



# CITY OF KIRKLAND

## CITY COUNCIL

Penny Sweet, Mayor • Jay Arnold, Deputy Mayor • Neal Black • Kelli Curtis  
Amy Falcone • Toby Nixon • Jon Pascal • Kurt Triplett, City Manager

### *Vision Statement*

*Kirkland is one of the most livable cities in America. We are a vibrant, attractive, green and welcoming place to live, work and play. Civic engagement, innovation and diversity are highly valued. We are respectful, fair and inclusive. We honor our rich heritage while embracing the future. Kirkland strives to be a model, sustainable city that values preserving and enhancing our natural environment for our enjoyment and future generations.*

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## AGENDA

### KIRKLAND CITY COUNCIL MEETING

#### City Council Chamber

#### Tuesday, April 7, 2020

#### 7:30 p.m.

COUNCIL AGENDA materials are available on the City of Kirkland website [www.kirklandwa.gov](http://www.kirklandwa.gov). Information regarding specific agenda topics may also be obtained from the City Clerk's Office on the Friday preceding the Council meeting. You are encouraged to call the City Clerk's Office (425-587-3190) or the City Manager's Office (425-587-3001) if you have any questions concerning City Council meetings, City services, or other municipal matters. The City of Kirkland strives to accommodate people with disabilities. Please contact the City Clerk's Office at 425-587-3190. If you should experience difficulty hearing the proceedings, please bring this to the attention of the Council by raising your hand.

**PLEASE CALL 48 HOURS IN ADVANCE** (425-587-3190) if you require this content in an alternate format or if you need a sign language interpreter in attendance at this meeting.

#### ITEMS FROM THE AUDIENCE

provides an opportunity for members of the public to address the Council on any subject which is not of a quasi-judicial nature or scheduled for a public hearing. (Items which may not be addressed under Items from the Audience are indicated by an asterisk\*.) The Council will receive comments on other issues, whether the matter is otherwise on the agenda for the same meeting or not. Speaker's remarks will be limited to three minutes apiece. No more than three speakers may address the Council on any one subject. However, if both proponents and opponents wish to speak, then up to three proponents and up to three opponents of the matter may address the Council.

**PUBLIC HEARINGS** are held to receive public comment on important matters before the Council. You are welcome to offer your comments after being recognized by the Mayor. After all persons have spoken, the hearing is closed to public comment and the Council proceeds with its deliberation and decision making.

1. *CALL TO ORDER*
2. *ROLL CALL*
3. *STUDY SESSION*
4. *HONORS AND PROCLAMATIONS*
  - a. YWCA Stand Against Racism Day Proclamation
  - b. 2020 Sexual Assault Awareness Month Proclamation
5. *COMMUNICATIONS*
  - a. *Announcements*
  - b. *Items from the Audience*
  - c. *Petitions*
6. *PUBLIC HEARINGS*
7. *SPECIAL PRESENTATIONS*
  - a. COVID-19 Update

*8. CONSENT CALENDAR**a. Approval of Minutes*

- (1) March 16, 2020
- (2) March 17, 2020
- (3) March 23, 2020
- (4) March 25, 2020
- (5) March 26, 2020
- (6) March 27, 2020
- (7) March 30, 2020
- (8) March 31, 2020

*b. Audit of Accounts and Payment of Bills and Payroll**c. General Correspondence**d. Claims*

- (1) Claims for Damages

*e. Award of Bids**f. Acceptance of Public Improvements and Establishing Lien Period**g. Approval of Agreements**h. Other Items of Business*

- (1) January/February 2020 Sales Tax Reports
- (2) Ordinance O-4718 and its Summary, Relating to Parking, Prohibited Conduct, Trespass Warnings and the Peter Kirk Municipal Garage
- (3) Lake Washington School District Impact Fee Annual Report
- (4) 2020-2022 Police Guild Commissioned Collective Bargaining Agreement
- (5) Procurement Report

*9. BUSINESS**a. Build America Bond Refunding Recommendation*

- (1) Ordinance O-4719 and its Summary, Authorizing the Issuance of Limited Tax General Obligation Refunding Bonds in the Aggregate Principal Amount of Not to Exceed \$30,250,000 for the Purpose of Refunding Certain Outstanding General Obligation Bonds of the City and Paying Costs of Issuing the Bonds; Delegating Certain Authority to Approve

**\*QUASI-JUDICIAL MATTERS** Public comments are not taken on quasi-judicial matters, where the Council acts in the role of judges. The Council is legally required to decide the issue based solely upon information contained in the public record and obtained at special public hearings before the Council. The public record for quasi-judicial matters is developed from testimony at earlier public hearings held before a Hearing Examiner, the Houghton Community Council, or a city board or commission, as well as from written correspondence submitted within certain legal time frames. There are special guidelines for these public hearings and written submittals.

**ORDINANCES** are legislative acts or local laws. They are the most permanent and binding form of Council action, and may be changed or repealed only by a subsequent ordinance. Ordinances normally become effective five days after the ordinance is published in the City's official newspaper.



the Method of Sale and Final Terms of the Bonds; and Authorizing  
Other Related Matters

**RESOLUTIONS** are adopted to express the policy of the Council, or to direct certain types of administrative action. A resolution may be changed by adoption of a subsequent resolution.

b. Community Safety Advisory Group Recommendation

- (1) DRAFT Resolution R-5413, Accepting the Community Safety Advisory Group's Report and Directing the City Manager to Return to the Council with Two Ordinances Authorizing the City to go to the Ballot

c. Shoreline Master Program – Final Adoption

- (1) Ordinance O-4700, Relating to Comprehensive Planning and Land Use and Amending the Comprehensive Plan Ordinance 3481, as Amended, to Update Chapter XVI Shoreline Area and Approving a Summary for Publication File No. CAM19-00026
- (2) Ordinance O-4701, Relating to Zoning, Planning, and Land Use and Amending the Kirkland Zoning Code (Ordinance 3719 as Amended) Including Chapters 5, 83, 90, 141, 180, and Approving a Summary Ordinance for Publication File No. CAM19-00026
- (3) Review of Potential Long-Range Planning Work Program Item
  - (a) Non-Conforming Overwater Structures

**ITEMS FROM THE AUDIENCE**

Unless it is 10:00 p.m. or later, speakers may continue to address the Council during an additional Items from the Audience period; provided, that the total amount of time allotted for the additional Items from the Audience period shall not exceed 15 minutes. A speaker who addressed the Council during the earlier Items from the Audience period may speak again, and on the same subject, however, speakers who have not yet addressed the Council will be given priority. All other limitations as to time, number of speakers, quasi-judicial matters, and public hearings discussed above shall apply.

**10. REPORTS**

a. *City Council Regional and Committee Reports*

b. *City Manager Reports*

- (1) Calendar Update

**11. ITEMS FROM THE AUDIENCE**

**12. ADJOURNMENT**

**EXECUTIVE SESSIONS** may be held by the City Council only for the purposes specified in RCW 42.30.110. These include buying and selling real property, certain personnel issues, and litigation. The Council is permitted by law to have a closed meeting to discuss labor negotiations, including strategy discussions.



**CITY OF KIRKLAND**  
**Parks & Community Services**  
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## MEMORANDUM

**To:** Kurt Triplett, City Manager

**From:** Lynn Zwaagstra, Director  
Leslie R Miller, Human Services Supervisor

**Date:** March 26, 2020

**Subject:** 2020 YWCA USA'S STAND AGAINST RACISM CAMPAIGN PROCLAMATION

## RECOMMENDATION:

That the Mayor proclaim April 23-26, 2020 as YWCA USA's Stand Against Racism Weekend.

## BACKGROUND DISCUSSION:

Stand Against Racism is a signature campaign of YWCA USA to build community among those who work for racial justice and to raise awareness about the negative impact of institutional and structural racism in communities. This campaign is one part of its larger national strategy to fulfill its mission of eliminating racism. This campaign provides an opportunity for our community to reflect on institutional and structural racism and be intentional with our own reflection and commitment.

As efforts gear up for the 2020 Census, YWCA USA has selected "Civic Engagement" as the theme for this year's efforts. Voting rights, census participation, and civic engagement are, and have always been, core components of racial justice. It is more important than ever to support full access and engagement for marginalized communities, especially women and girls of color, in the political process. More information is available at [www.standagainstracism.org](http://www.standagainstracism.org)

The 10<sup>th</sup> anniversary of the Stand Against Racism event in Seattle, hosted by the People of Color Executive Council (POCEC) of YWCA Seattle | King | Snohomish has rescheduled its event to September 30, 2020. More information is available here <https://www.ywcaworks.org/events/2020-09-30/10th-annual-stand-against-racism>

Below is a pledge that the YWCA USA encourages all of us to take.

### *STAND AGAINST RACISM PLEDGE\**

*Mindful of the continuing affliction of institutional and structural racism as well as the daily realities of all forms of bias, prejudice, and bigotry in my own life, my family, my circle of friends, my co-workers, and the society in which I live, with conviction and hope:*

*I take this pledge, fully aware that the struggle to eliminate racism will not end with a mere pledge but calls for an ongoing transformation within myself and the institutions and structures of our society.*

*I pledge to look deeply and continuously in my heart and in my mind to identify all signs and vestiges of racism; to rebuke the use of racist language and behavior towards others; to root out such racism in my daily life and in my encounters with persons I know and with strangers I do not know; and to expand my consciousness to be more aware and sensitive to my use of overt and subtle expressions of racism and racial stereotypes;*

*I pledge to educate myself on racial justice issues and share what I learn in my own communities even if it means challenging my family, my partner, my children, my friends, my co-workers, and those I encounter on a daily basis;*

*I pledge, within my means, to actively work to support public policy solutions that prominently, openly, and enthusiastically promote racial equity in all aspects of human affairs; and to actively support and devote my time to YWCA, as well as other organizations working to eradicate racism from our society.*

*YWCA USA is on a mission to eliminate racism and empower women. I join YWCA in taking a stand against racism today and every day.*

#### Racism and COVID-19

Our community's experience the COVID-19 pandemic also reinforces the need to stand against racism and embody our community's values of being safe, inclusive, and welcoming. This outbreak of COVID-19 carries with it the threat of xenophobia, racism, and bigotry. No race, nationality, or ethnicity is more likely to have COVID-19. Racism has no place in Kirkland and halting the spread of bigotry is also critical to keep our community safe.

\*This pledge has been adapted by YWCA USA from the Pledge to Eliminate Racism in My Life, YWCA Bergen County which is an adaptation of the Pledge to Heal Racism in My Life, Interfaith Communities United for Justice and Peace, April 10, 2006.



## A PROCLAMATION OF THE CITY OF KIRKLAND

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### **Proclaiming April 23-26 as "YWCA Stand Against Racism Weekend" in Kirkland, Washington**

**WHEREAS**, all residents regardless of race, creed or ethnicity deserve to be treated with dignity, respect, compassion and justice; and

**WHEREAS**, on February 21, 2017 the City of Kirkland adopted Resolution R-5240, declaring Kirkland as a Safe, Inclusive and Welcoming City for All People; and

**WHEREAS**, Kirkland residents value initiatives to end race-based disparities and make the world a more equitable, inclusive and dignified place for all, and as the current COVID-19 pandemic carries the threat of xenophobia, racism, and bigotry, standing against racism is critical because no race, nationality or ethnicity is more likely to have COVID-19; and

**WHEREAS**, the elimination of racism can be achieved only with the participation of all residents in dialogue, reflection and action; and

**WHEREAS**, the City of Kirkland supports the YWCA's mission to eliminate racial inequalities in employment, education, healthcare, housing, human services and other areas that affect quality of life; and

**WHEREAS**, April 23-26, 2020 marks the occasion of the annual "Stand Against Racism Weekend," a signature campaign of YWCA designed to build community among those who work for racial justice and to raise awareness about the negative impacts of institutional and structural racism;

**NOW, THEREFORE**, I, Penny Sweet, Mayor of Kirkland, do hereby proclaim April 23-26, 2020 as "YWCA Stand Against Racism Weekend" in our City and encourage residents, local businesses, educators, and community and faith-based organizations to celebrate diversity and advocate for the elimination of racism.

Signed this 7<sup>th</sup> day of April, 2020

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Penny Sweet, Mayor



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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Lynn Zwaagstra, Director  
Leslie R Miller, Human Services Supervisor  
Regi Schubiger, Program Coordinator

**Date:** March 26, 2020

**Subject:** 2020 SEXUAL ASSAULT AWARENESS MONTH PROCLAMATION

### **RECOMMENDATION:**

That the Mayor proclaim April 2020 as Sexual Assault Awareness Month in Kirkland, Washington.

### **BACKGROUND DISCUSSION:**

Sexual violence is a major public health, human rights and social justice issue. King County Sexual Assault Resource Center provides services to Kirkland residents and all of King County. Its purpose is to alleviate, as much as possible, the trauma of sexual assault for victims and their families. Their current message is to join them in demanding change: BE LOUD! BE LOUD is a rallying cry that encourages supporters, leaders, and the community to speak up about sexual violence. Demand a world without sexual violence. Challenge norms by taking a stand in difficult conversations about sexual violence. Don't excuse victim-blaming.

The national theme for this year's Sexual Assault Awareness Month is "I Ask." The campaign theme, I Ask, champions the message that asking for consent is a healthy, normal, and necessary part of everyday interactions. You can find more information about national Sexual Assault Awareness Month efforts and resources [here](#).

With directives by the Governor to "Stay Home, Stay Healthy" incidents of domestic violence are increasing as people are forced to shelter in place and stress levels rise due to psychological and economic impacts. Now, more than ever, is the time to stand against domestic violence and call on everyone to join the fight to end it. To bring awareness to this issue in Kirkland, staff will share this proclamation and links to KSCARC resources via the City of Kirkland website and social media.

Prevention is possible when everyone gets involved. KCSARC encourages us to talk to the young people in our lives about consent and healthy relationships. Use [He Told Me Not To Tell](#) (for conversations with children) and [100 Conversations](#) (for conversations with youth) to guide your discussions.

KCSARC offers resources for victims, their families and the community. KCSARC is available 24-hours a day through their Resource Line, which is staffed by professional advocates. This is the only resource of its kind in King County. 888.99.VOICE

KCSARC's content-rich website is also a good resource for tips on prevention as well as survivors and families. [www.kcsarc.org](http://www.kcsarc.org)



## A PROCLAMATION OF THE CITY OF KIRKLAND

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### Proclaiming Sexual Assault Awareness Month April 2020 in Kirkland

**Whereas**, in Washington State, 45% of women and 22% of men report having experienced sexual violence in their lifetime.

**Whereas**, the risk is even higher for people of color, refugees, immigrants, LGBTQ and other marginalized community members; one recent study shows 94% of Native American women in Seattle report they have been sexually assaulted; and

**Whereas**, in King County, more than 7,000 adults and children received specialized assistance from organizations with programming for sexual assault victims in 2019; and

**Whereas**, of the 4,903 individuals served by the King County Sexual Assault Resource Center in 2019, almost half were children, and nationally, 1 in 5 children under 18 are sexually abused; and

**Whereas**, in 2016, 18% of 10th graders in Washington reported that they had been made to engage in unwanted kissing or sexual contact; and

**Whereas**, negative impacts of sexual violence trauma on women, men, children and youth include fear, concern for safety, symptoms of post-traumatic stress disorder, injury, and missed work or school; and

**Whereas**, incidents of domestic violence are rising during the COVID-19 pandemic, as families are sheltering in place during times of significant psychological, emotional and economic stress; and

**Whereas**, working together to educate our community about sexual violence, supporting survivors when they come forward, speaking out against harmful attitudes and actions, and engaging in best-practice sexual violence prevention work helps end sexual violence.

**NOW, THEREFORE**, I, Penny Sweet, Mayor of Kirkland join advocates and communities throughout King County in taking action to prevent sexual violence by standing with survivors and proclaiming April 2020 Sexual Assault Awareness Month.

Together, we commit to a safer future for all children, young people, adults, and families in our community.

Signed this 7th day of April, 2020

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Penny Sweet, Mayor

## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 16, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 5:30 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett provided the City Council with an update on the status of current events and planned actions in response to the public health emergency, and responded to Council questions.

Councilmember Falcone moved to conduct the March 17, 2020 regular study session and meeting using virtual technology; Councilmember Nixon seconded the motion, which carried unanimously.

Councilmember Curtis moved to cancel/postpone the March 17 and 19, 2020 City Council special meetings to conduct Board and Commission interviews to the end of April; Councilmember Pascal seconded the motion, which carried unanimously.

#### **4. ADJOURNMENT**

The March 16, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 6:14 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor





KIRKLAND CITY COUNCIL MEETING MINUTES  
March 17, 2020

1. CALL TO ORDER

Mayor Sweet called the study session to order at 5:30 p.m. and called the regular meeting to order at 7:30 p.m.

2. ROLL CALL

ROLL CALL:

Members Present: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

Members Absent: None.

3. STUDY SESSION

a. Athletic Field Rentals Cost Recovery

Parks and Community Services Director Lynn Zwaagstra, Deputy Director John Lloyd, Recreation Manager Linda Murphy, Recreation Supervisor Jairid Hoehn, and Program Coordinator Nicci Osborn reviewed work to date related to cost recovery and received Council feedback on the placement of Athletic Field Rentals into the resource allocation model and field use equity.

b. NE 85th Street Station Area Plan

Senior Planner Allison Zike introduced a presentation by the City's lead consultant for the project, Mithun Project Manager Erin Ishizaki and Deputy Project Manager Brad Barnett and reviewed key issues for Council discussion and next steps.

Council recessed for a short break prior to their regular meeting.

• MAYOR'S STATEMENT ON COVID-19

Mayor Sweet shared her thoughts on the current response by the City, County and community to the COVID-19 outbreak.

4. HONORS AND PROCLAMATIONS

a. Prudential Spirit of Community Award Honoree Sanika Datar Proclamation

Mayor Sweet read the proclamation honoring Ms. Datar.

5. COMMUNICATIONS

a. Announcements

b. Items from the Audience

Email comments received from Noah Delfs, Gina Clark, Ann Schulz, Larry Toedtli, Jesse Zook Mann, Nicole MacKenzie, Randy Bannecker, John Rudolph, and Marylee Tyler were summarized by the City Manager. Voicemail comments from Aron Healy, April Petersen and John Chadwick were played followed by a slide presentation submitted by Ken MacKenzie.

c. Petitions

6. PUBLIC HEARINGS

None.

7. SPECIAL PRESENTATIONS

a. COVID-19 Update

City Manager Kurt Triplett provided an overview of the City of Kirkland's response to the COVID-19 outbreak. Assistant City Manager Jim Lopez the updated the Council on efforts focused on business support and human services support.

b. Community Safety Advisory Group Update

Management Analyst Andreana Campbell provided an update on an initial recommendation regarding a possible 2020 Fire and Emergency Medical Services ballot measure and received Council feedback on draft survey questions.

c. Ordinance O-4718, Relating to the Parking, Prohibited Conduct, Trespass Warnings and the Peter Kirk Municipal Garage

Public Works Deputy Director John Starbard provided an overview about improvements underway and the proposed ordinance, in addition to information related to downtown parking programs.

8. CONSENT CALENDAR

a. Approval of Minutes

(1) March 3, 2020

(2) March 4, 2020

b. Audit of Accounts and Payment of Bills and Payroll

Payroll: \$3,066,413.16  
Bills: \$3,731,322.55  
CA30420 711379-711478  
LB306A Wire #s 159, 160  
CA31120 711479-711612  
LB316A Wire #162

c. General Correspondence

d. Claims

(1) Claims for Damage

A claim received from Sun Gil Kim was acknowledged via approval of the consent calendar.

e. Award of Bids

(1) 2019 Neighborhood Safety Program

A construction contract for the 2019 Neighborhood Safety Program (NSP) was awarded to NPM Construction of Maple Valley, Washington in the amount of \$375,128.60; and the transfer of \$123,157 from the School Safety Zone Camera Program to fund the rapid flashing beacon crosswalk improvement in Evergreen Hill/Kingsgate on NE 132nd Street at 129th Avenue NE was approved via approval of the consent calendar.

(2) Mobile Fire Training Simulator

A procurement contract was awarded to Fire Training Structures, LLC, of Phoenix, Arizona, in the amount of 249,895.07 for a mobile fire training simulator via approval of the consent calendar.

f. Acceptance of Public Improvements and Establishing Lien Period

(1) 3rd Street Watermain Improvement Project

The work on the 3rd Street Watermain Improvement (Project) as constructed by Shoreline Construction of Woodinville, Washington, was accepted, thereby establishing the statutory lien period; and excess funds of \$33,455.00 were returned to the Water/Sewer Reserve via approval of the consent calendar.

## (2) Goat Hill Storm Drainage Repair Project

The work performed on the Goat Hill Storm Drainage Repair Project by Grade Inc. of Monroe Washington was accepted, thereby establishing the statutory lien period, via approval of the consent calendar.

## (3) Kirkland Justice Center Water Intrusion Repairs

The work for water intrusion repairs at the Kirkland Justice Center, as completed by Leewens Corporation of Kirkland, Washington was accepted; and the remaining funds \$11,456.50 will be retained in the Public Safety Building project (GGC 0131 400) via approval of the consent calendar.

## g. Approval of Agreements

## h. Other Items of Business

## (1) January 2020 Financial Dashboard Report

The report was acknowledged via approval of the consent calendar.

## (2) Resolution R-5412, entitled "A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND PERTAINING TO THE ADOPTION OF THE 2020-2021 TRANSPORTATION COMMISSION WORK PLAN."

The resolution was approved via approval of the consent calendar.

## (3) Surplus of Rental Vehicles/Equipment

<b>Fleet #</b>	<b>Year</b>	<b>Make &amp; Model</b>	<b>License</b>	<b>Hours/Miles</b>
BG-10	2011	John Deere Turf Gator	N/A	352 hrs.
TR-10	2003	John Deere Tractor 5420	N/A	2,502 hrs.
T-04	2007	Ford E450 18 Passenger Bus	44150D	123,394

## (4) Fire Station 27 Leaseholder Settlement Agreement

Council authorized the City Manager to enter into settlement agreements with the three dentist tenants at the property located at 13118 121st Way NE. These agreements settle relocation costs associated with the acquisition under threat of condemnation of this property for the future site of Fire Station 27. By approving the consent agenda, Council authorizes the City Manager to enter into the agreements and approves the attached fiscal notes.

Motion to Approve the consent calendar.

Moved by Councilmember Jon Pascal, seconded by Councilmember Kelli Curtis

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

Council recessed for a short break.

9. BUSINESS

a. 2020 State Legislative Update #5

Management Analyst Andreana Campbell provided the final update on the legislative activities related to the City's adopted 2020 legislative priorities.

b. Missing Middle Code Amendments – Adoption

Senior Planner Dorian Collins provided an overview of the proposed ordinances amending the Kirkland Zoning Code and the Kirkland Municipal Code related to "Missing Middle" housing.

- (1) Ordinance O-4715, Relating to Zoning, and Land Use and Amending the Kirkland Zoning Code, Ordinance 3719 as Amended, Including Chapters 5, and 115, and Approving a Summary Ordinance for Publication, File No. CAM19-00282

Motion to Approve Ordinance O-4715 and it's summary, entitled "AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO ZONING, AND LAND USE AND AMENDING THE KIRKLAND ZONING CODE, ORDINANCE 3719 AS AMENDED, INCLUDING CHAPTERS 5, AND 115, AND APPROVING A SUMMARY ORDINANCE FOR PUBLICATION, FILE NO. CAM19-00282."

Moved by Councilmember Neal Black, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

Motion to Divide the question in to three separate questions, one for each ordinance.

Moved by Councilmember Toby Nixon, seconded by Deputy Mayor Jay Arnold

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

- (2) Ordinance O-4716, Relating to Subdivision of Land and Amending Ordinance No. 3705 as Amended, the Subdivision Ordinance and Approving a Summary for Publication File No. CAM19-00282

Motion to Approve Ordinance O-4716 and its summary, entitled "AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO SUBDIVISION OF LAND AND AMENDING ORDINANCE NO. 3705 AS AMENDED, THE KIRKLAND SUBDIVISION ORDINANCE AND APPROVING A SUMMARY FOR PUBLICATION FILE NO. CAM19-00282."

Moved by Councilmember Neal Black, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

- (3) Ordinance O-4717, Relating to Zoning, and Land Use and Amending the Kirkland Zoning Code, Ordinance 3719 as Amended, Including Chapters 20, 25 and 113, and Approving a Summary Ordinance for Publication, File No. CAM19-00152

Motion to Approve Ordinance O-4717 and its summary, entitled "AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO ZONING, AND LAND USE AND AMENDING THE KIRKLAND ZONING CODE, ORDINANCE 3719 AS AMENDED, INCLUDING CHAPTERS 20, 25 AND 113, AND APPROVING A SUMMARY ORDINANCE FOR PUBLICATION, FILE NO. CAM19-00152."

Moved by Councilmember Neal Black, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

c. Boards and Commissions

Motion to Suspend the Council's rules, in support of Resolution R-5411 and the Proclamation of Emergency dated February 29, 2020 related to the COVID-19 virus, pursuant to Section 3.19 of the Council's policies and procedures in order to permit the Council to consider an interim approach to City board and commission appointments.

Moved by Deputy Mayor Jay Arnold, seconded by Councilmember Kelli Curtis

Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

Motion to Suspend the City board and commission process temporarily during the COVID-19 emergency, notwithstanding Chapter 8 of the Council's policies and procedures; provided, however, that all individuals formally seeking reappointment to new board and commission terms, including those related to the tourism development committee, shall be reappointed to those new terms; and, provided, further, that all remaining and current board and commission members with expiring terms shall continue to serve on such boards and commissions until such time as their successors have been appointed.

Moved by Deputy Mayor Jay Arnold, seconded by Councilmember Neal Black  
Vote: Motion carried 7-0

Yes: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

## 10. REPORTS

### a. City Council Regional and Committee Reports

Councilmembers shared information regarding a meeting with Port Commissioner Sam Cho; and an upcoming Cooper Jones Active Transportation Safety Council.

### b. City Manager Reports

#### (1) Potential Transit Ballot Measure/Transit Service Update

City Manager Kurt Triplett reported that King County Council has concluded it will not be seeking a ballot measure this year; the Metro transit routes have taken effect; the City will be assisting King County with outreach by communicating the new route changes impacting the Kirkland area.

#### (2) Calendar Update

Kurt Triplett reported on the beginnings of secondary impacts of COVID-19 on City project timelines and costs.

## 11. ITEMS FROM THE AUDIENCE

None.

## 12. EXECUTIVE SESSION

### a. To Discuss Potential Litigation

Mayor Sweet announced that the Council would enter into executive session to discuss potential litigation and would return to the regular meeting at 10:20 p.m. Also attending the session were City Manager Kurt Triplett, and City Attorney Kevin Raymond.

13. ADJOURNMENT

The Kirkland City Council regular meeting of March 17, 2020 was adjourned at 10:21 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor



## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 23, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 8:00 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett provided the City Council with an update on the status of current events and planned actions in response to the public health emergency.

#### **4. ADJOURNMENT**

The March 23, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 9:18 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor

## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 25, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 5:30 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett and Assistant City Manager James Lopez provided the City Council with updates on the status of current events and planned actions in response to the public health emergency.

#### **4. ADJOURNMENT**

The March 25, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 6:58 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor

## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 26, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 5:30 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett provided the City Council with an update on the status of current events and planned actions in response to the public health emergency, and responded to Council questions.

#### **4. ADJOURNMENT**

The March 26, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 6:14 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor

## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 27, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 5:30 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett provided the City Council with an update on the status of current events and planned actions in response to the public health emergency, and responded to Council questions.

#### **4. ADJOURNMENT**

The March 27, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 6:10 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor

## **KIRKLAND CITY COUNCIL EMERGENCY MEETING**

**Virtual/Teleconference  
March 30, 2020**

### **Minutes**

#### **1. CALL TO ORDER**

The teleconference meeting was established at 6:02 p.m.; the City Council attended via teleconference call due to the emergent circumstances.

#### **2. ROLL CALL**

Present: Mayor Penny Sweet, Deputy Mayor Jay Arnold and Councilmembers Neal Black, Kelli Curtis, Amy Falcone, Toby Nixon and Jon Pascal.

#### **3. Status/Response to Coronavirus/COVID-19 Outbreak**

City Manager Kurt Triplett provided the City Council with an update on the status of current events and planned actions in response to the public health emergency, and responded to Council questions.

#### **4. ADJOURNMENT**

The March 30, 2020 emergency teleconference meeting of the Kirkland City Council was concluded/adjourned at 6:37 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor



KIRKLAND CITY COUNCIL SPECIAL MEETING MINUTES  
March 31, 2020

1. CALL TO ORDER

Mayor Sweet called the special meeting to order at 5:30 p.m.

2. ROLL CALL

ROLL CALL:

Members Present: Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, Councilmember Jon Pascal, and Mayor Penny Sweet.

Members Absent: None.

3. Resolution R-5414, Ratifying City Manager Emergency Directive Related to Moratorium on Small Business Tenant Evictions and the COVID-19 Virus

City Attorney Kevin Raymond provided an overview of the directive and responded to Council questions.

Motion to Approve Resolution R-5414, entitled "A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND RATIFYING CITY MANAGER EMERGENCY DIRECTIVE RELATED TO MORATORIUM ON SMALL BUSINESS TENANT EVICTIONS AND THE COVID-19 VIRUS."

Moved by Councilmember Kelli Curtis, seconded by Councilmember Jon Pascal

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

4. Ordinance O-4721, Relating to Emergency Management and Knowing Violation of the Lawful Order of a Public Officer During an Emergency or Disaster and Declaring an Emergency

City Attorney Kevin Raymond provided an overview of the proposed ordinance and responded to Council questions.

Motion to Approve Ordinance O-4721, entitled "AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO EMERGENCY MANAGEMENT AND KNOWING VIOLATION OF THE LAWFUL ORDER OF A PUBLIC OFFICER DURING AN EMERGENCY OR DISASTER AND DECLARING AN EMERGENCY, as amended."

Moved by Deputy Mayor Jay Arnold, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

Motion to Amend Ordinance O-4721, to apply to the current COVID-19 public health emergency only, as amended.

Moved by Councilmember Amy Falcone, seconded by Councilmember Jon Pascal

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

Motion to Amend the amendment to Ordinance O-4721, by adding an expiration date of April 30, 2020.

Moved by Deputy Mayor Jay Arnold, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

5. Ordinance O-4722, Relating to Authorization and Direction to the Director of Finance and Administration on a Temporary Basis and in the Appropriate Extenuating Circumstances to Temporarily Defer and Suspend the Collection of all Utility Charges and Taxes Within Titles Five and Seven of the Kirkland Municipal Code and to Waive any Late Fees, Penalties or Interest That Would Otherwise Accrue as a Result of Such Late Payments and Declaring an Emergency

City Attorney Kevin Raymond provided an overview of the proposed ordinance and responded to Council questions.

Motion to Approve Ordinance O-4722, entitled "AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO AUTHORIZATION AND DIRECTION TO THE DIRECTOR OF FINANCE AND ADMINISTRATION ON A TEMPORARY BASIS AND IN THE APPROPRIATE EXTENUATING CIRCUMSTANCES TO TEMPORARILY DEFER AND SUSPEND THE COLLECTION OF ALL UTILITY CHARGES AND TAXES WITHIN TITLES FIVE AND SEVEN OF THE KIRKLAND MUNICIPAL CODE AND TO WAIVE ANY LATE FEES, PENALTIES OR INTEREST THAT WOULD OTHERWISE ACCRUE AS A RESULT OF SUCH LATE PAYMENTS AND DECLARING AN EMERGENCY."

Moved by Councilmember Kelli Curtis, seconded by Councilmember Amy Falcone

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

6. Resolution R-5415, Approving a Human Services Stabilization Initiative and its Fiscal Note

City Manager Kurt Triplett provided an overview of the proposed resolution and responded to Council questions.

Motion to Approve Resolution R-5415, entitled "A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND APPROVING A HUMAN SERVICES STABILIZATION INITIATIVE AND ITS FISCAL NOTE AND PROVIDING FOR THE PROVISION OF 2020 CONTRACTED GRANT AMOUNTS AND THE WAIVER OF AGENCY SERVICE GOAL REQUIREMENTS IN RESPONSE TO THE COVID-19 PANDEMIC EMERGENCY."

Moved by Councilmember Amy Falcone, seconded by Councilmember Kelli Curtis

Vote: Motion carried 7-0

Yes: Mayor Penny Sweet, Deputy Mayor Jay Arnold, Councilmember Neal Black, Councilmember Kelli Curtis, Councilmember Amy Falcone, Councilmember Toby Nixon, and Councilmember Jon Pascal.

7. COVID-19 Update

- a. City Manager Kurt Triplett shared information related to the April 7, 2020 City Council meeting; adding a COVID-19 update to future meetings; steps taken to comply with the Governor's proclamation that council meetings only address "necessary and routine matters." Deputy Mayor Jay Arnold reported on a legislative workgroup meeting to review the Federal CARES act and review the Association of Washington Cities list of requests for executive orders from the Governor.

8. ADJOURNMENT

The Kirkland City Council special meeting of March 31, 2020 was adjourned at 6:46 p.m.

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Kathi Anderson, City Clerk

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Penny Sweet, Mayor





**CITY OF KIRKLAND**  
**Department of Finance and Administration**  
**123 Fifth Avenue, Kirkland, WA 98033 425.587.3100**  
**www.kirklandwa.gov**

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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager  
**From:** Kathi Anderson, City Clerk  
**Date:** April 7, 2020  
**Subject:** CLAIM(S) FOR DAMAGES

### **RECOMMENDATION**

It is recommended that the City Council acknowledge receipt of the following Claim(s) for Damages and refer each claim to the proper department (risk management section) for disposition.

### **POLICY IMPLICATIONS**

This is consistent with City policy and procedure and is in accordance with the requirements of state law (RCW 35.31.040).

### **BACKGROUND DISCUSSION**

The City has received the following Claim(s) for Damages from:

- (1) Andrew and Letty Cherry  
5908 111<sup>th</sup> Place NE  
Kirkland, WA 98033

**Amount:** To be determined

**Nature of Claim:** Claimant states damage occurred to residential property resulting from a water main break.

- (2) Takeshi Matsumoto  
P.O Box 33103  
Seattle, WA 98133

**Amount:** \$82.20

**Nature of Claim:** Claimant states damage to his personal vehicle tire resulted from striking a displaced manhole cover while driving on Simonds Road NE.

**Note:** Names of Claimants are no longer listed on the Agenda since names are listed in the memo.



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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Michael Olson, Director of Finance and Administration  
David Goldman, Deputy Director of Finance & Administration  
Robby Perkins-High, Senior Financial Analyst

**Date:** March 24, 2020

**Subject:** MONTHLY SALES TAX REPORTS

### **RECOMMENDATION:**

It is recommended that the City Council receive the monthly Sales Tax Reports.

### **BACKGROUND DISCUSSION**

These reports were previously provided to the Council Finance and Administration Committee and will now be presented to the City Council each month on the consent agenda. Finance staffing transitions have slowed some of the reporting. Providing the Council with both reports on April 7<sup>th</sup> brings the reports current. In the future the Council will only receive one monthly report.

The Sales Tax Report reports on the amount of sales tax Kirkland has received by Business Sector. The report presents the sales tax information by comparing the monthly sales tax amount to the prior year's monthly collection, as well as year-to-date actuals compared to the performance of the prior year. The report includes the performance of key economic indicators that may influence sales tax revenue as well.

The impacts to sales tax collections related to COVID19 will first be seen in the May Sales Tax Report as collections in March are remitted in May. In the interim, Financial Planning will complete an analysis of sales tax contributions by sector, as well as projections on which sectors are expected to be most impacted by the virus and associated regulation changes. Staff continue to monitor and project all city revenues that will be affected by COVID-19.



## CITY OF KIRKLAND

### Department of Finance & Administration

123 Fifth Avenue, Kirkland, WA 98033 425.587.3100

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## MEMORANDUM

**To:** Kurt Triplett, City Manager

**From:** Michael Olson, Director of Finance & Administration  
David Goldman, Deputy Director of Finance & Administration  
Robby Perkins-High, Senior Financial Analyst

**Date:** March 19, 2020

**Subject:** January Sales Tax Revenue

January results reflect sales activity in November, due to the two-month lag in reporting sales tax data. Monthly sales tax revenue is **6.4 percent higher** than January 2019. Sector groups exhibiting growth included Contracting, Retail Eating/Drinking, and Auto Gas/Retail, while Communications and General Merchandise/Retail declined. The following sections discuss the highlights by business sector of the month-over-month analysis and year-to-date revenue as well as key economic variables that impact sales tax.

### Comparing January 2020 to January 2019

Comparing collections from the month of January this year and last year provides a better insight into business sector performance, controlling for seasonal cycles in sales, as well as occasional adjustments.

#### 2020 Sales Tax Receipts by Business Sector-Monthly Actuals

Business Sector Group	January		Dollar Change	Percent Change	Percent of Total	
	2019	2020			2019	2020
Services	273,026	267,760	(5,265)	-1.9%	13.0%	12.0%
Contracting	419,734	560,093	140,359	33.4%	20.0%	25.0%
Communications	52,713	38,303	(14,410)	-27.3%	2.5%	1.7%
Retail:						
Auto/Gas Retail	522,521	543,155	20,633	3.9%	24.8%	24.3%
Gen Merch/Misc Retail	232,329	222,820	(9,508)	-4.1%	11.0%	10.0%
Retail Eating/Drinking	138,678	146,841	8,163	5.9%	6.6%	6.6%
Other Retail	276,231	277,425	1,194	0.4%	13.1%	12.4%
Wholesale	84,637	80,764	(3,873)	-4.6%	4.0%	3.6%
Miscellaneous	103,251	101,187	(2,065)	-2.0%	4.9%	4.5%
<b>Total</b>	<b>2,103,118</b>	<b>2,238,348</b>	<b>135,229</b>	<b>6.4%</b>	<b>100%</b>	<b>100%</b>

Comparing month-over-month growth, January sales tax collections this year are **\$135,229 (6.4 percent)** higher than January 2019. Following the trend from previous months, **Contracting** was once again the lead contributor, rising by **\$140,359 (33.4 percent)**. This accounted for more than 100% of the overall sales tax growth. Without this growth from Contracting, the month-over-month growth would have been -0.3 percent. The next largest contributors were **Auto/Gas Retail**, which grew by **\$20,633 (3.9 percent)**, and **Retail Eating/Drinking** which showed an uptick of **\$8,163 (5.9 percent)**.

**Communications** decreased significantly by **\$14,410 (27.3 percent)**, continuing a several month-long downward trend. **General Merchandise/Miscellaneous Retail** had the second largest decline at a decrease of **\$9,508 (4.1 percent)**.

## Year-to-Date Review

### City of Kirkland Actual Sales Tax Receipts

Business Sector Group	YTD		Dollar Change	Percent Change	Percent of Total	
	2019	2020			2019	2020
Services	273,026	267,760	(5,265)	-1.9%	13.0%	12.0%
Contracting	419,734	560,093	140,359	33.4%	20.0%	25.0%
Communications	52,713	38,303	(14,410)	-27.3%	2.5%	1.7%
Retail:						
Auto/Gas Retail	522,521	543,155	20,633	3.9%	24.8%	24.3%
Gen Merch/Misc Retail	232,329	222,820	(9,508)	-4.1%	11.0%	10.0%
Retail Eating/Drinking	138,678	146,841	8,163	5.9%	6.6%	6.6%
Other Retail	276,231	277,425	1,194	0.4%	13.1%	12.4%
Wholesale	84,637	80,764	(3,873)	-4.6%	4.0%	3.6%
Miscellaneous	103,251	101,187	(2,065)	-2.0%	4.9%	4.5%
<b>Total</b>	<b>2,103,119</b>	<b>2,238,348</b>	<b>135,229</b>	<b>6.4%</b>	<b>100%</b>	<b>100%</b>

As this is the first monthly sales tax report of 2020, the Year-to-Date trends mirror those presented in the monthly analysis section.

### Estimated Revenue Impact of Kirkland Urban and The Village at Totem Lake Redevelopment

Since July 2016, Financial Planning has been monitoring revenues from Contracting businesses known to be working on the redevelopment projects at Kirkland Urban and The Village at Totem Lake. Sales tax revenues through December 2019 from these projects, as shown by the following chart, have been a significant component of overall sales tax revenue growth.



From July 2016 to January 2020, the City has receipted close to **\$3.7 million** from companies known to be working on these large redevelopment projects. This represents over 19% of total collections from contracting over that period; however, this should be considered an *approximation* rather than a precise number, as this amount includes all activity from some contractors, even though some of their contributions may be from other locations within Kirkland. It also does not include sales tax from contracting firms that are only small contributors to these locations that are doing other work in Kirkland. The chart above also shows sales tax revenues from new businesses that have opened at The Village at Totem Lake. It is worth noting that for retailers with multiple locations in Kirkland, only a portion of their sales are allocated to the new businesses for the purpose of this chart.

## National and Regional Economic Context

Information about wider trends in the economy provides a mechanism to help understand current results in Kirkland, as well as to predict future performance. The combination of consumer confidence, unemployment levels, housing data, inflation and auto sales provides a broader economic context for key factors in sales tax revenues. The table below includes the most recently available data and prior month's readings, for some of the most relevant indicators.

### 2020 Wider Economic Indicators

Indicator	Most Recent Month of Data	Unit	Month			Yearly Average	
			Current	Previous	Change	2020	2019
Consumer Confidence							
Consumer Confidence Index	January	Index	130.4	126.5	3.9	N/A	128.1
Unemployment Rate							
National	January	%	3.6	3.5	0.1	N/A	3.7
Washington State	December	%	4.0	4.0	0.0	N/A	4.5
King County	November	%	2.3	2.7	(0.4)	N/A	3.0
Kirkland	December	%	2.0	2.2	(0.2)	N/A	2.9
Housing							
New House Permits	December	Thousands	56.8	61.5	(4.7)	N/A	48.7
Seattle Area Home Prices	December	Index	254.3	253.8	0.5	N/A	252.2
Inflation (CPI-W)							
National	January	% Change	2.5	2.3	0.2	N/A	1.7
Seattle	December	% Change	2.0	1.7	0.3	N/A	2.1
Car Sales							
New Vehicle Registrations	January	Thousands	23.3	22.8	0.5	N/A	23.7

The Conference Board **Consumer Confidence Index** was up in January, increasing to 130.4 from 126.5 in December.

The national **Unemployment Rate** in January rose slightly to 3.6 percent. Washington State unemployment maintained a level of 4.0 percent from October to December. King County unemployment also dropped from 2.7 to 2.3 percent. Subsequently, Kirkland unemployment declined from 2.2 percent to 2.0 percent in December.

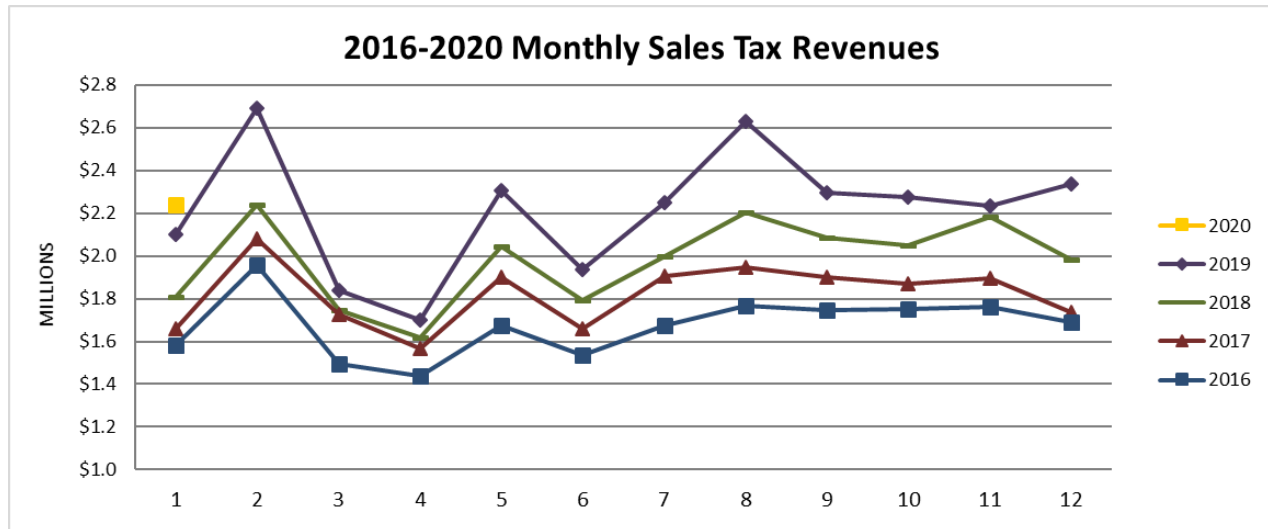
The **New Housing Permits** decreased from 61,500 in November to 56,800 in December. The **Case-Shiller Home Price Index** saw a slight uptick, and remains high at 10.0 points greater than the same point in time last year.

**Inflation** for Seattle-Tacoma-Bellevue, as measured by the CPI-W, rebounded from 1.7 percent in October to 2.0 percent in December. Unlike previous trends, the local CPI-W was lower than the national average in December. Meanwhile on the national level, inflation increased from 2.3 percent in December to 2.5 percent in January.

**New Vehicle Registrations** increased by 500 from December to January.

## Conclusion

The chart below shows Kirkland's monthly sales tax revenues through January 2020 compared to the four prior years.



Contracting is the primary driver in growth, accounting for greater than 100% of the YTD gains (contracting sales tax increased by \$140,539 while total sales tax increased by \$135,229).

Looking at all sectors combined, 2020 year-to-date revenues are **6.4 percent** above those seen at the same time last year.



## CITY OF KIRKLAND

### Department of Finance & Administration

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## MEMORANDUM

**To:** Kurt Triplett, City Manager

**From:** Michael Olson, Director of Finance & Administration  
David Goldman, Deputy Director of Finance & Administration  
Robby Perkins-High, Senior Financial Analyst

**Date:** March 19, 2020

**Subject:** February Sales Tax Revenue

February results reflect sales activity in December, due to the two-month lag in reporting sales tax data. Monthly sales tax revenue is **5.4 percent lower** than February 2019. While the General Merchandise/Retail, Services, and Other Retail Sector sectors showed growth, Miscellaneous and Auto/Gas Retail business decreased. The following sections discuss the highlights by business sector of the month-over-month analysis and year-to-date revenue as well as key economic variables that impact sales tax.

### Comparing February 2020 to February 2019

Comparing collections from the month of February this year and last year provides a better insight into business sector performance, controlling for seasonal cycles in sales, as well as occasional adjustments.

#### 2020 Sales Tax Receipts by Business Sector-Monthly Actuals

Business Sector Group	February		Dollar Change	Percent Change	Percent of Total	
	2019	2020			2019	2020
Services	320,244	360,493	40,249	12.6%	11.9%	14.2%
Contracting	580,207	610,307	30,100	5.2%	21.6%	24.0%
Communications	50,812	57,492	6,680	13.1%	1.9%	2.3%
Retail:						
Auto/Gas Retail	483,904	434,516	(49,388)	-10.2%	18.0%	17.1%
Gen Merch/Misc Retail	300,575	345,937	45,362	15.1%	11.2%	13.6%
Retail Eating/Drinking	154,041	162,531	8,490	5.5%	5.7%	6.4%
Other Retail	313,813	346,328	32,516	10.4%	11.7%	13.6%
Wholesale	102,900	105,648	2,748	2.7%	3.8%	4.2%
Miscellaneous	384,697	122,077	(262,620)	-68.3%	14.3%	4.8%
<b>Total</b>	<b>2,691,192</b>	<b>2,545,329</b>	<b>(145,863)</b>	<b>-5.4%</b>	<b>100%</b>	<b>100%</b>

Comparing month-over-month growth, February sales tax collections this year are **\$145,863 (5.4 percent)** lower than February 2019. **General Merchandise/Retail** had the largest increase, exceeding 2019 revenues by **\$45,362 (15.1 percent)**. Most other sectors showed increases as well, with **Other Retail** going up by **\$32,516 (10.4 percent)**, largely due to bumps in clothing and furniture sales. **Services** was the next biggest contributor with growth of **\$40,249 (12.6 percent)**.

The negative growth in overall sales tax compared to February 2019 can be attributed to the **Miscellaneous** sector, which decreased by **\$262,620 (68.3 percent)**. This is an abnormality, as February 2019 revenues were 235.6% above 2018, driven primarily by an audit where a business had to pay back

taxes. Compared to 2018 revenues of \$114,604, the Miscellaneous sector shows growth of 6.5 percent. **Auto/Gas Retail** was also down, caused by a \$53,499 decrease in revenues from motor vehicle sales.

## Year-to-Date Review

### City of Kirkland Actual Sales Tax Receipts

Business Sector Group	YTD		Dollar Change	Percent Change	Percent of Total	
	2019	2020			2019	2020
Services	593,270	628,254	34,984	5.9%	12.4%	13.1%
Contracting	999,940	1,170,399	170,459	17.0%	20.9%	24.5%
Communications	103,525	95,795	(7,730)	-7.5%	2.2%	2.0%
Retail:						
Auto/Gas Retail	1,006,425	977,671	(28,754)	-2.9%	21.0%	20.4%
Gen Merch/Misc Retail	532,904	568,758	35,854	6.7%	11.1%	11.9%
Retail Eating/Drinking	292,720	309,372	16,653	5.7%	6.1%	6.5%
Other Retail	590,044	623,754	33,710	5.7%	12.3%	13.0%
Wholesale	187,537	186,412	(1,125)	-0.6%	3.9%	3.9%
Miscellaneous	487,948	223,264	(264,685)	-54.2%	10.2%	4.7%
<b>Total</b>	<b>4,794,312</b>	<b>4,783,678</b>	<b>(10,635)</b>	<b>-0.2%</b>	<b>100%</b>	<b>100%</b>

Continuing trends from recent months, **Contracting** continues to exhibit the most growth for the year, showing an increase of **\$170,459 (17 percent)** over 2019 levels. It accounts for close to a quarter of total sales tax revenue in 2020. **General Merchandise/Retail, Services, Retail Eating/Drinking, and Other Retail** show moderate increases in revenues between 5 and 7 percent above the prior year. As previously discussed, the significant decrease in **Miscellaneous** sector is due to a large back tax payment in 2019. **Auto/Gas Retail** is down **\$28,574 (2.9 percent)**, and **Communications** has declined by **\$7,730 (7.5 percent)**.

### Estimated Revenue Impact of Kirkland Urban and The Village at Totem Lake Redevelopment

Since July 2016, Financial Planning has been monitoring revenues from Contracting businesses known to be working on the redevelopment projects at Kirkland Urban and The Village at Totem Lake. Sales tax revenues through December 2019 from these projects, as shown by the following chart, have been a significant component of overall sales tax revenue growth.





From July 2016 to January 2020, the City has receipted close to **\$3.8 million** from companies known to be working on these large redevelopment projects. This represents over 19% of total collections from contracting over that period; however, this should be considered an *approximation* rather than a precise number, as this amount includes all activity from some contractors, even though some of their contributions may be from other locations within Kirkland. It also does not include sales tax from contracting firms that are only small contributors to these locations that are doing other work in Kirkland. The chart above also shows sales tax revenues from new businesses that have opened at The Village at Totem Lake. It is worth noting that for retailers with multiple locations in Kirkland, only a portion of their sales are allocated to the new businesses for the purpose of this chart.

## National and Regional Economic Context

Information about wider trends in the economy provides a mechanism to help understand current results in Kirkland, as well as to predict future performance. The combination of consumer confidence, unemployment levels, housing data, inflation and auto sales provides a broader economic context for key factors in sales tax revenues. The table below includes the most recently available data and prior month's readings, for some of the most relevant indicators.

### 2020 Wider Economic Indicators

Indicator	Most Recent Month of Data	Unit	Month			Yearly Average	
			Current	Previous	Change	2020	2019
Consumer Confidence							
Consumer Confidence Index	February	Index	130.7	130.4	0.3	N/A	128.1
Unemployment Rate							
National	February	%	3.5	3.6	(0.1)	N/A	3.7
Washington State	December	%	4.0	4.0	0.0	N/A	4.5
King County	November	%	2.3	2.7	(0.4)	N/A	3.0
Kirkland	December	%	2.0	2.2	(0.2)	N/A	2.9
Housing							
New House Permits	December	Thousands	56.8	61.5	(4.7)	N/A	48.7
Seattle Area Home Prices	December	Index	254.3	253.8	0.5	N/A	252.2
Inflation (CPI-W)							
National	February	% Change	2.3	2.5	(0.2)	N/A	1.7
Seattle	February	% Change	2.6	2.0	0.6	N/A	2.1
Car Sales							
New Vehicle Registrations	January	Thousands	23.3	22.8	0.5	N/A	23.7

The Conference Board **Consumer Confidence Index** was up in February, increasing to 130.7 from 130.4 in January.

The national **Unemployment Rate** in February dropped slightly to 3.5 percent. Washington State unemployment maintained a level of 4.0 percent from October to December. King County unemployment also dropped from 2.7 to 2.3 percent. Subsequently, Kirkland unemployment declined from 2.2 percent to 2.0 percent in December.

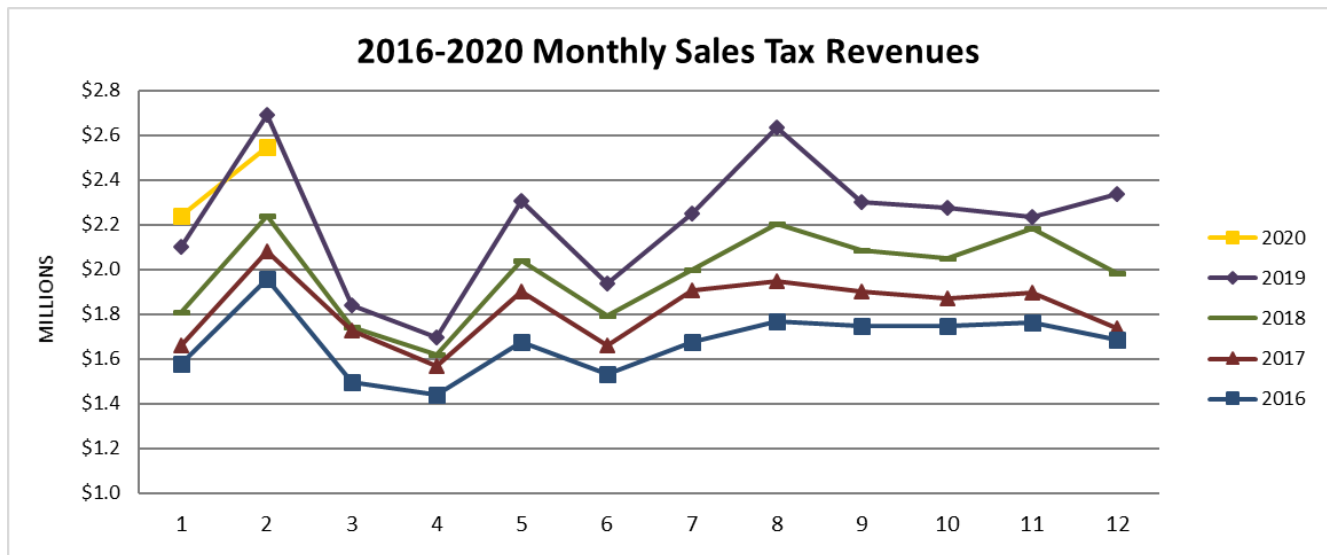
The **New Housing Permits** decreased from 61,500 in November to 56,800 in December. The **Case-Shiller Home Price Index** saw a slight uptick and remains high at 10.0 points greater than the same point in time last year.

**Inflation** for Seattle-Tacoma-Bellevue, as measured by the CPI-W, rose from 2.0 percent to 2.6 percent. Meanwhile on the national level, inflation dropped 0.2 percentage points to 2.3 percent.

**New Vehicle Registrations** increased by 500 from December to January.

## Conclusion

The chart below shows Kirkland's monthly sales tax revenues through February 2020 compared to the four prior years.



Contracting is the primary driver in growth, accounting for greater than 100% of the YTD gains (contracting sales tax increased by \$170,459 while total sales tax has decreased by \$10,635).

Looking at all sectors combined, 2020 year-to-date revenues are **0.2 percent** below those seen at the same time last year. If the miscellaneous sector was removed (controlling for the impact of the large back tax payment in 2019), sales tax revenues are **5.9 percent** above the previous year-to-date.



**CITY OF KIRKLAND**  
**Department of Public Works**  
123 Fifth Avenue, Kirkland, WA 98033 425.587.3800  
[www.kirklandwa.gov](http://www.kirklandwa.gov)

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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Kimberly Scrivner, Transportation Planner  
Joel Pfundt, Transportation Manager  
John Starbard, Deputy Director of Public Works  
Julie Underwood, Interim Director of Public Works

**Date:** March 26, 2020

**Subject:** MUNICIPAL CODE AMENDMENT AND PARKING GARAGE HOURS

**RECOMMENDATION:**

The attached ordinance that would amend *Kirkland Municipal Code* chapter 12.45 concerning parking, prohibited conduct, trespass warnings in the Peter Kirk Municipal Garage is recommended for adoption. The ordinance presumes operating hours for the municipal garage to be 5:00 a.m. to midnight every day.

By taking action on this item under the consent calendar, the City Council is enacting an amendment to the *Municipal Code* and establishing open operating hours for the municipal garage that will take effect when the door improvements are complete and a communication plan has been implemented.

**BACKGROUND DISCUSSION:**

At its March 17, 2020 meeting, the City Council received a presentation concerning parking in downtown Kirkland, City-owned parking facilities in downtown, the changing nature of downtown and parking there, and options for policies and regulations.

With regard to the Peter Kirk Municipal Parking Garage, staff updated the Council about improvements that have been and are being made to the garage, including new technological infrastructure and new vehicular and pedestrian doors. Within a few weeks, it will be possible to close and lock all doors at the garage by timer, remotely, or on-site, which may be the first time the garage will be fully lockable since it was opened about twenty-six years ago.

Over time, because the garage has been wide open all the time, the City has experienced an increasing frequency of activities that are undesired, illegal, dangerous, or all three. Once the garage can be closed and locked, staff will be doing so every day between midnight and 5:00 a.m., meaning the garage would be open for use nineteen hours per day. Staff would use a variety of communication media to make these new hours widely disseminated. Closing and locking the garage regularly is anticipated to greatly facilitate the management, safety, and cleanliness of the garage. Staff is aware that there may be some downtown employees who park in the garage past midnight. Those employees would still have the Wester lot, surrounding surface lots and private garages, or on-street parking as options.

Being able to close and lock the garage means the City will be in a much better position to regulate unwanted behaviors. At the March 17 meeting, staff reviewed a proposed amendment to *Kirkland Municipal Code* chapter 12.45, entitled "Parking," that would do the following:

- Provide a definition of "overnight camping" (12.45.010.6);
- Provide a definition of "dangerous" behavior (12.45.010.15);
- Provide a definition of "illegal" behavior (12.45.010.16);
- Provide a definition of behavior that is "unreasonably disruptive to other users" (12.45.010.17);
- Add a new section concerning Municipal Garage Use—Civil Infractions—Overnight Parking Exception (12.45.400); and
- Add a new section concerning Trespass Warnings (12.45.410) that would:
  - Authorize City police officers to issue trespass warning to persons exhibiting conduct that is "dangerous, illegal, or unreasonably disruptive" (12.45.410.1);
  - Provide for escalating durations for being excluded from the garage, from up to seven days, up to ninety days, or up to one year (12.45.410.4);
  - Provide an appeal process for challenging a trespass warning (12.45.410.6);
  - Provide for the conditions under which a person may be arrested for violation of a trespass warning (12.45.410.14); and
  - Provide for the conditions when an individual who has received a trespass warning may re-enter the garage to exercise constitutionally-protected free speech rights (12.45.410.15).

After its review and discussion, the Council did not have amendments to the proposed ordinance at that time and asked that it be brought forward at a future meeting for action.

Staff also plans to implement the following actions in and for the garage:

- Replacement of damaged and/or outdated signage;
- Posting the following rules and regulations:
  - No Skating, Skateboarding, or Scooters;
  - No Loitering or Soliciting;
  - No Camping;
  - Vehicles that remain in the garage after closure can either: a) wait until the garage is reopened the following morning and are subject to the 4-hour parking limit (meaning if the garage opens at 5:00 a.m. then the vehicle would need to leave by 9:00 a.m.); or b) pay an "after hours fee" to the company monitoring the garage and the company would release the vehicle;

- All City public nuisance laws, traffic laws, and parking regulations apply (KMC 11.24, KCM 12.12 and KMC 12.45);
- 4-hour public parking on the middle level; and
- The lower level will remain permit-only from 5:00 a.m. to 5:00 p.m., except for weekends and holidays.

Finally, since late 2018, the City has contracted with Diamond Parking Services to monitor the garage five times per day every day. Practically, though, it has been a challenge to manage the garage to the City's preferred service level when the garage has been open to cars and people every hour of the day and night. The City's contract has the option for the City to increase on-site management services so that there would be a Diamond staff person on-site every day between 4:00 p.m. and midnight for monitoring and customer service (e.g. providing directions to exits or key downtown locations). Between 5:00 a.m. and 4:00p.m. there would continue to be walk-through monitoring several times per day. Staff plans to exercise that option shortly after the garage can be closed and locked.

### **ITEMS FOR FUTURE DISCUSSION:**

Also on March 17, staff presented ideas and information about charging for parking at the municipal garage, which now is free, and possibilities about parking rates at other City-owned parking facilities and on-street parking. It was also noted that the downtown employees parking program is free.

At Council's direction, staff is not proposing any change to established parking rates or programs through this agenda item. While the Council had received similar recommendations and has had similar discussions in the past, the Council concluded on March 17 that 2020 was not the time to evaluate new parking fees during the COVID-19 pandemic and the outbreak's impact on downtown businesses. In fact, in response to COVID-19 events the City Manager, on Wednesday morning, March 18, directed staff suspend parking fees and do the following:

- Power-down all City-managed parking pay stations;
- Suspend PayByPhone service in city-owned lots until further notice;
- Post signs to say "free parking until further notice;"

In addition, the Police Department has suspended downtown parking enforcement related to payment, parking exceeding time limits, and failure to display a downtown employees parking decal in the municipal garage and the Wester lot until further notice. Parking Enforcement is still enforcing public safety infractions such as illegal parking in handicapped spaces and parking near fire hydrants or blocking driveways, mailboxes and so on. These temporary enforcement suspensions will end when the City's emergency declaration is lifted.

Staff anticipates returning to the discussion of these ideas as part of the 2021-2022 budget review, though at this time staff doesn't foresee that any of these ideas would be pursued until there is a better understanding about regional employment and economic recovery.

Attachment A: Proposed Ordinance Related to Parking, Prohibited Conduct, Trespass, and the Peter Kirk Municipal Garage

Attachment B: Publication Summary of Proposed Ordinance

## ORDINANCE O-4718

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO PARKING, PROHIBITED CONDUCT, TRESPASS WARNINGS AND THE PETER KIRK MUNICIPAL GARAGE.

1 WHEREAS, the Peter Kirk Municipal Garage ("Municipal  
2 Garage" or "garage") is owned and operated by the City of  
3 Kirkland ("City") and is located at the southwest corner of Peter  
4 Kirk Park on the corner of Third Street and Kirkland Avenue in  
5 downtown Kirkland; and  
6

7 WHEREAS, the top, above-ground floor of the Municipal  
8 Garage is used by the Kirkland Branch of the King County Library  
9 System; the middle floor of the garage is available to downtown  
10 shoppers, library employees and patrons, and park and pool users  
11 with a four-hour parking limit; and the lower level is used by  
12 permitted downtown employees until five p.m. Monday through  
13 Friday and is available for public use with a five-hour parking limit  
14 at all other times; and  
15

16 WHEREAS, pursuant to an Interlocal Agreement ("ILA")  
17 between the City and the King County Rural Library District dated  
18 March 13, 1990, as amended, the City provides the Kirkland  
19 Library with Municipal Garage parking spaces located on the  
20 surface level and the ramp to the level below for the use of library  
21 patrons and also parking on the lower parking levels for library  
22 personnel and patrons in addition to the general public; and  
23

24 WHEREAS, the City is responsible pursuant to such ILA to  
25 enforce time restrictions governing the use of the garage in  
26 accordance with a parking management program for the garage;  
27 and  
28

29 WHEREAS, the Municipal Garage is in "Zone B" of the public  
30 works department's "Parking Guidelines for Downtown Kirkland";  
31 and  
32

33 WHEREAS, "Zone B" is intended to serve a balanced mix of  
34 long-term and short-term parking needs with the upper level of  
35 the Municipal Garage, which is intended to serve patron demand  
36 for stays of less than four hours; and the lower level of the garage  
37 is intended to serve library and downtown employee parking  
38 during the main workday (i.e., five a.m. to five p.m.); and  
39

40 WHEREAS, over time an increasing number of regulatory  
41 concerns related to the public health, welfare and safety have  
42 arisen at the Municipal Garage, including criminal acts such as  
43 assault and vandalism; the unlawful use of drugs and alcohol;  
44 overnight camping; loitering and other non-garage uses (e.g.  
45 spray painting a car), the intimidation of public garage users, and  
46 increased staff and maintenance costs associated with these  
47 concerns; and

WHEREAS, it is essential for members of the public, including downtown workers, library employees and patrons, to feel safe in the garage environment; and

WHEREAS, it is necessary to adopt new regulations related to the Municipal Garage in order to protect the public health, safety and welfare pursuant to Article XI, Section 11 of the Washington Constitution; and

WHEREAS, a purpose of this ordinance is to regulate hours of use of the Municipal Garage and to provide for a legally sound process for enabling the City to exclude from the garage those individuals whose behavior is dangerous, unsafe, illegal, or unreasonably disruptive to other users; and

WHEREAS, a further purpose of this ordinance to provide for a specific method to generally allow for the issuance of trespass warnings to such individuals, including placing limitations on trespass warnings and providing procedures for such individuals to promptly appeal the issuance of trespass warnings.

NOW, THEREFORE, the City Council of the City of Kirkland do ordain as follows:

Section 1. Kirkland Municipal Code 12.45.010 is amended to read as follows:

#### **12.45.010 Definitions.**

For the purpose of this chapter:

- (1) "Central business district" means the combination of areas which the city of Kirkland Zoning Code designates as CBD-1A, CBD-1B, CBD-2, CBD-3 or CBD-8.
- (2) "Central business district employee" means: (A) a person who is engaged for wages, credit or other consideration, or as a volunteer, for a business or nonprofit entity within the central business district, including temporary workers, contractors, and consultants; or (B) an employer of persons who work at a location within the central business district; or (C) a principal/owner of a business premises within the central business district.
- (3) "Employee-restricted parking areas" shall mean all parking spaces within the Lake and Central parking lot or the Marina Park parking lot that are not municipal permit parking spaces and any stall not marked "permit parking" in the Peter Kirk Municipal Garage parking garage located at the corner of Kirkland Avenue and Third Street.
- (4) "Municipal permit or garage parking" is parking or standing of motor vehicles on property owned, leased or operated by the city requiring the obtaining of permits, depositing of money or use of a credit or other payment card, or compliance with

- 100 pavement designations for the privilege to park at that  
 101 location and is subject to restrictions as enacted by the city.
- 102 (5) "Operator" means every person who is in actual physical  
 103 control of a vehicle as herein defined, upon a public street or  
 104 highway of the city.
- 105 (6) "Overnight camping" means remaining in the garage at any  
 106 time during the hours from midnight to five a.m. the following  
 107 day, whether in a vehicle or otherwise.
- 108 (76) "Overnight parking" means the parking of a vehicle in  
 109 one spot continuously for a period exceeding six hours at any time  
 110 during the hours from ~~ten p.m.~~ midnight of the day designated to  
 111 five a.m. of the following day.
- 112
- 113 (87) "Parking payment device" means any device used to aid  
 114 in management and control of the parking of vehicles on city  
 115 streets or other rights-of-way, including pay stations.
- 116
- 117 (98) "Parking pay station" means any electronic device  
 118 placed or erected adjacent to a parking space which, after deposit  
 119 of money or use of a credit or other payment card, dispenses a  
 120 proof of payment receipt to be displayed on the vehicle.
- 121
- 122 (10) "Peter Kirk Municipal Garage" means the municipal  
 123 garage owned by the city and located at the northeast corner of  
 124 Third Street and Kirkland Avenue.
- 125
- 126 (119) "Performing their ~~his or her~~ duties" means being  
 127 present at a place of the person's employment anytime between  
 128 the hours of nine-a.m. and nine p.m.
- 129
- 130 (1210) "Person" means every natural person, firm,  
 131 partnership, corporation, association or organization.
- 132
- 133 (1311) "Street" or "public street" includes all public ways,  
 134 streets, highways and off-street parking facilities owned or  
 135 maintained by the city.
- 136
- 137 (1412) "Vehicle" means every device capable of being  
 138 moved upon a public highway and in, upon, or by which any  
 139 person, or property, shall or may be transported or drawn upon  
 140 any public highway excepting devices moved by human power.  
 141 There is a prima facie presumption that the registered owner of a  
 142 violator vehicle was the person who parked such vehicle.
- 143
- 144 (15) Behavior that is "dangerous" is behavior that creates an  
 145 imminent and unreasonable risk of injury or harm to either  
 146 persons or property of another or the actor.
- 147
- 148 (16) Behavior that is "illegal" is behavior that is prohibited by  
 149 federal, state or city laws or regulations including, but not limited  
 150 to, any of the following types of behavior:
- 151



- 152 (a) Threatening another person by communicating either directly
- 153 or indirectly to another person the intent to cause bodily injury
- 154 in the future to the person threatened or to any other person;
- 155 or
- 156 (b) Selling or using alcohol, marijuana or drugs; or
- 157 (c) Threatening or harassing behavior (e.g., fighting or threatening
- 158 to fight, brandishing a weapon, stalking, verbally threatening to
- 159 harm others or their property); or
- 160 (d) Assault; or
- 161 (e) Sexual misconduct or harassment (e.g., indecent exposure,
- 162 offensive touching, sexual acts).

163 (17) Behavior that is "unreasonably disruptive to other users"

164 is behavior that is not constitutionally protected and that, in

165 consideration of the nature, scope, use and purpose of the parking

166 garage, unreasonably interferes with others' use and enjoyment

167 of such garage. Examples of behavior that may unreasonably

168 interfere with others' use and enjoyment of the garage include,

169 but are not limited to, any of the following:

- 171 (a) Use of unreasonably hostile or aggressive language or
- 172 gestures; or
- 173 (b) Unreasonably loud vocal expression or unreasonably
- 174 boisterous physical behavior; or
- 175 (c) Using electronic or other communication devices in a
- 176 manner that is unreasonably disruptive to others; or
- 177 (d) Unreasonably interfering with the free passage of staff or
- 178 patrons in or on the garage property; or
- 179 (e) Behavior that is unreasonably inconsistent with the normal
- 180 use for which the garage was designed and intended to be used
- 181 (e.g., overnight camping), provided, however, that individuals
- 182 experiencing homelessness will be directed to available shelter
- 183 beds or a different location within Kirkland where overnight
- 184 camping is allowed.

185

186 Section 2. Kirkland Municipal Code Section 12.45.020 is

187 amended to read as follows:

188

189 **12.45.020 Parking restrictions—Designation.**

190 The chief of police or delegate or, the director of public works or

191 delegate, or the traffic engineer may from time to time designate

192 portions of streets of the city and property of the city as prohibited

193 parking areas, restricted parking zones, municipal permit or

194 garage parking, and/or parking payment device spaces. Such

195 designation shall be shown by signage or other appropriate

196 indicators. The same procedure may be followed in altering or

197 abandoning a designation relating to parking.

198

199 Section 3. A new Section 12.45.400 of the Kirkland

200 Municipal Code is added to read as follows:

201

202 **Part V. Peter Kirk Municipal Garage**

203 **12.45.400 Municipal garage use – Civil infractions.**

204 The Peter Kirk Municipal Garage is reserved for use as follows:

(1) The surface parking lot above the parking garage and the ramp to the level below is reserved for use by library patrons during the library's posted hours of operation Monday through Sunday, excluding library holidays.

(2) Garage parking below the surface parking lot and the ramp to the level below is reserved for members of the public, including library patrons, Monday through Sunday, and between the hours of five a.m. and midnight limited to four hours. Central business district employees with valid city parking permits may park on the lower level and the ramp to the lower level between the hours of five a.m. and five p.m. Monday through Friday. Permitted areas are available to the general public on weekends and holidays. Parking shall be in designated areas.

(3) Garage parking at times not allowed by this section is prohibited and constitutes a civil infraction in accordance with KMC Section 12.45.030; provided, however, that overnight parking shall not constitute a civil infraction. This penalty is in addition to any other penalties imposed for the underlying infraction.

Section 4. A new Section 12.45.410 of the Kirkland Municipal Code is added to read as follows:

**12.45.410 Trespass warnings.**

Trespass warnings at the parking garage, including its surface lot.

(1) City police officers are authorized to issue a trespass warning to any individual who the officer has probable cause to believe has violated any city ordinance, state statute, or government rule or regulation, relating to or prohibiting conduct that is dangerous, illegal, or unreasonably disruptive to other users of the parking garage, as defined in this chapter, while such individual is on or within such garage.

(2) Trespass warnings may be delivered in person to the individual or by first class mail to the individual at the individual's last known address.

(3) The individual need not be charged, tried, or convicted of any crime or infraction in order for the trespass warning to be issued or be effective. The warning may be based upon observation by a police officer or a city employee or may be based upon a civilian report that would ordinarily be relied upon by police officers in the determination of probable cause.

(4) If the individual:

(a) Has not been excluded from the parking garage by a trespass warning issued within one year prior to the violation, then the warning may exclude the individual from the garage for a period not exceeding seven days from the date of the warning.

(b) Has been the subject of only one prior trespass warning related to the garage issued within one year prior to the current

violation, then the warning may exclude the individual from the garage for a period of not more than 90 days from the date of the current warning.

(c) Has been the subject of two or more prior trespass warnings related to the garage and issued within one year prior to the current violation, then the warning may exclude the individual from the garage for a period of not more than one year from the date of the current warning.

(5) The parking garage trespass warning shall be in writing, shall contain the date of issuance, shall describe the behavior that is the basis for the trespass warning, shall specify the length and place of exclusion, shall be signed by the issuing police officer, and shall state the consequences for failure to comply. A trespass warning hereunder shall not prohibit access to another city property or place that is unrelated to the garage.

(6) For good cause, the city manager, or designee may rescind, shorten or modify a trespass warning issued. A written request for review of a trespass warning must be delivered to the city clerk no later than two business days after it is issued.

(a) The city manager or designee will, within three business days of receipt of a request for review of any parking garage trespass warning that excludes the alleged individual for seven or fewer days, review the decision;

(b) The city manager or designee will, within five business days of receipt of a request for review of any trespass warning that excludes the alleged individual for more than seven days, review the decision;

(c) The city clerk will notify the alleged individual of the date, time, and place or telephone number at which the review will be conducted;

(d) The review decision shall be communicated no later than two business days following the review;

(e) As a follow-up to verbal communication, specify how a written decision will be served on the alleged individual; and

(f) At the end of every written decision, inform the alleged individual that such individual has the right to seek judicial review of the decision and that the timeframe for seeking judicial review runs from the date of service of the written decision.

(7) For purposes of this section, "good cause" to rescind, shorten or modify a parking garage trespass warning shall be found where:

(a) The alleged individual demonstrates by a preponderance of the evidence that such individual's conduct was intended to be expressive conduct protected by the federal or state Constitutions; or

(b) The individual would not have known and was not given prior warning that the conduct in question was subject to a trespass warning; or

(c) The trespass warning was based solely upon the statement of a third party, was not observed personally by the issuing officer or a city or other government employee, would not ordinarily be

313 relied upon by police officers in the determination of probable  
314 cause, and the alleged individual claims that such individual did  
315 not commit the action for which such individual was warned; or

316 (d) In the judgment of the city manager or designee, the  
317 circumstances warrant a modification or rescission of the trespass  
318 warning. The city manager or designee shall rescind the trespass  
319 warning if, considering all the circumstances, the city manager or  
320 designee finds that reasonable minds could differ on the question  
321 of whether the conduct in question was unreasonably disruptive  
322 to others at the garage at that time. The review by the city  
323 manager or designee shall constitute the only city review available  
324 for a trespass warning.

325  
326 (8) At the review hearing, the violation must be proved by a  
327 preponderance of the evidence in order to uphold the parking  
328 garage trespass warning. The city manager or designee shall  
329 consider a sworn report or declaration from the officer who issued  
330 the trespass warning or upon whose observation the trespass  
331 warning was based, without further evidentiary foundation, as  
332 prima facie evidence that the individual committed the violation  
333 as described. The city manager or designee may consider  
334 information that would not be admissible under the evidence rules  
335 in a court of law but that the city manager or designee considers  
336 relevant and trustworthy. If the warning was issued because of  
337 the alleged violation of any criminal law, the individual need not  
338 be charged, tried, or convicted for the warning to be upheld.

339  
340 (9) If the city manager or designee rescinds an exclusion, for  
341 good cause or because the violation was not proved, the exclusion  
342 shall not be considered a prior trespass warning for purposes of  
343 subsection (4) of this section.

344  
345 (10) The decision of the city manager or designee will be the  
346 city's final decision. An individual seeking judicial review of the  
347 city's final decision must file an application for a writ of review in  
348 King County superior court within 15 days of receipt of the city's  
349 final decision.

350  
351 (11) The trespass warning shall remain in effect during the  
352 pendency of any administrative or judicial proceeding.

353  
354 (12) No determination of facts made by the city manager or  
355 designee shall have any collateral estoppel effect on a subsequent  
356 criminal prosecution or civil proceeding and shall not preclude  
357 litigation of those same facts in a subsequent criminal prosecution  
358 or civil proceeding.

359  
360 (13) This section shall be enforced so as to emphasize  
361 voluntary compliance with laws and garage rules and so that  
362 inadvertent minor violations of this section can be corrected  
363 without resort to a trespass warning.

364  
365 (14) Any person who is found on the parking garage premises  
366 in violation of a trespass warning issued in accordance with this

chapter for a period longer than seven days and who accordingly has had the right to a hearing regarding the trespass warning, may be arrested for trespassing, except as otherwise provided in subsection (15) of this section and provided, however, that nothing herein contained shall prevent an individual from being removed if necessary for overnight camping or attempting to remain in the garage after hours as provided for herein.

(15) The chief of police or designee may upon request authorize an individual who has received a trespass warning in accordance with this chapter to enter the garage to exercise such constitutionally protected free speech rights if there is no other reasonable alternative location to exercise such rights. Such authorization must be in writing and specify the duration of the authorization and any conditions thereof. The chief of police or designee shall issue a decision on a request for parking garage entry by the recipient of a trespass warning during a period of exclusion no later than 48 hours after receipt of the request.

(16) Any constitutionally protected action or speech is excluded from the prohibited behavior listed in this section.

(17) Nothing in this section limits the ability of the city to concurrently enforce any other city ordinance, state statute, or government rule or regulation relating to or prohibiting conduct that is dangerous, illegal, or unreasonably disruptive to other users of the parking garage, and the trespass warnings process set forth in this section does not apply in circumstances where an individual has refused to leave the parking garage after hours, except as specifically otherwise provided for herein.

Section 5. If any provision of this ordinance or its application to any person or circumstance is held invalid, the remainder of the ordinance or the application of the provision to other persons or circumstances is not affected.

Section 6. This ordinance shall be in force and effect five days from and after its passage by the Kirkland City Council and publication pursuant to Kirkland Municipal Code 1.08.017 in the summary form attached to the original of this ordinance and by this reference approved by the City Council.

Passed by majority vote of the Kirkland City Council in open meeting this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

Signed in authentication thereof this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

\_\_\_\_\_  
Penny Sweet, Mayor

Attest:

\_\_\_\_\_  
Kathi Anderson, City Clerk

Approved as to Form:

\_\_\_\_\_  
Kevin Raymond, City Attorney

PUBLICATION SUMMARY  
OF ORDINANCE NO. 4718

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO PARKING, PROHIBITED CONDUCT, TRESPASS WARNINGS AND THE PETER KIRK MUNICIPAL GARAGE.

SECTION 1. Amends Section 12.45.010 of the Kirkland Municipal Code related to parking definitions.

SECTION 2. Amends Section 12.45.020 related to parking restrictions and designations.

SECTION 3. Adds a new Section 12.45.400 related to use of the Peter Kirk Municipal Garage.

SECTION 4. Adds a new Section 12.45.410 related to trespass warnings in the Peter Kirk Municipal Garage.

SECTION 5. Provides a severability clause for the ordinance.

SECTION 6. Authorizes publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as five days after publication of summary.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the \_\_\_\_\_ day of \_\_\_\_\_, 2020.

I certify that the foregoing is a summary of Ordinance \_\_\_\_\_ approved by the Kirkland City Council for summary publication.

\_\_\_\_\_  
Kathi Anderson, City Clerk

**CITY OF KIRKLAND****Planning and Building****123 Fifth Avenue, Kirkland, WA 98033****425.587-3225 - [www.kirklandwa.gov](http://www.kirklandwa.gov)**

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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Adam Weinstein, Director of Planning & Building  
Tracey Dunlap, Deputy City Manager  
Julie Underwood, Interim Director of Public Works

**Date:** March 23, 2020

**Subject:** ANNUAL SCHOOL IMPACT FEE REPORT

**RECOMMENDATION**

Accept report on school impact fees as required by RCW 82.02.070. By taking action on this item through the approval of the consent calendar, the report is accepted.

**BACKGROUND DISCUSSION**

In April 2011, the City of Kirkland and the Lake Washington School District (LWSD) entered into an interlocal agreement whereby the City began collecting school impact fees from new development upon the completion of the June 2011 annexation. The agreement provides that LWSD will "prepare an annual report in accordance with the requirements of RCW 82.02.070 showing the system improvements that were financed in whole or in part by impact fees, and the amount of funds expensed. The annual report shall be sent to the City on or before April 1 of each year for the preceding calendar year. Copies of the annual report shall also be submitted to the City Council." This action is consistent with the requirement of RCW 82.02.070 that "Annually, each county, city, or town imposing impact fees shall provide a report on each impact fee account showing the source and amount of all monies collected, earned, or received and system improvements there were financed in whole or in part by impact fees." This memorandum provides the required information for the period of January 1, 2019 through December 31, 2019.

There are two attachments to this memorandum:

- Attachment A – Letter from LWSD summarizing the system improvements financed and the total funds received and related interest for 2019.
- Attachment B – Monthly reports showing the source and amount of all monies collected by the City in 2019, which corresponds to the amounts reported by LWSD. The detailed data tracked by the Public Works Department reflects the month the City collected the impact fees, which are then remitted to LWSD the following month. The revenue figures in the LWSD letter reports the amounts in



the month received by LWSD.

Attachments:

- A. LWSD Letter
- B. Monthly Reports



Support Service Center  
15212 NE 95<sup>TH</sup> Street • Redmond, WA 98062  
Office: (425) 936-1100 • Fax: (425) 936-1146  
[www.lwsd.org](http://www.lwsd.org)

February 28, 2020

Teri Woolley  
Public Works Department  
City of Kirkland  
123 5<sup>th</sup> Avenue  
Kirkland, WA 98033

RE: 2019 IMPACT FEE FINANCIAL REPORT

Dear Ms. Woolley:

The following is Lake Washington School District's annual impact fee report for 2019.

In fulfillment of the interlocal agreement between Lake Washington School District and the City of Kirkland regarding expenditure of impact fees (RCW 82.02.070), I hereby report that Lake Washington School District expended a total of \$3,127,237.33 for calendar year 2019.

Impact Fees collected by the City of Kirkland and transferred to Lake Washington School District totaled \$1,743,974.00 for calendar year 2019. Interest recorded was \$32,817.13 for calendar year 2019.

Calendar year 2019 summary of expenditures for source 6060 / City of Kirkland impact fees:

<u>Project Number / Name</u>	<u>Expenditures for the year</u>
0960 / Peter Kirk Elementary Rebuild	\$3,127,237.33

If you have any questions, please feel free to contact me at (425) 936-1479; email: [jlove@lwsd.org](mailto:jlove@lwsd.org)

Sincerely,

John Love  
Capital Fund Analyst

cc: Brian Buck, Director of Support Services, LWSD



**2019 Summary of Monthly School Impact Fees Received**  
**January 1, 2019 - December 31, 2019**

<b>MONTH</b>	<b>MONTHLY RECEIPT</b>	
December-18	223,417	
January-19	40,260	
February-19	52,214	
March-19	107,926	
April-19	74,603	
May-19	253,748	
June-19	189,254	
July-19	193,644	
August-19	136,806	
September-19	96,312	
October-19	265,484	
November-19	110,306	<b>1,743,974 Total remitted to LWSD in 2019</b>

**Lake Washington School District #414  
Attn: Accounting Department  
16250 NE 74th St.  
P. O. Box 97039  
Redmond, WA 98073**

## 04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees

CK \$

**SCHOOL IMPACT FEES COLLECTED**  
**2018 December (Addendum)**

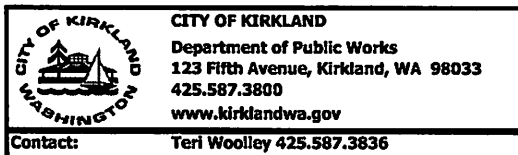
**2016 = \$9,715 / \$816 MTF**

IFAS	\$	7,005.00
CK	\$	-



**ORDINANCE 4285    Effective 06/01/11**  
**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

CK \$ -



**ORDINANCE 4285    Effective 06/01/11**  
**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

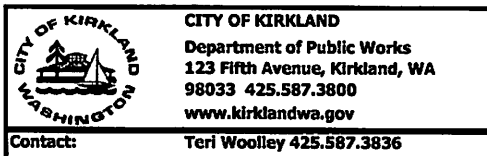
MUNIS	\$	52,214.00
	CK \$	-






**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

	\$	107,926.00
CK	\$	-



**ORDINANCE 4285    Effective 06/01/11**  
**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

[illegible]

	<p><b>CITY OF KIRKLAND</b>  <b>Department of Public Works</b>          123 Fifth Avenue, Kirkland, WA 98033          425.587.3800  <a href="http://www.kirklandwa.gov">www.kirklandwa.gov</a></p>
<p><b>Contact:</b></p>	<p><b>Teri Woolley 425.587.3836</b></p>

**IFAS**


	\$	74,603.00
CK	\$	-

**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

CK \$ -

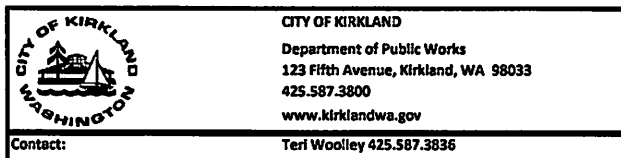


## 04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees

	<b>CITY OF KIRKLAND</b> <b>Department of Public Works</b> <b>123 Fifth Avenue, Kirkland, WA 98033</b> <b>425.587.3800</b> <b><a href="http://www.kirklandwa.gov">www.kirklandwa.gov</a></b>
	<b>Contact: Teri Woolley 425.587.3836</b>

**ORDINANCE 4285      Effective 06/01/11**  
**04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees**

munis	\$	193,644.00
	CK \$	-



**SCHOOL IMPACT FEES COLLECTED**  
**2019 August**

[illegible]

\$ 136,806.00

**CITY OF KIRKLAND**  
**Department of Public Works**  
**123 Fifth Avenue, Kirkland, WA 98033**  
**425.587.3800**  
**[www.kirklandwa.gov](http://www.kirklandwa.gov)**

**Contact:** Teri Woolley 425.587.3836



Remit to: Lake Washington School District #414  
 Attn: Accounting Department  
 16250 NE 74th St.  
 P. O. Box 97039  
 Redmond, WA 98073

**SCHOOL IMPACT FEES COLLECTED**  
**2019 October**

**ORDINANCE 4285 Effective 06/01/11**

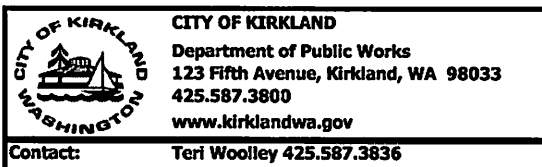
04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees

COK SCHOOL IMPACT		DATE	% of Fee	SF - \$12294	MF - \$624	Admin \$65
CASE NUMBER	SITE ADDRESS	TAX PARCEL	APPLICANT'S NAME	DATE PAID	RECEIPT #	AMOUNT PAID
BSF18-01145	12122 78TH CT NE #A	6076500421	N/A - REFUND	10/21/19	TRC-003159-10-21-2019	\$ (1,466.00)
BMU18-08975	11903 NE 128TH ST	6928400026	TL 128TH LLC	10/17/19	TRC-003141-10-17-2019	\$ 84,240.00
BSF18-01946	13025 85TH AVE NE	3026059420	PNW CONSTRUCTION & DESIGN LLC - REFUND	10/08/19	TRC-003061-10-08-2019	\$ (11,954.00)
BSF18-02876	11109 NE 68TH ST	1692400085	TUSCANY CONSTRUCTION	10/25/19	TRC-003198-10-25-2019	\$ 11,954.00
BSF18-04578	11113 NE 68TH ST	1692400085	TUSCANY CONSTRUCTION	10/25/19	TRC-003198-10-25-2019	\$ 11,954.00
BSF18-06090	12631 80TH AVE NE	3840700662	SCHILTZ, MICHAEL	10/24/19	TRC-003192-10-24-2019	\$ 11,954.00
BSF18-09059	13205 111TH AVE NE	2026059197	SSHI LLC	10/11/19	TRC-003095-10-11-2019	\$ 11,954.00
BSF18-09062	13209 111TH AVE NE	2026059196	SSHI LLC	10/01/19	TRC-002296-10-01-2019	\$ 11,954.00
BSF18-09063	13213 111TH AVE NE	2026059199	SSHI LLC	10/02/19	TRC-003019-10-02-2019	\$ 11,954.00
BSF19-03760	8625 NE 134TH PL	1926059256	SSHI LLC	10/07/19	TRC-003053-10-07-2019	\$ 12,294.00
BSF19-04652	8219 NE 126TH DR	3840700526	THE QUADRANT CORPORATION	10/15/19	TRC-003123-10-15-2019	\$ 12,294.00
BSF19-04748	8622 NE 134TH PL	1926059254	SSHI LLC DBA DR HORTON	10/08/19	TRC-003066-10-08-2019	\$ 12,294.00
BSF19-04749	8626 NE 134TH PL	1926059253	SSHI LLC DBA DR HORTON	10/14/19	TRC-003116-10-14-2019	\$ 12,294.00
BSF19-04963	109 6TH ST S	7882600072	BHATTI, MUHAMMAD & AUJUM	10/03/19	TRC-003031-10-03-2019	\$ 12,294.00
BSF19-05294	7208 NE 127TH ST	4055700819	WILLIAM E BUCHAN INC	10/03/19	TRC-003034-10-03-2019	\$ 12,294.00
BSF19-05369	7902 NE 124TH ST	3840700690	RICK BURNSTEAD CONSTRUCTION LLC	10/30/19	TRC-003224-10-30-2019	\$ 12,294.00
BSF19-06059	1827 4TH ST	1245000806	BAKER, PAUL & EVELYN	10/23/19	TRC-00318610-23-2019	\$ 12,294.00
BSF19-06103	7910 NE 124TH ST	3840700692	RICK BURNSTEAD CONSTRUCTION LLC	10/24/19	TRC-003192-10-24-2019	\$ 12,294.00
BSF19-06222	12330 NE 73RD	6400700158	RUYBAL, DOMINIQUE	10/18/19	TRC-003146-10-18-2019	\$ 12,294.00
						\$ 265,484.00

IFAS

\$ 265,484.00

CK \$





#### 04/04/11 Interlocal Agreement for the Collection, Distribution, and Expenditure of School Impact Fees

	\$	110,306.00
CK	\$	.



2019 MUNIS SCHOOL IMPACT FEES				DECEMBER 2018 THROUGH NOVEMBER 2019				(CHECKS ISSUED ONE MONTH FOLLOWING RECEIPTS)		
ORG	OBJECT	YEAR	PER	JOURNAL	EFF DATE	REF1	DEBIT	CHECK NO	VDR NAME/ITEM DESC	COMMENTS
650	run for	2019	12	230	12/11/2019	001555	110,306.00	709795	LAKE WA SCHOOL DISTRICT	19-11 SCHOOL IMPACT FEES
650	229112	2019	11	302	11/13/2019	001555	265,484.00	709291	LAKE WA SCHOOL DISTRICT	1910 SCHOOL IMPACT FEE
650	229112	2019	10	596	10/16/2019	001555	96,312.00	708709	LAKE WA SCHOOL DISTRICT	1909 SCHOOL IMPACT FEES
650	229112	2019	9	241	09/11/2019	001555	136,806.00	708062	LAKE WA SCHOOL DISTRICT	1908 SCHOOL IMPACT
650	229112	2019	8	493	08/14/2019	001555	193,644.00	707579	LAKE WA SCHOOL DISTRICT	07-19 SCHOOL IMPACT FEES
650	229112	2019	7	802	07/24/2019	001555	189,254.00	707070	LAKE WA SCHOOL DISTRICT	1906 SCHOOL IMPACT FEE
650	229112	2019	6	300	06/12/2019	001555	253,748.00	706224	LAKE WA SCHOOL DISTRICT	2019-05 SCHOOL IMPACT FEES
650	229112	2019	5	720	05/15/2019	001555	74,603.00	705706	LAKE WA SCHOOL DISTRICT	APRIL 2019 SCHOOL IMPACT FEES
650	229112	2019	4	797	04/24/2019	001555	107,926.00	705231	LAKE WA SCHOOL DISTRICT	3Q19 SCHOOL IMPACT FEES
650	229112	2019	3	824	03/27/2019	001555	52,214.00	704641	LAKE WA SCHOOL DISTRICT	19-02 SCHOOL IMPACT FEES
650	229112	2019	2	490	02/21/2019	001555	40,260.00	703983	LAKE WA SCHOOL DISTRICT	1901 SCHOOL IMPACT FEES
650	229112	2018	12	1,608	12/31/2018		7,005.00	704215	LAKE WA SCHOOL DISTRICT	2018-CORRECT SCHOOL IMPACT FEE
650	229112	2018	12	1,127	12/31/2018		216,412.00	703265	LAKE WA SCHOOL DISTRICT	2018-12 SCHOOL IMPACT FEES
							1,743,974.00			



**CITY OF KIRKLAND**  
**Human Resources Department**  
123 5<sup>th</sup> Avenue, Kirkland, WA 98033 425-587-3210  
[www.kirklandwa.gov](http://www.kirklandwa.gov)

---

## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Tracey Dunlap, Deputy City Manager/Interim Director of Human Resources  
Michael Doucette, Sr. Human Resources Analyst

**Date:** March 24, 2020

**Subject:** Ratification of 2020-2022 Police Guild Commissioned Collective Bargaining Agreement

### **RECOMMENDATION**

That the Council adopts the 2020-2022 Collective Bargaining Agreement between the City Kirkland and the Kirkland Police Guild Commissioned Staff.

By accepting this memo during approval of the consent calendar, the Council is approving the Agreement.

### **BACKGROUND DISCUSSION**

The Kirkland Police Guild represents approximately 100 Patrol Officers, Corporals and Sergeants performing work that is vital to the Kirkland community.

On March 20, 2020, the City of Kirkland was advised that members of Kirkland Police Guild Commissioned Staff approved the proposed 2020-2022 Collective Bargaining Agreement.

Some highlights of the agreement are:

- Three-year agreement (January 1, 2020-December 31, 2022)
- Percentage-based wage increases:
  - 2020 – 3.0%
  - 2021 – 3.0%
  - 2022 – 2.5%
- Market Adjustments:
  - 2020 – 3.09%
  - 2021 – 1.65%
  - 2022 – 1.64%
- January 1, 2020 – A 4% one-time market adjustment for Sergeants
- A 2% premium for Community Service Unit Officers
- Increase in education incentives
  - 1% for Associate of Arts
  - 0.5% for Bachelors
- Article 3 New dues deduction language added based on the Janus decision

- Article 4.4 New employee union orientation time added based on Janus decision
- Article 6.2 Clarification of the shift bidding process
- Article 6.7 Procedure for leave approval on New Years and July 4<sup>th</sup>.
- Article 15 – Retiree medical
- Appendix E - Salary Tables

Members of the Negotiation Teams should be commended for this collaborative negotiation process.

Staff is pleased to recommend to City Council the ratification and adoption of this Agreement (or a substantially similar version if minor corrections become necessary) with the Kirkland Police Guild.

*Attachment: City of Kirkland and 2020-2023 Police Guild Commissioned Staff Collective Bargaining Agreement, Appendices (Legislative and Clean versions)*

# **2020 – 2022 Agreement**

**By and Between**



**CITY OF KIRKLAND**

**and**

**KIRKLAND POLICE GUILD  
COMMISSIONED STAFF**



**2020 – 2022  
Agreement  
By and Between  
City of Kirkland  
and  
Kirkland Police Guild  
Commissioned Staff**

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**2020 – 2022  
Agreement  
By and Between  
City of Kirkland  
and  
Kirkland Police Guild  
Commissioned Staff**

**PREAMBLE**

THIS AGREEMENT is made by and between the CITY OF KIRKLAND, WASHINGTON, (hereinafter referred to as the “Employer”), and the Kirkland Police Guild (hereinafter referred to as the “Guild”).

The purpose of the Employer and the Guild in entering into this Agreement is to set forth their entire agreement with regard to wages, hours, and working conditions so as to promote uninterrupted public service, efficient operations, and harmonious relations, giving full recognition to the rights and responsibilities of the Employer and the Employees.

**ARTICLE 1 – DEFINITIONS**

As used herein, the following terms shall be defined as follows:

“Bargaining Unit” shall include all full-time commissioned Police Officers, Corporals, and Sergeants within the City of Kirkland Police Department.

“Employee” shall mean regular, full-time employees in the bargaining unit (as defined in Article 3 and Article 5) covered by this agreement.

“Employer” shall mean the City of Kirkland, Washington.

“Health Care Provider’s Statement” shall mean a written statement from a professional health care provider certifying an illness or injury, the date an Employee is anticipated as able to return to full duty or a recommendation of modified duty with reasonable accommodation, and the Employee’s ability to perform the required duties.

“Immediate family” shall be defined as persons related by blood, marriage, or legal adoption in the degree of relationship of grandparent, parent, wife, husband, brother, sister, child, grandchild, domestic partner (as defined by Employer Policy), and other persons with the approval of the City Manager or designee.

“On-Call” status shall mean an employee who is assigned on-call status and has an individual duty to respond to duty.

“Special Assignment” is defined as those specific job assignments, requiring specialized training, knowledge, skill, or expertise, as identified in Article 7.4.

“Standby” shall mean an employee specifically approved by command staff to be ready reserve for a specific period of time and is on compensable time, prepared and available to be assigned for immediate service as needed.

“Temporary Assignment” is defined as any other assignment besides Special Assignment and Auxiliary Duties.

## **ARTICLE 2 – RECOGNITION**

### **2.1 RECOGNITION**

The employer recognizes the Guild as the sole and exclusive bargaining representative for all commissioned employees below the rank of Lieutenant for the purpose of representation and collective bargaining with regard to matters pertaining to wages, hours, and conditions of employment.

### **2.2 NEW CLASSIFICATIONS**

If new classifications are established by the Employer and added to the bargaining unit, if the duties of existing classifications are substantially changed, or if an employee is appointed to a position substantially different than the employee’s classification, a proposed wage scale shall be assigned thereto, and the Employer shall forward the new or changed class and proposed wage to the Guild for review. The contract will then be subject to reopening for the sole purpose of negotiating a wage for the class, and only if so requested by the Guild. If the parties cannot agree to the pay range after negotiations and mediation, the matter shall be submitted to binding arbitration. The interest arbitrator shall establish a fair and equitable pay scale for the new or changed classification using interest arbitration statutory processes.

### **2.3 CONTRACT PROPOSALS**

The Employer recognizes and agrees to discuss contract proposals with the members of the Guild’s Executive Board or their designated representative(s) only. The Guild recognizes the City as the representative of the people of the City of Kirkland and agrees to negotiate only with the City through the negotiating agent or agents officially designated by the City Manager to act on its behalf.

The Guild will promptly notify the Human Resource Director and the Chief of Police in writing of their designated representative(s).

### **ARTICLE 3 – GUILD SECURITY**

#### **3.1 MEMBERSHIP**

The Employer recognizes that members of the Kirkland Police Department may, at their discretion, become members of the Guild. The Guild accepts its responsibility to fairly represent all employees in the bargaining unit regardless of membership status.

#### **3.2 DUES DEDUCTION**

The Employer, when authorized and directed by a member of the Guild in writing upon an authorization form provided by the employer to do so, shall deduct Guild dues from the wages of an employee.

3.2.1 Payroll Deduction – Upon written voluntary authorization from an employee within the bargaining unit, the Employer shall deduct from the wages of that employee the sum certified as assessments and monthly dues of the Guild and shall forward such sum to the Guild. Should any employee not have any monies due to them, or the amount of such monies is not sufficient to satisfy the assessments, no deduction shall be made for that employee for that month.

3.2.2 An authorization for payroll deduction may be canceled upon written notice to the Employer and the Guild before the 15th day of the month in which the cancellation is to become effective, subject to the provisions of this article.

3.2.3 The Guild shall indemnify, defend, and hold the Employer harmless against claims made and against any suit instituted against the Employer on account of any check-off of dues for the Guild. The Guild shall refund to the employer any amounts paid to it in error on account of the check-off provision upon presentation of proper evidence thereof.

#### **3.3 BARGAINING UNIT ROSTER**

The Employer shall provide the Guild with a roster of employees covered by this Agreement on a monthly basis.

The Guild agrees to supply both the Chief and Human Resources with a current list of Guild officers. The Employer will recognize the officers as soon as the list is received, in writing, by the Department and Human Resources.

#### **3.4 NONDISCRIMINATION – GUILD ACTIVITY**

Neither party shall discriminate against any employee or applicant for employment because of membership in or non-membership in or activity on behalf of the Guild.

### **ARTICLE 4 – GUILD/EMPLOYER RELATIONS**

#### **4.1 GUILD ACCESS**

The Guild's authorized staff representatives shall have access to the Employer's premises where employees covered by this Agreement are working for the purpose of investigating grievances and contract compliance, after notifying the Employer. Access for other purposes shall not be unreasonably denied by the Employer. Such visits shall not interfere with or disturb employees in the performance of their work during working hours.

#### **4.2 FACILITY USE**

Guild meetings may be scheduled and held on City premises. The Chief's approval pursuant to this Section shall not be unreasonably withheld.

#### **4.3 STEWARDS**

The Executive Board of the Guild, or other designee, represents the members as stewards.

#### **4.4 ORIENTATION**

During the new employee orientation process, the Employer will notify the employee of Article 3.1 and Guild contact information.

#### **4.5 BULLETIN BOARDS**

The City shall permit the reasonable and lawful use of bulletin boards by the Guild for the posting of notices relating to official Guild business.

#### **4.6 CONTRACT DISTRIBUTION**

The Guild will provide access to a copy of this Agreement to each new and current employee in the unit.

#### **4.7 NEGOTIATIONS RELEASE TIME**

The Employer shall endeavor to allow a minimum of three (3) members of the Guild's negotiation committee to attend negotiation sessions during on-duty time, provided however, that operational necessities shall remain the priority and not more than two of the on-duty members shall be from any single division or workgroup, without prior authorization of the Chief or designee. Such members shall be designated by the Guild at least one (1) week in advance, where possible, and may include individuals assigned to other than day shift if the Employer determines that staffing on that shift is adequate, without the necessity of overtime (such individuals shall be considered to be transferred to day shift for the day on which the negotiation session is held).

#### **4.8 GRIEVANCE RELEASE TIME**

Prior to any proposed investigation of a grievance requiring any substantial use of on-duty time, stewards or officers shall provide notice to the Chief or designee.

#### **4.9 GUILD BUSINESS**

The Chief or designee shall endeavor to allow Guild Officials time off while conducting official "duty to represent" guild business on behalf of employees in the bargaining unit, including grievance resolution and arbitration, provided that:

4.9.1 They notify the Employer at least forty-eight (48) hours prior to the time off, unless such notice is not reasonably possible;

4.9.2 The Employer is able to properly staff the employees' job duties during the time off; and

4.9.3 The wage cost to the Employer is no greater than the cost that would have been incurred had the Guild Official not taken time off (i.e., no overtime expenditures).

## **ARTICLE 5 – EMPLOYMENT**

### **5.1 PROBATIONARY PERIODS**

New Employee /Promoted Employee\_Probationary Period

5.1.1 Probationary period for new officers will be completed 12 months after assignment to solo patrol status in order to allow sufficient time to evaluate the new Officer.

5.1.2 Lateral Candidates, who do not attend the 720 hour Academy, will serve a probationary period that will be completed 12 months after assignment to solo patrol status in order to allow sufficient time to evaluate the new Officer.

5.1.3 Employees promoted to Police Corporal or Police Sergeant will serve a probationary period of 12 months.

5.1.4 When any probationary employee misses more than 30 days in a row, including modified duty time, his or her probationary period shall be extended the same number of days he or she was absent.

### **5.2 TYPES OF EMPLOYMENT**

The employment positions of this bargaining unit are covered by and subject to Civil Service regulations. Regular position appointments are described therein. The establishment and appointment to other types of employment would require agreement by the Employer, Guild and Civil Service Commission.

### **5.3 CONTRACTORS**

Not applicable to this unit.

### **5.4 STUDENTS/INTERNS/VOLUNTEERS**

Student, volunteers and Internship programs may be created by the Employer provided such programs do not involve bargaining unit work. In the event the Employer seeks to have volunteers conduct bargaining unit work, it will provide notice to the Guild and negotiate any such change.

## **ARTICLE 6 – HOURS OF WORK AND OVERTIME**

### **6.1 WORKDAY/WORKWEEK**

6.1.1 For the term of this agreement (2020-2022), these provisions as outlined in Article 6 shall apply.

6.1.2 For purposes of the shift assignment language in this Article, operational need shall be defined as relationship issues, personality conflicts, and other like issues, and active auxiliary duties in SRT, Firearms, DT.

6.1.3 Any employee reassigned to a different shift due to auxiliary duties shall receive equal to one and one-half percent (1.5%) of their base salary paid only for the duration of the time spent in the different bid position.

6.1.4 Additionally, operational need extends to reassignments for employee performance, provided that such reassignments shall be for grievable just cause, provided further that any such reassignments shall be considered for progressive discipline purposes to be the equivalent of a written reprimand.

6.1.5 There shall be a total of three (3) shifts: Days, Swings, and Nights. The work week for all patrol officers shall be four consecutive 10 hour days, followed by 3 consecutive days off except for the week during which patrol officers transition to their new shift, which could see some officers working 7 or more consecutive days over two Work Periods. All time worked in excess of the normal or regularly assigned work week shall be compensated in accordance with Article 6.5.

<u>Shift</u>	<u>Hours</u>	<u>Monday – Thursday</u>	<u>Thursday – Sunday</u>
Day Shift:	0630 to 1630	A Squad	B Squad
Swing Shift:	1500 to 0100	C Squad	D Squad
Night Shift:	2100 to 0700	E Squad	F Squad

Minimum Staffing for leave time and overtime considerations shall not fall below 18 patrol staff (includes Sergeants and Corporals) during any 24 hour period.

During the term of this contract, based on operational needs, management reserves the right to change:

1. The minimum staffing per 24 hour period, which will not be less than the minimum of 18.

2. The staffing allocation per squad (minimum plus one) and staffing assignments, including the allocation of Sergeants and Corporals within each squad.

The parties understand that the established minimum staffing level shall be used both for purposes of granting (or denying) leave requests and invoking overtime or backfill to provide staffing to cover the stated minimum, provided that for purposes of leave requests there is a “plus one” that recognizes a buffer to accommodate non-discretionary leave.

6.1.6 Effective February, 2016, the work hours for Patrol shall be the equivalent of 2080 hours on an annualized basis. For purposes of complying with the Fair Labor Standards Act, as authorized by the 7(k) exemption, the work period shall be twenty-eight (28) days (“Work Period”), scheduled in seven (7) day increments, Thursday through Wednesday. The Employer shall publish and make available the actual dates of the FLSA twenty-eight (28) day cycles for the term of this agreement.

6.1.7 Traffic Officers shall work four (4) consecutive ten (10) hour shifts with three (3) consecutive days off. The Traffic Officer duties may be adjusted to meet operational needs within their normal shift time. The Traffic Officer start times may be adjusted by four (4) hours (earlier or later) which cannot affect their days off.

6.1.8 Detectives shall work four (4) consecutive ten (10) hour shifts with three (3) consecutive days off. The Detective Sergeant position will be four (4) consecutive ten (10) hour shifts with three (3) consecutive days off. Corporals or Senior Corporals shall work staggered shifts.

The schedule of four (4) consecutive ten (10) hour shifts with three (3) consecutive days off may only be changed for training (other than in-service) or conference of more than one workweek in duration. Changes for other purposes are subject to the provision of Article 6.1.11.

6.1.9 The schedule for the School Resource Officer (SRO) shall be five (5) consecutive days per week, eight (8) hours per day, with not less than two (2) consecutive days off. The total hours worked shall not exceed forty (40) hours unless expressly pre-approved by the Unit Supervisor or Command Staff. The starting and ending time may be staggered by a maximum of four (4) hours to meet operational needs or if requested by the employee and approved by the Supervisor. Employees in the Unit may be scheduled to work with other divisions in the event of operational or staffing needs. Employee Volunteers will be assigned to the Unit, provided the employer retains the right to assign employees where no volunteers are forthcoming, provided further that if a non-volunteer is utilized the normal rules from this article concerning schedule changes and overtime shall apply.



The Neighborhood Resource Officers (NRO), Training Officers, Training Sergeant, and Community Service Unit (CSU) Sergeant shall work either a four (4) days per week, ten (10) hours a day work week, or a five (5) days per week, eight (8) hours per day work week; with the standard work schedule being 4-10's with three consecutive days off. The starting and ending time may be staggered by a maximum of four (4) hours to meet operational needs or if requested by the employee and approved by the Supervisor.

6.1.10 The working hours for Traffic and Detectives shall be equivalent to 40 hours a week or an annualized basis of 2080 hours. The working hours for Patrol shall be equivalent to 40 hours a work period on an annualized basis of 2080 hours, and all briefing and other preparatory time shall be included in the regular work shift.

6.1.11 Employees shall be provided at least fourteen (14) calendar days notice prior to a change in their regular shift, unless mutually agreed to waive by the employee, Guild and Employer. For purposes of complying with Article 7(k) of Fair Labor Standards Act, the Patrol Division work period shall be twenty-eight (28) days and the Detective Division, Training Unit and Traffic Unit seven (7) days (Monday through Sunday).

6.1.12 The Pro Act Officers will work a 4/10 schedule, with ten (10) consecutive hours per workday. The parties agree that the weekly work schedule will be flexible, in order to address crime trend and assignments in a timely manner and not bound by Article 6.1.11. This flexibility will allow starting times to vary by a maximum of four (4) hours (earlier or later) to meet operational needs or if requested by the employee and approved by the supervisor. There will not be less than two (2) consecutive days off each work week, without resulting in overtime.

6.1.13 Officers may request a maximum of a four hour adjustment in their normal shift start time, with the approval of the Unit supervisor on days that are either preceding or following their normally scheduled shift with the shift ending the same number of hours later. These requests may be used in order to accommodate training and/or known court conflicts. Approved leave will not be cancelled to accommodate the adjustment request. The Employer may deny or revoke the adjustment to maintain minimum staffing levels in accordance with Article 6.1.5.

In addition, those Officers who are assigned to graveyard shift may be relieved from duty the shift preceding the training without loss of time and with command staff approval when the following criteria are met:

- Must be attending either mandatory department training and/or instructing for department in-service or representing the department in an official capacity.
- Training/Instruction date falls between two shifts.
- Training/Instruction starts before 1000 hours.

All efforts will be made by the Unit supervisor and the Training Unit to minimize these occurrences and to continue to utilize shift adjustments when possible.

6.1.14 The schedule for newly created assignments, and other assignments not described above, shall be established by the City, notice provided to the Guild, and bargained upon request.

## **6.2 PATROL SQUAD BIDDING**

6.2.1 Squad Bidding. Uniform patrol personnel will be afforded the opportunity to bid for their preferred squad (A, B, C, D, E, F) in uniform patrol based upon their classification seniority. Probationary personnel are exempted and excluded from the bid process, except that probationary personnel who are projected to be off probation prior to the new schedule starting may participate in the shift bid.

6.2.2 Employees to be assigned to patrol will bid annually for their preferred squad by classification based upon seniority and through submittal of a bid sheet. Personnel on leave who do not make themselves available may submit their bid sheet electronically. Should the employee fail to respond prior to the deadline, they shall sacrifice their place in the bid process.

6.2.3 Once employees have submitted their bids for their preferred squad, the department may balance personnel within each shift (days, swing, or night shifts).

6.2.4 Once the bid has been finalized and posted, if an opening occurs on a shift prior to the beginning of the new schedule starting because of a promotion, transfer or other vacancy, management will utilize the existing bid sheets to fill this vacancy; provided, employees may decline the new shift assignment and maintain their original shift that resulted from the finalized and posted shift bid. Once the new schedule starts, any vacancy or rebalancing of the squads will be done in accordance with 6.2.6.

6.2.5 The Department will utilize a twelve (12) and/or fourteen (14) week rotation of the work week (days off) for the patrol division beginning February 2016. Some Officers may potentially work seven (7) consecutive days during the week that straddles the end of one rotation and the start of the next one. However, because those seven (7) days occur over two distinct twenty-eight (28) day work periods, no overtime will need to be paid for hours worked during that week resulting from the transition from one squad to another. In the event overtime

nonetheless does occur during this transition week for reasons other than the transition from one squad to another, overtime would be paid.

6.2.6 The Department may move an officer during the year based upon shift imbalances created by reduced staffing levels due to extended absence (i.e. - FMLA, L&I, Administrative Leave, Employee Resignation) or other like causes. In making such changes, the Department will determine which squad an employee will be removed from. The Department will request volunteers and make remaining assignments by utilizing the least senior officer(s) from the designated squad. Any deviations from seniority for such rebalancing is subject to the “operational needs” language in this Article.

6.2.7 Probationary employees shall not be allowed to draw a squad, except as allowed by 6.2.1 and will be assigned to allow for the development of police skills during the probationary period.

6.2.8 Employees reassigned, outside the bid process, to the patrol division from other organizational units shall be assigned where the personnel needs of the department dictate. Squad assignments will be subject to the Department’s discretion to reassign (at any time) for operational need. Before any reassignment is made, the Department will notify the involved employee and the Guild with an explanation in writing for such reassignment.

Any reassignments will be made in accordance with Article 6.1.11 and give consideration to seniority.

### **6.3 POWER SHIFTS**

In administering hours of duty, the Employer will maintain existing shift arrangements except as follows:

6.3.1 The City may add a “power shift” or other special shift arrangement to include such hours as the Chief of Police directs; including shifts consisting of 8, 10, or 12 hours.

6.3.2 Such “power shift” or other special shift arrangement shall be staffed initially by (employee) volunteers.

6.3.3 If a sufficient number of qualified (employee) volunteers fail to come forward, shifts will be staffed by the Chief of Police using criteria that meets the reasonable operating needs of the employer, taking into consideration the seniority of affected employees where practical.

Power shift assignments will be for a minimum of twelve (12) months and may be extended with the concurrence of the assigned officer to meet the operational needs of the department. Officers will not be required to complete more than one power shift assignment in any forty-eight (48) month period.

6.3.4 Additionally, the Chief of Police may temporarily adjust the existing shifts if personnel shortages or an unanticipated event is deemed to hamper the effectiveness of the police department. Once the department is re-staffed or the event is over, the department will return to the existing shifts.

#### **6.4 REST/MEAL BREAKS**

For employees on eight (8) and ten (10) hour shifts, a workday shall include at least a thirty (30) minute lunch break. For employees on twelve (12) hour shifts, a workday shall include at least two (2) thirty (30) minute lunch breaks.

#### **6.5 OVERTIME**

All work, which has been specifically pre-approved by supervisory personnel, performed in excess of the normal work day or on a day off shall constitute overtime and shall be paid for at one and one-half times the employee's straight time hourly rate, unless such work is caused by change of shift, as set forth in Article 6.1 above. For officers working either eight (8) or ten (10) hour shifts, the hourly rate shall be determined by dividing the annual straight time hourly rate by 2080. For officers working twelve (12) hour shifts, the hourly rate shall be determined by dividing the annual straight time hourly rate, by 2190 hours. To the basic hourly rates, certain additional payments (per the FLSA) are included to calculate an employee's regular rate for overtime purposes. All overtime shall be compensated for in increments of fifteen (15) minutes with the major portion of fifteen (15) minutes being paid as fifteen (15) minutes.

#### **Overtime – Minimum Call-Back, Court Appearances, and Breathalyzer Hearings**

In the event that overtime which has been specifically pre-approved by supervisory personnel is not an extension at the beginning or end of a normal shift, the employee shall be paid at the rate of one and one-half times his regular hourly rate commencing at the time work is actually being performed or as is otherwise required by the FLSA, with a minimum of three hours. Court hearings, as well as breathalyzer hearings will be considered, upon notification, as specifically pre-approved by supervisory personnel. It is mandatory for an employee to respond to work if so directed by supervisory personnel.

PIO Cadre: If a PIO Cadre member is asked to perform PIO tasks from home, he or she shall receive overtime compensation or comp time at the overtime rate for actual time worked in fifteen (15) minute increments, with a fifteen minute minimum (e.g. PIO Cadre member will be paid fifteen minutes at the overtime rate if the actual time worked is seven minutes). However, if the actual time worked exceeds sixty (60) minutes in total or if the PIO Cadre member responds to the station to perform the requested tasks, the three (3) hour minimum call-back pay or comp time provisions will apply (e.g., if the actual time worked for all press releases from home that day totals more than sixty minutes, the PIO Cadre member will be paid three hours at the overtime rate).

#### **6.6 COMPENSATORY TIME**

6.6.1 Generally, overtime shall be paid rather than compensatory time granted. Overtime shall be compensated or compensatory time awarded at the rate of one and one-half (1½) times the employee's regular rate of pay or in the case of Call-back a minimum of three (3) hours of overtime or compensatory time shall be granted. Compensatory time shall be awarded by mutual agreement between the employee and the supervisor at the time of authorizing the overtime.

Should an employee be ordered / "mandatoried" to work overtime, the employee may make an election within the pay period for either compensatory time to be awarded or for the overtime to be paid.

An employee may only accrue compensatory time up to a maximum balance of 60 hours.

6.6.2 Compensatory time, accrued in lieu of cash compensation for overtime hours worked, shall be paid out on an annual basis, on the first pay day following November 1st, for all hours earned through October 31st.

## **6.7 LEAVE CONSIDERATIONS**

6.7.1 Employee leave will not be granted on July 4<sup>th</sup> (Patrol and Traffic, all shifts) & December 31<sup>st</sup> (Patrol swing shift & Patrol night shift) However, on the years in which July 4th falls on a Thursday, which is an overlap day under the current schedule as outlined in Article 6.1.5 of the CBA, the following procedures apply: If the City is having a 4th of July parade and/or fireworks show, overtime will be posted for one week for the parade and the fireworks show by the first Monday in June. At the end of this posting, any openings will be filled by on-duty personnel working at their normal holiday pay rate. Once it is determined how many on-duty personnel will be needed to fill these openings, personnel may request leave time which will be granted by seniority. Those on-duty employees who are assigned to work the parade and/or fireworks show may continue to work the rest of their shift or request leave time when the assignment ends if staffing allows. Leave will not be approved that would lower overall staffing below 2 + 10 across all shifts, not at the squad level. If the City is not having a 4th of July organized celebration, personnel may request leave time which will be granted by seniority across shifts, not at the squad level. Leave will not be approved that would lower overall staffing for any shift below 2 + 10. On the years in which December 31st falls on a Thursday, which is an overlap day under the current schedule as outlined in Article 6.1.5 of the CBA, personnel may request leave time which will be granted by seniority across shifts, not at the squad level. Leave will not be approved that would lower overall staffing for any shift below 2 + 10.

6.7.2 The Department reserves the right to deny all personal leave for emergent situations including but not limited to such things as Presidential visits, major sporting events, political/social events likely to cause civic unrest, local special events likely to attract large crowds and like reasons.

6.7.3 The Department reserves the right to deny all personal leave with 14 day's notice for In-Service training or other similar department functions.

6.7.4 The Department reserves the right to deny all leave requests that will result in the relevant shift going below minimum plus one staffing.

## **6.8 DISPUTE RESOLUTION**

The parties commit to participate in labor management meetings as requested or at least quarterly, to discuss issues with the schedule (other labor management topics, as needed).

## **ARTICLE 7 – EMPLOYMENT PRACTICES**

### **7.1 NONDISCRIMINATION**

The Guild and the Employer agree to provide equal opportunity as to the provisions of this Agreement to all their members and employees. Neither the Employer nor the Guild shall discriminate against any person on the basis of such person's race, sex, marital status, color, creed or religion, national origin, age, veteran status, sexual orientation or the presence of any sensory, mental or physical disability, unless based upon a bona fide occupational qualification.

Wherever words denoting a specific gender are used in this Agreement, they are intended and shall be construed so as to apply equally to either gender.

### **7.2 JOB POSTING**

When any position becomes vacant, the Employer will make every reasonable effort to fill it as soon as possible.

### **7.3 PROMOTIONS**

#### **Corporal/Senior Corporal Classification:**

The following are the requirements to be eligible for promotions within the bargaining unit:

7.3.1 To be eligible for promotion to Corporal candidate shall have a minimum of three (3) years full time police experience as a commissioned police officer with two (2) years of service in the City of Kirkland.

7.3.2 To be eligible for a Sr. Corporal classification, the candidate shall have two (2) years of service in grade as a Corporal in Kirkland.

#### **Sergeant:**

7.3.3 To be eligible for promotion to Sergeant, candidate shall have a minimum of five (5) years full time experience as a commissioned police officer with four (4) years of service in Kirkland.

7.3.4 Candidates for promotional vacancies within the Guild shall come from an adequately sized pool of eligible candidates from the bargaining unit. An “adequately sized pool” shall be defined as two candidates who meet the qualifications as defined by Section 7.3.1 and 7.3.3

7.3.5 During the term of the agreement management will maintain a minimum total of twelve (12) Corporal and Senior Corporals.

## **7.4 SPECIAL ASSIGNMENTS**

7.4.1 Special Assignment is defined as a primary job assignment, requiring specialized training, knowledge, skill, or expertise. These include Detective, Canine Officer, Traffic, ProAct, PTO, Training Unit, and Community Services Unit.

7.4.2 Auxiliary Duties are those duties performed in addition to patrol duty or specialty duty. Employees are assigned an auxiliary duty after applying for the position and being selected through a competitive testing process. If no employee applies for the position the Chief may appoint an employee to the position for a period of no greater than two (2) years. Auxiliary duties may have a minimum and maximum time commitment. Employees assigned to auxiliary duties may be required to provide regular training in their area of expertise or assist patrol with their expertise.

7.4.2.1 Among other duties, auxiliary duties include firearms instructors, defensive tactics instructors, SWAT members (includes SRT and HNT), and less lethal instructors. Employees assigned to firearms, defensive tactics, SWAT (including SRT and HNT) and less lethal shall receive a two percent (2%) premium added to the monthly rate of pay of the employee’s current classification. An employee shall be eligible to receive compensation for only one auxiliary duty assignment. An employee cannot serve concurrently in more than one auxiliary duty assignment receiving a premium except SWAT and firearms, SWAT and defensive tactics or SWAT and less lethal.

All other assignments which are not Special Assignment or Auxiliary Duty are considered Temporary Assignments.

7.4.3 Employees in a Special assignment shall remain for five (5) years unless the employee’s job performance does not meet requirements or the employee requests a transfer or a Special assignment position is eliminated. Employees completing their five (5) year Special assignment may be considered for additional one (1) year extensions based on the operational needs of the department. A notification of a Special assignment opening shall include a minimum time duration for the position. Employees selected for Special Assignment positions will be subject to the department rotation policy without additional incentive pay, unless specifically bargained during future contract

negotiations. Rotation or removal for non-disciplinary reasons from a Special, Auxiliary, or Temporary Assignment position is not subject to the grievance procedure.

Additionally, the Detective Unit and Traffic Unit shall include long term “anchor” position(s). Such positions as authorized shall be for a period of ten (10) years, with potential extensions as above. To be eligible for such position, an employee must have served or be serving a tour with the Employer as a detective, or traffic officer, having completed a period of at least three (3) consecutive years and having served in good standing.

7.4.4 Appointment to a Special, Auxiliary, or Temporary Assignment position will be based on a combination of any or all of the following: résumé; written and/or oral examinations; past work performance. Any Special, Auxiliary, or Temporary Assignment eligibility list shall not exceed twelve (12) months.

7.4.5 In the event a non-voluntary assignment is made to a Special, Auxiliary, or Temporary Assignment position in order to meet operational needs, the assignment will be for a maximum of twelve (12) months and may be extended with the concurrence of the assigned officer.

7.4.6 Police management will make the assignments and provide fourteen (14) calendar days notice except in the cases of emergencies and promotions.

## **7.5 PERSONNEL FILES**

Personnel Files – The City Human Resources Division will retain the permanent personnel file. The Police Department shall maintain only one working personnel file for each employee.

Supervisory notes - This does not preclude a supervisor from maintaining notes regarding an employee’s performance for purposes of formulating evaluation and performance appraisal or the department from maintaining separate computerized records relating to training, promotion, assignment, or similar data.

Information related to medical, psychological, background check information and grievance records shall be maintained in separate files.

Employees shall have access to their personnel file with reasonable frequency. Upon request, access shall be provided within a maximum of four (4) working days. Conditions of hiring, termination, change in status, shift, evaluations, commendations and disciplinary actions shall be in writing with a copy to the Employee prior to placement in their personnel file.



Upon receiving a request for all or part of a personnel file from any third party, the affected employee shall be notified of the request, and the information shall not be released for a period of three (3) business days from the time of said notification, except as part of an investigation being conducted by another law enforcement agency, the disclosure of which is necessary for effective law enforcement. Upon service of a court order or subpoena properly recorded and signed by a judge or magistrate demanding immediate release or as otherwise required by law, the employee shall be notified of the request and release will be made as required by law or as above. The City Attorney will advise the department in all matters pertaining to the release of information contained in a personnel file.

Employees shall have the right to provide a written response to any written evaluations or disciplinary actions to be included in the personnel file, which, together with the action, will be retained with the action in the personnel file.

Personnel Records Retention:

Records of disciplinary action may be retained in an employee's personnel file for a period of not more than five (5) years. After five years has elapsed, the employee may request in writing the removal of such records which shall be granted unless the employee's personnel record indicates a pattern of similar types of discipline, in which case, all such records may be retained until an additional period of two (2) years has elapsed, during which there has been no further disciplinary action for the same or similar behavior. After two years has elapsed, the employee may request in writing removal of the record of disciplinary action.

Records retained in an employee's department personnel file longer than provided in this section shall not be admissible in any proceedings concerning disciplinary action, provided that the parties retain the right to introduce evidence regarding prior discipline of other employees for the purpose of establishing the consistency or non-consistency of discipline imposed in a case subject to a disciplinary appeal.

## **7.6 EVALUATIONS**

The purpose of evaluation is to help an employee to be successful in performance and to understand the standards and goals of their position and their department. The evaluation will assess and focus on the employee's accomplishment of their job functions and the goals and standards of the position. Where the employee does not meet the above, a plan for correction, training or support should be developed with the employee.

Evaluation may occur in two forms:

7.6.1 All regular employees should be formally evaluated in writing by their immediate supervisor and/or department head or designee during the probationary or trial service period and at least annually (at date of hire or a common date) thereafter.

7.6.2 Additionally, evaluation of job performance may occur at any time and on an ongoing basis. Evaluation may occur in various ways and may include coaching, counseling or written assessment.

The evaluation process shall also include a review of the current job description.

Evaluation shall not, by itself, constitute disciplinary action – disciplinary action must be specifically identified as such, in writing, consistent with Article 7.8.

Employees will be given a copy of the evaluation. Employees will be required to sign the evaluation, acknowledging its receipt. Evaluations are not grievable, however, employees may elect to provide a written response to the evaluation, which will be retained with the evaluation in the employee's personnel file.

## **7.7 BILL OF RIGHTS**

All employees within the bargaining unit shall be entitled to the protection of what shall hereafter be termed as the "Police Officers Bill of Rights." The wide-ranging powers and duties given to the department and its members involve them in all manner of contacts and relationships with the public. Of these contacts come many questions concerning the actions of members of the force. These questions often require an immediate investigation by superior officers designated by the Chief of Police. In an effort to ensure that these investigations are conducted in a manner, which is conducive to good order and discipline, the following guidelines are promulgated:

7.7.1 Employees shall be informed in writing, of the nature of the investigation, the right to request Guild representation, and whether they are a witness or a subject of the investigation, before any interview of the employee commences. In investigations other than criminal, this will include the name, address, and other information necessary to reasonably apprise them of the allegations of such complaint.

An employee who is identified as a subject of the investigation, shall be advised in writing a minimum of forty-eight (48) hours prior to the time of the interview, if the interviewer either knows or reasonably should know that the questioning concerns a matter that could lead to criminal charges or misconduct that could be grounds for termination. Employees who are given a forty-eight (48) hour notification may waive that delay by signing a written waiver form, provided that the employee either has Guild representation or waives the right to such representation in writing.

7.7.2 Any interview of an employee shall be at a reasonable hour, preferably when the employee is on duty unless the exigencies of the investigation dictate otherwise. Where practicable, interviews shall be scheduled for the daytime.

7.7.3 The interview, which shall not violate the employee's constitutional rights, shall take place at the Kirkland Police Station facility, except where impractical.

The employee shall be afforded the opportunity and facilities to contact and consult privately with an attorney of the employee's own choosing and/or a representative of the Guild. Said attorney and/or representative of the Guild may be present during the interview but shall not participate in the interview except to counsel the employee, provided that the Guild representative or attorney may participate to the extent permitted by law.

7.7.4 The questioning shall not be overly long, and the employee shall be entitled to such reasonable intermissions as they shall request for personal necessities, meals, telephone calls, and rest periods.

7.7.5 The employee shall not be subjected to any offensive language, nor shall they be threatened with dismissal, transfer, or other disciplinary punishment as a guise to attempt to obtain their resignation, nor shall they be intimidated in any other manner. No promises or rewards shall be made as an inducement to answer questions.

7.7.6 It shall be unlawful for the City to require any employee covered by this agreement to take or be subjected to any polygraph or any polygraph type of examination as the condition of continued or continuous employment or to avoid any threatened disciplinary action.

7.7.7 At the employee's request, the interview shall be recorded on tape. One copy shall be provided to the Guild representative or employee. There shall be no "off-the record" questions. Within seven (7) calendar days of the completion of the investigation, and no later than three (3) calendar days prior to a pre-disciplinary hearing, the employee shall be advised of the results of the investigation and the recommended disposition and shall be furnished a complete copy of the investigation report, provided that the Employer is not required to release statements made by persons requesting confidentiality where the request was initiated by such persons and provided further that such confidential statements may not be relied upon to form the basis of discipline. All interviews shall be limited in scope to activities, circumstances, events, conduct or actions which pertain to the incident which is the subject of the investigation. Nothing in this section shall prohibit the Employer from questioning the employee about information which is developed during the course of the interview.

7.7.8 Use of Deadly Force Situations: When an employee, whether on or off duty, uses deadly force which results in the injury or death of a person, or discharges a firearm in which no injury occurs, the employee shall not be required to make a written or recorded statement for twenty-four (24) hours after the incident except that immediately following the incident the employee shall verbally report to a superior a brief summary of the incident and any information necessary to secure evidence, identify witnesses, or apprehend suspects. The affected employee may waive the requirement to wait twenty-four (24) hours.

The department and the Guild shall mutually agree on designated peer support counselors.

7.7.9 Medical or Psychological Examinations: When there is probable cause to believe that an employee is medically or psychologically unfit to perform his/her duties, the employer may require the employee to undergo a medical or psychological examination in accordance with current standards established by the Washington Association of Sheriffs and Police Chiefs, the International Association of Chiefs of Police, the Americans with Disabilities Act, and other applicable State or Federal laws. Consultations with the City's Employee Assistance Program are not considered medical or psychological examinations.

## **7.8 DISCIPLINE/CORRECTIVE ACTION**

No employee shall, by reason of his employment, be deprived of any rights or freedoms, which are afforded to other citizens of the United States by the State and Federal Constitutions and Washington law.

No employee shall be compelled by the City to give self-incriminating information, either verbal or written, during any criminal investigation when such investigation involves allegations against the employee nor in any internal investigation which could lead to a criminal charge against the employee. Any refusal by an employee to give self-incriminating information under these conditions will not result in the employee's termination, suspension, reprimand, transfer, or any other form of disciplinary action by the City.

The Employer agrees to act in good faith in the discipline, dismissal or demotion of any regular employee and any such discipline, dismissal or demotion shall be made only for just cause.

The parties recognize that just cause requires progressive discipline. Progressive discipline may include:

- oral reprimands, which will be documented;
- written reprimands;
- disciplinary transfer;
- suspension with or without pay;
- demotion; or
- discharge.

The intent of progressive discipline is to assist the employee with performance improvement or to correct misconduct. Progressive discipline shall not apply where the offense requires more serious discipline in the first instance. Both the sequencing and the steps of progressive discipline are determined on a case-by-case basis, given the nature of the problem.

All disciplinary actions shall be clearly identified as such in writing. The employee will be requested to sign the disciplinary action. The employee's signature thereon shall not be construed as admission of guilt or concurrence with the discipline. Employees shall have the right to provide a written response to any written disciplinary action to be included in the personnel file, which, together with the action, will be retained in the personnel file, for so long as the disciplinary action is retained.

A copy of all disciplinary notices shall be provided to the employee before such material is placed in their personnel file. Employees disciplined or discharged shall be entitled to utilize the grievance procedure. If, as a result of the grievance procedure utilization, just cause is not shown, personnel records shall be cleared of reference to the incident, which gave rise to the grievance.

The Employer will notify the Guild in writing within three (3) working days after any notice of discharge. The failure to provide such notice shall not affect such discharge but will extend the period within which the affected employee may file a grievance.

The Employer recognizes the right of an employee who reasonably believes that an investigatory interview with a supervisor may result in discipline to request the presence of a Guild and/or legal representative at such an interview. Upon request, the employee shall be afforded a Guild representative. The Employer will delay the interview for a reasonable period of time in order to allow a Guild representative an opportunity to attend. If a Guild representative is not available or delay is not reasonable, the employee may request the presence of a bargaining unit witness. (Weingarten rights)

Employees shall also have a right to a notice and a determination meeting prior to any disciplinary action (except oral and written reprimands). The Employer must provide a notice and statement in writing to the employee identifying the performance violations or misconduct alleged, a copy of the investigative file as per Article 7.7.7, and a finding of fact and the reasons for the proposed action. The employee shall be given an opportunity to respond to the charges in a meeting with the Employer, and shall have the right to Guild representation during that meeting, upon request. (Loudermill rights)

The Employer shall endeavor to correct employee errors or misjudgments in private, with appropriate Guild representation if requested by the employee.

Discipline shall be subject to the grievance procedure in this Agreement as to whether or not such action as to any post-probationary employee was for just cause.

## **ARTICLE 8 – SENIORITY**

### **8.1 DEFINITIONS**

Seniority shall be established upon appointment to a regular full-time budgeted position within the bargaining unit.

**Bargaining Unit Seniority:** the total length of continuous calendar-based service with the Employer and in the bargaining unit.

**Employer Seniority:** the total length of continuous calendar-based service with the Employer.

**Classification Seniority:** the total length of continuous calendar-based service within a position and employment type represented by the bargaining unit. Classification seniority shall include all time at a higher ranked classification, for which the employee does not have continuing job rights.

Consistent with Article 14.5, the Employer shall adjust the employee's anniversary date to reflect any period of unpaid leave of thirty (30) continuous days or more. Seniority shall continue to accrue and the employee's anniversary date shall not be adjusted for periods of legally protected leave, such as FMLA, L&I or military leave adjusted for periods of up to six (6) months (or as otherwise required by USERRA).

## **8.2 APPLICATION OF SENIORITY**

In the event of reassignment, transfer, layoff, or recall, seniority shall be the determining factor where employees are equally qualified to do the job.

Seniority shall be applied in the following manner:

### **8.2.1 Postings / promotions**

In regard to job postings, promotion and reassignment, "qualifications" and/or "ability" will be the primary consideration, with seniority determinative where employees are equally qualified. Qualifications will include the minimum qualifications of education, training and experience as set forth in the job description, as well as the job performance, ability, employment record and contribution to the needs of the department. Specialty positions shall be filled in accordance with Article 7.4.3.

### **8.2.2 Layoffs**

Total classification seniority shall determine who is to be laid off within the selected classification (affected group). The least senior regular employee(s) within the classification shall be the affected employee(s). In the event of two employees having the same classification seniority, bargaining unit seniority shall be determinative. In the event of two employees having the same bargaining unit seniority, Employer seniority shall be determinative.

### **8.2.3 Bumping**

An employee shall be allowed to bump less senior employees (by bargaining unit seniority) within their department in lower classifications, in accordance with Article 8.12.2, provided that the employee is "competent" and has the ability to adequately perform the essential functions of the job assignment.

### **8.2.4 Recall**

Seniority shall be determinative in the identification of which employee is to be recalled, when there is more than one on the recall list who is qualified and/or have previously performed a position.

### **8.3 LOSS OF SENIORITY**

An employee will lose seniority rights by and/or upon:

8.3.1 Resignation.

8.3.2 Discharge.

8.3.3 Retirement.

8.3.4 Layoff / Recall list of more than fourteen (14) consecutive months, consistent with Article 8.14.

8.3.5 Medical Reinstatement / Recall list of more than twenty-four (24) consecutive months, consistent with Article 8.14.

8.3.6 Failure to respond to an offer of recall to former or comparable employment.

Employees who are re-employed following the loss of their seniority, shall be deemed a newly-hired employee for all purposes under this Agreement, except if an employee is recalled consistent with Article 8.14 and the time-lines therein, they shall regain the seniority that they had as of their last date of employment.

### **8.4 LAYOFFS**

A layoff is identified as the anticipated and on-going or prolonged reduction in the number of full-time equivalent (FTE) positions within the department or within a job classification covered by this Agreement. A reduction in force in classification may occur for reasons of lack of funds, lack of work, efficiency or reorganization. Reductions in force are identified by classification within the department.

### **8.5 NOTICE**

The Guild shall be notified of all proposed layoffs and of positions to which laid off employees may be eligible to bump through the attachment of a current seniority list.

Employees affected / being laid off shall be given written notice of such layoff thirty (30) calendar days prior to the layoff if possible. In no event shall written notice of layoff be less than fourteen (14) calendar days. If the Employer does not provide fourteen (14) calendar days written notice, the employer shall compensate the employee at his or her normal rate of pay for the time between the last day of work and fourteen (14) calendar from the date the employee receives the notice of layoff, in addition to any other compensation due the employee.

The employee shall inform the Employer within five (5) working days of the receipt of the notice of layoff of their intention to exercise bumping rights. When all bumping rights have been acted upon, or when someone has chosen not to act on their bumping right, the employee least senior or the employee choosing not to bump shall be the person laid off. Only one thirty (30) day notice of layoff is required, irrespective of the number of bumps.

An employee desiring to exercise bumping rights must do so by delivering written notice to the Employer within five (5) working days of receipt of notice of layoff. The written notice must state the proposed position to be bumped.

## **8.6 MEETING WITH GUILD**

The Guild shall also be notified in writing of any reduction in hours proposed by the Employer, including the purpose, scope, and duration of the proposed reduction.

Upon the Guild's request, the Employer and the Guild shall meet promptly during the first two (2) weeks of the notice period identified in Article 8.5 to discuss the reasons and the time-lines for the layoff and to review any suggestions concerning possible alternatives to layoff. Guild concerns shall be considered by the Employer prior to implementation of any reduction in hours. This procedure shall not preclude the Employer from providing notice to employees or requesting volunteers to take leaves of absence without pay, provided the Employer notifies the Guild of the proposed request.

## **8.7 AFFECTED GROUP**

The following procedure shall apply to any layoff:

### **8.7.1 Affected employees**

The Employer shall first determine by job classification the number of employees or FTEs to be affected by the layoff. The employee(s) holding such FTEs, which are subject to layoff, shall be the "affected employee(s)."

The least senior employee within the affected job classification shall be selected for layoff, consistent with Article 8.2.2.

In cases where seniority within a job classification is equal, bargaining unit seniority will be the determining factor. In the event this is also equal, Employer seniority will control. If all of the seniorities are equal, then Management shall make the final decision based on performance and job skills.

### **8.7.2 Volunteers**

Simultaneous with implementing the provisions of the layoff procedure, the Employer may first seek, by a five (5) working day posting process, volunteers for layoff or voluntary resignation from among those employees who work within the same job classification as the affected employees. If there are more volunteers than affected employees, volunteers will be chosen by bargaining unit seniority.



Employees who volunteer for layoff may opt for recall rights as described in this article at the time of layoff.

If there are no or insufficient volunteers within the affected job classification, the remaining affected employees who have received notice must choose promptly (within five (5) full working days of receipt of the Notice) among the layoff options set forth in Article 8.12.

#### **8.7.3 Probationary Employees**

If the number of volunteers is not sufficient to meet the announced number of necessary layoffs, and if the affected employee is an initial probationary employee, then that employee shall be laid off and is ineligible to select among layoff options.

### **8.8 VACANT POSITIONS**

Positions will be filled in accordance with Article 8.2 and other sections of this Article.

Within the bargaining unit and the department, affected employees and employees on the recall list shall be given first opportunity for vacant bargaining unit comparable positions prior to outside hiring by the Employer, consistent with Article 8.12.1.

### **8.9 SENIORITY LIST**

The Employer shall update the seniority list and provide it to the Guild monthly, consistent with Article 3.3. If a layoff is announced, a current ranked seniority list including job classifications, names, job locations, and FTE or hours per week shall be provided to the Guild and posted in the affected department.

### **8.10 ORDER OF LAYOFF**

The least senior employee (by classification seniority) within the affected job classification shall be selected for layoff. No regular employee shall be laid off while another employee in the same classification within the department is employed on a probationary basis.

### **8.11 COMPARABLE EMPLOYMENT**

For purposes of this Article, “comparable employment,” “comparable position” or vacancy shall be defined to include a position which has the same salary pay range and the educational and experience qualifications.

### **8.12 LAYOFF OPTIONS**

Affected employees who have completed their probationary period shall have the following options:

#### **8.12.1 Assume a Vacant Position**

On a bargaining unit seniority basis, to assume a vacant position of equal or lesser rank, in accordance with Article 7.4.3.

#### 8.12.2 Bump

Consistent with Article 8.2.3, laid off employees, including bumped employees, shall be allowed to bump less senior employees (by bargaining unit seniority) within their department in lower classifications.

An employee who has bumped shall move to the highest step of the new range that does not exceed their current salary.

If there is no employee in the next lower classification who is less senior than the person scheduled for layoff, that person may look progressively to the next lower classification for such bumping rights.

The employee who is bumped by the affected employee shall have the same rights under this Article.

#### 8.12.3 Recall

If the affected employee elects not to take a vacant position or elects not to bump, then that employee will be placed on the recall list and will be eligible for recall under Article 8.14.

Nothing contained in this layoff section shall be construed to require the Employer to modify its position and classification structure in order to accommodate bumping or other re-employment rights.

Employees bumping to another position shall retain their old anniversary date for purposes of step increases. Persons recalled to the same salary range shall be placed in their former step and time in step.

### **8.13 REDUCTION HOURS/FTE**

An employee will not be subject to an involuntary reduction in their FTE (i.e. less than full-time) absent notice and negotiation of the matter with the Guild. If the reduction results in hours less than their budgeted FTE, it will be considered a layoff and the affected employee shall have either the right to bump or go onto the recall list.

### **8.14 RECALL**

Any reference to recall rights and recall lists pertains to both those employees who are laid off or on medical reinstatement, as below:

An employee who has been laid off shall be entitled to recall rights for a period of fourteen (14) months from the effective date of their layoff.

An employee who is placed on the medical reinstatement list shall be entitled to recall rights for a period of twenty-four (24) months from the employee's last date of employment. Recall under this provision requires that the individual has been certified as fit for duty or fit for duty with reasonable accommodation by a medical health care provider statement. The department may, at its own expense, request a second opinion

by another health care provider(s) or panel. Should the employee be certified as fit for duty, that employee shall then be considered as laid-off and the provisions of Article 8.16 shall apply. Should that certification occur during the last six (6) months of the twenty-four (24) month period, that employee shall be entitled to recall for a period of six (6) months from the date of that certification.

Employees recalled after the initial fourteen (14) month period shall be subject to the background check process.

If a vacancy occurs in a position, employees on the recall list shall be notified of such vacancies at the employee's address on file with the Human Resources Department. The vacancy will be filled, in accordance with seniority, among current employees and those on the recall list. If employees on the recall list elect not to accept an offer to return to work in the former or a comparable position or fail to respond within seven (7) consecutive days of the offer of recall, they shall be considered to have terminated or abandoned their right to re-employment and relinquished all recall rights. If employees on the recall list elect not to accept an offer of a non-comparable position, they may retain their recall rights for the balance of their recall period.

As long as any employee remains on the recall list, the Employer shall not newly employ by hiring persons into the affected bargaining unit classification(s), within their department, until all qualified employees holding recall rights to that affected classification have been offered recall.

#### **8.15 VACATION & LEAVE CASH OUTS/PAY**

Upon separation of employment, an Employee shall be paid for all unused, earned vacation leave, holiday leave and compensatory time, to the extent of established maximums. Sick leave balances at the date of layoff shall be restored upon re-employment with the Employer from the recall list. No sick leave shall accrue during the period of time on the recall list / layoff.

#### **8.16 UNEMPLOYMENT CLAIMS**

If laid off employees apply for unemployment compensation benefits, the Employer will not contest the claim and will confirm that the employee was laid off.

### **ARTICLE 9 – WAGES**

#### **9.1 WAGE SCHEDULE**

The monthly rates of pay (base wage) for each job title is reflected in the Police - Commissioned salary schedule. The Specialty and Premium pays are percentage increases that refer back to the salary schedules and are additive to the monthly base rate of pay.

##### **9.1.1 Wage Adjustments**

9.1.1.1 Effective January 1, 2020, the monthly rate of Base Pay shall be increased by three percent (3.0%) wage adjustment through December 31, 2020.

9.1.1.2 Effective January 1, 2021, the monthly rate of Base Pay shall be increased by three percent (3.0%) wage adjustment through December 31, 2021.

9.1.1.3 Effective January 1, 2022, the monthly rate of Base Pay shall be increased by two and one half percent (2.50%) wage adjustment through December 31, 2022.

In addition to the wage adjustments above, market adjustments shall be applied as follows:

January 1, 2020:	3.09%
January 1, 2021:	1.65%
January 1, 2022:	1.64%

In addition to the above increases, a one-time increase of 4% to the base monthly rate shall be applied to the Senior Sergeant and First Class Sergeant on January 1 2020.

9.1.2 Salary Schedules for each year of the CBA are provided in Appendix E.

9.1.3 An accreditation premium of 1% (one percent) will be added to the monthly rate of pay of the employee's current classification and shall be paid monthly for the duration of the contract.

## **9.2 HIRE-IN RATES**

Starting Police Officer positions will be broken down into two categories:

9.2.1 Category I: Officers with prior experience. Prior experience is termed two or more complete years of work as a police officer in a police agency and the successful completion of the Washington State Basic Academy or other acceptable and qualified academy certified by the Washington State Law Enforcement Training Commission. Officers who qualify for this position shall receive starting salary from the wage schedule as follows:

<u>Complete Years Prior Experience</u>	<u>Starting Salary Level</u>
2 years	Police Officer IV
3 years	Police Officer IV
4 or more years	Police Officer III

9.2.2 Category II: Any starting officer who does not have prior experience. Officers in Category II shall receive starting police officer pay for one year before moving into the fourth class police officer position.

### **9.3 SPECIALTY PAY**

9.3.1 K-9 Unit/Dog handler Classification: To compensate for time committed to “at home care” and all other functions related to the care and maintenance of a K-9 unit, the handler shall be compensated as follows:

9.3.1.1 The handler will receive 4% (four percent) premium pay added to the monthly rate of pay of the employee’s current classification.

9.3.1.2 In addition, during duty days, one (1) hour of work time each day is dedicated to the care and maintenance of the K-9 dog which has been determined to be reasonable number of hours for the weekly care of the K-9 dog.

9.3.2 Police Training Officers (PTO) will receive one (1) hour of overtime in addition to regular hours worked for each day that the PTO is engaged in training an officer.

9.3.3 Detectives, including assigned supervisors, shall receive a 4% (four percent) premium added to the monthly rate of pay of the employee’s current classification.

9.3.4 Traffic Officers including assigned supervisors, shall receive a 4% (four percent) premium added to the monthly rate of pay of the employee’s current classification. This premium includes a requirement for Traffic Officers to be on a rotational on-call schedule, provided that the schedule must be set for a minimum of five officer rotation which includes any assigned Corporal and no traffic officer shall be on-call more often than they would be if the traffic unit was fully staffed with five officers/Corporal.

9.3.5 ProAct Officers including assigned supervisors, shall receive a 3% (three percent) premium added to the monthly rate of pay of the employee’s current classification.

9.3.6 Training Unit Officers, including assigned supervisors, shall receive a 2% (two percent) premium added to the monthly rate of pay of the employee’s current classification.

9.3.7 Community Service Unit Officers, including assigned supervisors shall receive a 2% (two percent) premium added to the monthly rate of pay of the employee’s current classification.

### **9.4 LONGEVITY**

9.4.1 Employees shall receive, in addition to their monthly base wage, the following longevity pay added to the monthly rate of pay of the employee's current classification, based upon their years of service for the Kirkland Police Department:

<u>Years of Service</u>	<u>Monthly Premium</u>
5-9 years	2.5%
10-14 years	4.0%
15-19 years	6.0%
20-24 years	8.0%
25 years or more	9.0%

### **9.5 OUT-OF-CLASS PAY**

An Officer assigned to the position of Acting Sergeant shall be paid 5% (five percent) premium pay for hours served in excess of two or more consecutive shifts. A Corporal assigned to the position of Acting Sergeant shall be paid 5% (five percent) premium pay for hours served in excess of eight (8) or more consecutive shifts. If the duration of the assignment is unknown at the onset, a Corporal will receive out-of-class pay after the consecutive shifts have been surpassed retroactive to the first day of the assignment. The Senior Corporal will not be eligible for out-of-class pay for filling in as the acting Sergeant.

### **9.6 EDUCATION INCENTIVE**

Employees with an AA degree and higher from an accredited institution will be eligible for an educational/performance incentive, as set forth below:

#### **Education / Performance Premium**

AA Degree (or 60 semester or 90 quarter college credits)	2%
BA/BS Degree	4.0%
Graduate Degree	4.5%

It is the employee's responsibility to have their diploma or transcripts provided from an accredited institution to the department time-keeper in order to be eligible for the Incentive. The Education Incentive shall be added to the monthly rate of pay of the employee's current classification.

### **9.7 PHYSICAL FITNESS INCENTIVE**

Employees shall be eligible for physical fitness incentives as provided in Appendix A.

### **9.8 SHIFT DIFFERENTIAL**

A premium of one percent (1%) will be added to the monthly rate of pay for employees who are assigned to the patrol night shift.

## **9.9 STRIP SEARCHES**

The Employer acknowledges that strip searches are duties typically performed by corrections officers. In rare occurrences when no corrections officer is available, employees may be asked or required to perform strip searches of City of Kirkland jail inmates. Employees will receive training on conducting strip searches prior to being requested or required to perform a strip search. The Employer must seek volunteers from available fully-commissioned employees before requiring an employee to perform a strip search. As compensation for strip searches, an employee will receive one (1) hour of incentive pay (defined as time and a half) in addition to his or her regular hours worked for each strip search of an inmate, defined as someone needing to be booked or already booked into the City's jail. This section does not apply in patrol and/or investigations cases when a fully-commissioned officer would normally be expected to perform the search (e.g., upon getting a warrant for a strip search as part of an investigation). If the strip search requires a call-out, the Officer will be compensated according to Article 10.2, Call-Back Pay.

## **ARTICLE 10 – OTHER COMPENSATION**

### **10.1 STANDBY PAY**

Employees specifically pre-approved by command personnel to be ready reserve for a specific period of time shall be paid at the overtime rate for actual time worked. Standby shall not be subject to a three-hour minimum. Detectives who are assigned on-call status shall be provided a city take-home vehicle for each day so assigned.

### **10.2 CALL-BACK PAY**

All employees will respond to call-outs unless extenuating circumstances such as illness or other incapacitation prevent the employee from responding.

Full-time employees who are called back to work after leaving the job site shall receive a minimum of three (3) hours' pay at the overtime rate. When an employee is called out between shifts, the time worked between shifts shall be paid at the rate of one and one-half (1½) times the regular rate.

### **10.3 MILEAGE REIMBURSEMENT**

All bargaining unit employees who are required to use their own vehicles for Employer business shall be reimbursed at the mileage rate set by the current policy for all miles driven on such business.

### **10.4 CLOTHING AND EQUIPMENT**

10.4.1 The Employer shall continue to provide necessary uniforms and equipment. Detectives shall be provided an annual allowance for clothing of not less than three hundred dollars (\$300) every six months. Clothing allowance shall be reflected as taxable income.

10.4.2 The Employer shall provide for the cleaning of uniforms for employees. The provisions for the cleaning of street clothing and/or clothing provided under Article 9 Section 1, excluding uniforms, shall be taxable to the employee in accordance with IRS rules.

10.4.3 In addition, the Employer agrees to replace or repair equipment or clothing belonging to the employee, which is damaged in the line of duty. Equipment or clothing shall be construed to mean items owned by the employee, which are required to perform their duties. To be considered for repair or replacement, equipment or clothing damaged in the line of duty must be submitted to the shift supervisor no later than the end of the Officer's next regular duty day, along with a written report and any documentation to support the cost of the damaged item.

## **ARTICLE 11 – HOLIDAYS**

### **11.1 HOLIDAYS**

Regular employees shall be granted the following holidays and other such days as the City Council may establish, without a reduction in pay; non-regular employees shall receive the following holidays without pay:

<u>Holiday</u>	<u>Observed</u>
New Year's Day	January 1
Martin Luther King Day	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September
Veteran's Day	November 11
Thanksgiving Day	Fourth Thursday in November
Day after Thanksgiving	Day after Thanksgiving
Christmas Day	December 25
Two (2) Floating Holidays	At employee's choice

### **11.2 HOLIDAY ELIGIBILITY (This section should be read in conjunction with the attached MOU on the Pilot Holiday Bank Program for this 2020-2022 contract.)**

An employee must be employed for six (6) consecutive months in order to be eligible for their floating holiday. In selecting the Floating Holiday, the employee's choice will be granted, provided that prior approval is given by the immediate supervisor or the Division Commander. The Floating Holiday must be taken during the calendar year, or entitlement to the day will be forfeited.

### **11.3 HOLIDAY OBSERVANCE (This section should be read in conjunction with the attached MOU on the Pilot Holiday Bank Program for this 2020-2022 contract.)** Employees will observe the Holiday on the day the City observes the



respective Holiday. Provided however, Patrol personnel will follow Article 11.1 and the holiday shall be banked and used on a regularly scheduled work day mutually agreeable to the employee and the employer.

**11.4 HOLIDAY ON DAY OFF (This section should be read in conjunction with the attached MOU on the Pilot Holiday Bank Program for this 2020-2022 contract.)**

When the Holiday falls upon the employee's day off, the Holiday shall be banked and used on a regularly scheduled workday mutually agreeable to the employee and the Employer.

**11.5 HOLIDAY COMPENSATION**

Employees who are assigned to work on the Holidays in Article 11.1 designated as the "Actual" date, (excluding Floating Holidays) shall be eligible for overtime compensation at one and one-half (1 ½) times the employee's hourly rate for the number of hours actually worked on the specified holiday. Employees who are called in to work a patrol shift on the Holiday (otherwise not regularly scheduled or required to work) shall be eligible for overtime compensation at two (2) times the employees' hourly rate for the number of hours worked on the specified holiday. Any non-patrol employee called in to work on the Holiday shall have their holiday hours returned to their holiday bank and used in accordance with Section 11.3.

## **ARTICLE 12 – VACATION**

**12.1 VACATION ACCRUAL**

Each regular full-time employee shall accrue vacation leave at the rate of 1/12 of annual vacation per month of service, based on the following schedule:

<u>Years of Employment</u>	<u>Annual Vacation (Working Hours)</u>
1st year of employment	104 hours
2 – 3 – 4 years	104 hours
5 – 6 – 7 years	128 hours
8 – 9 – 10 years	136 hours
11 – 12 – 13 years	144 hours
14 – 15 – 16 years	160 hours
17 – 18 – 19 years	176 hours
20th year and beyond	192 hours

12.1.1 Vacation leave cannot be accrued during any leave without pay, but such leave shall not be considered an interruption of consecutive years of employment for the purpose of determining entitlement to additional vacation days under the foregoing schedule.

12.1.2 An additional eight (8) hours of vacation will be granted in the event a holiday falls within an employee's vacation period. Employees working ten (10)

hour shifts shall be entitled to ten (10) hours of vacation in the event a holiday falls within their vacation period. Employees working twelve (12) hour shifts shall be entitled to twelve (12) hours of vacation in the event a holiday falls within their vacation period.

Vacation leave shall not be accumulated in excess of three hundred (300) hours.

Employees are encouraged to utilize Vacation for appropriate time off and manage vacation requests throughout the year. Any vacation leave accrued in excess of the maximums shall be forfeited and shall not form the basis for any additional compensation. Upon termination of employment for any reason, no payment for vacation accumulation shall exceed two hundred forty (240) hours.

Earned vacation leave may be taken at any time during a period of illness after expiration of sick leave. Taking leave without pay in any month shall result in pro-ration of vacation accruals for that month, calculated upon actual hours worked as a percentage of the total hours of the pay period.

## **12.2 VACATION UPON TERMINATION**

Upon separation of employment, an Employee shall be paid for all unused, earned vacation leave, up to established maximums.

In no case will an employee be paid for accrued vacation upon separation if he/she has been employed by the City for less than twelve consecutive months.

# **ARTICLE 13 – SICK LEAVE**

## **13.1 SICK LEAVE ACCRUAL**

For LEOFF II Members of the Bargaining Unit:

13.1.1 After completion of the one year period, an employee's sick leave pay shall accrue at the rate of ten (10) hours of leave for each full calendar month of the employee's service in that classification. Any such leave accrued in any year shall be accumulative for succeeding years to a maximum of 1010 hours.

## **13.2 SICK LEAVE USAGE**

Sick leave shall be available to employees after they have worked for a minimum of thirty (30) consecutive calendar days after the most recent date of hire.

13.2.1 Consistent with the confidentiality provisions of the Americans with Disabilities Act, and upon good cause, a health care provider's statement may be required.

13.2.2 Upon appointment as a police officer, an employee shall be credited with 96 hours of sick leave. If an employee terminates before the unearned sick leave hours used are repaid, the unearned sick leave time taken will be deducted from the final paycheck.

13.2.3 Conversion of Accrued Sick Leave cash out to Retiree Medical Account: Upon retirement from City service, or as a result of a medical condition disqualifying from service, or after reaching age 50 and leaving City service, or upon death of an employee, the employer shall make contributions into a qualifying trust or Retiree Medical Account, in an amount equal to fifty percent (50%) of the cash value of employee's accrued sick leave balance at the time of retirement (accrued sick leave hours x regular rate of pay x 50%) and shall not exceed Eleven Thousand Five Hundred Dollars (\$11,500). The trust fund will be established in accordance with applicable federal and state laws, and the City shall contribute the monies on a pre-tax basis. The monies contributed to the trust fund shall only be used for retiree insurance premiums or as otherwise provided by law. The City will also contribute a biannual amount of \$300 for each individual member to the Retiree Medical Account.

For the purpose of this Article, retirement shall be defined as either normal service retirement or voluntary termination in good standing after twenty (20) years of continuous service with the Kirkland Police Department.

### **13.3 SHARED LEAVE**

The Employer may permit an employee to receive vacation or compensatory time consistent with the current Shared Leave policy.

### **13.4 COORDINATION – WORKERS' COMPENSATION**

Workers' Compensation Supplement (LEOFF II). The City will provide a disability leave supplement for LEOFF II employees injured in the line of duty when such injury is directly related to the inherent dangers associated with employment in law enforcement. The supplement shall go into effect when an employee becomes eligible for State workers' compensation benefits and shall equal the difference between the State workers' compensation monthly payment and the employee's base monthly salary. This pay supplement shall continue as long as the employee is off work and receiving workers' compensation benefits.

In no event, shall the combination of Workers' Compensation, long term disability benefit, and this Workers' Compensation supplement exceed one hundred percent (100%) of the employee's regular salary.

While the Workers' Comp Supplement is governed by rules established and administered by DRS, employees are advised of the following current DRS practices, which are subject to change by DRS:

During the first 48 hours of disability leave, the wages are reported as L & I (60%) and Sick Leave (40%). For the next six months, disability time is reported as L & I (60%), Sick Leave (20%) and Supplementary Disability (20%) as per RCW 41.04.510. The remaining disability time is reported as L & I (60%), Sick Leave (40%). Once accrued leave has been exhausted, the employee's obligation to turn Worker's Compensation checks over to the City shall cease and the City's obligation of salary to the employee shall be discontinued until the employee is released by the treating physician as fit for duty.

Time-loss payment from L & I are not subject to federal income or Social Security taxes. The Department of Retirement Systems considers 80% (L & I payment and supplemental disability) of your time not reportable hours for service credits. Employees have the option to request the reestablishment of these service credits by submitting a written request to DRS.

### **13.5 FAMILY MEMBER**

Sick leave may be utilized as above for illness in the immediate family requiring the employee's attendance.

Immediate Family shall mean persons related by blood, marriage, or legal adoption in the degree of relationship of grandparent, parent, wife, husband, brother, sister, child, grandchild, or domestic partner (as defined by Employer Policy) and other persons with the approval of the City Manager or designee.

## **ARTICLE 14 – LEAVES OF ABSENCE**

### **14.1 IN GENERAL**

Leave of absence requests shall not be unreasonably denied. All leaves are to be requested in writing as far in advance as possible.

As appropriate for the type of leave requested, paid leave accruals will be utilized prior to unpaid leave, unless otherwise provided for in this Agreement.

Leave does not accrue nor may it be used until the first day of the pay period in which it is earned (no "negative" leave use during the period in which it is earned).

### **14.2 JURY DUTY/COURT**

An employee who is required to serve on Jury duty shall be authorized leave with pay, less any amount received from the court for such service, up to two (2) weeks.

### **14.3 MILITARY LEAVE**

All regular employees shall be allowed military leave as required by RCW 38.40.060 and as interpreted by the Court. This provides for twenty one (21) working days of military leave per year (October 1 through September 30).

#### **14.4 BEREAVEMENT**

Employees shall be entitled to four (4) days Bereavement Leave without loss of compensation upon the death of a member of the Employee's immediate family. For the purposes of this contract, immediate family shall be defined as stipulated in Article 13.5. All Bereavement Leave must be communicated through the Chain of Command to ensure applicability and make sure staffing concerns are addressed. Additional time off as may be required for travel or other circumstances may be granted if approved in advance by the employer. Such additional time shall be deducted from an accrued leave of the employee's choice.

#### **14.5 MAINTENANCE OF SENIORITY**

The Employer shall adjust the employee's anniversary date to reflect any period of unpaid leave of thirty (30) continuous days or more. Seniority shall continue to accrue and the employee's anniversary date shall not be adjusted for periods of legally protected leave, such as FMLA or military leave.

#### **14.6 LEAVE WITHOUT PAY**

Unpaid Leave of Absence shall be governed by existing City policies.

#### **14.7 FAMILY LEAVE FMLA**

Family Medical leave will be allowed consistent with State and Federal law and with existing City policies.

Under the terms of the Family and Medical Leave Act of 1993 (FMLA) and the state law, upon the completion of one (1) year of employment, any employee who has worked at least 1250 hours during the prior twelve (12) months shall be entitled to up to twelve (12) weeks of leave per rolling year for the birth, adoption or placement of a foster child; to care for a spouse or immediate family member with a serious health condition; or when the employee is unable to work due to a serious health condition. For purposes of this Article, the definition of "immediate family" will be found in Article 13.5.

The Employer shall maintain the employee's health benefits during this leave. If the employee fails to return from leave for any reason other than the medical condition initially qualifying for the FMLA absence, the Employer may recover from the employee the insurance premiums paid during any period of unpaid leave.

If a leave qualifies under both federal and state law, the leave shall run concurrently. Ordinarily, the employee must provide thirty (30) days written advance notice to the Employer when the leave is foreseeable. The employee should report qualifying events as soon as known and practicable.

The combination of FMLA and other types of leave(s) is not precluded and, in fact, leave utilizations are to be concurrent, with the intent that appropriate paid accruals are to be utilized first, consistent with other Articles of this Agreement. The Employee may elect to retain up to forty (40) hours of sick leave and up to forty (40) hours of vacation (prorated by their FTE) for use upon return to work, consistent with the process identified

in the personnel policy. Upon the employee's election, any accrued comp time may be utilized prior to any period of unpaid leave.

#### **14.8 MATERNITY LEAVE**

Consistent with WAC 162-30-020, the Employer will grant a leave of absence for a period of temporary disability because of pregnancy or childbirth. This may be in addition to the leave entitlements of FMLA.

This leave provides female employees with the right to a leave of absence equivalent to the disability phase of pregnancy and childbirth. There is no eligibility requirement, however the Employer has no obligation to pay for health insurance benefits while on this leave (unless utilized concurrent with FMLA).

Leave for temporary disability due to pregnancy or childbirth will be medically verifiable. There is no limit to the length of the disability phase, except for the right for medical verification and the right of second opinion at the employer's expense. At the end of the disability leave, the employee is entitled to return to the same job or a similar job of at least the same pay. Employees must use their accrued vacation and sick leave, if any, during the leave period and, at their election, any accrued comp time, consistent with the retention provision as provided in Article 14.7. Once this paid leave is exhausted, the employee's leave may be switched over to unpaid leave.

#### **14.9 INCLEMENT WEATHER**

Employee rights and responsibilities during severe weather and emergency or disaster conditions are covered by the current Inclement Weather Policy of the Employer. The goal shall be to continue to provide essential Employer services, consistent with public and employee safety and emergency operations priorities. Law enforcement is critical to these essential services and the expectation is that employees will report to duty as scheduled.

### **ARTICLE 15 – HEALTH & WELFARE**

#### **15.1 MAINTENANCE OF BENEFITS**

Medical Insurance - The Employer will offer a self-insured High Deductible Health Plan (HDHP) administered by First Choice (or its equivalent) with coverages illustrated in Appendix C. The Employer will also offer a fully-insured HMO option through Kaiser Permanente (or its equivalent). During the duration of this agreement the Employer shall make every effort to maintain substantially equivalent benefits.

The Guild shall take part in and have an appointed representative on the Whole Health Committee. The purpose of the Committee is to monitor and evaluate the benefits costs and the plan designs.

The Committee representative shall have no authority to negotiate on behalf of the Guild any changes to be scheduled or content of benefit plans. The Employer shall continue

with collective bargaining obligations with the Guild, as currently exist under law for any such changes.

Participation in benefits shall be consistent with Article 15.2 of this Agreement.

### **15.2 HEALTH AND LIFE INSURANCE**

Medical Insurance - The Employer shall pay each month one hundred percent (100%) of the premium necessary for the purchase of Employee coverage and one hundred percent (100%) of the premium necessary for the purchase of dependent coverage under the City of Kirkland self-insured HDHP Plan or Kaiser Permanente (or its equivalent) for each Employee of the bargaining unit.

Dental and Vision - The Employer shall pay each month one hundred percent (100%) of the premium necessary for the purchase of Employee coverage and one hundred percent (100%) of the premium necessary for the purchase of dependent coverage under Washington Dental Services (or its equivalent) or Willamette Dental (or its equivalent) and Vision Service Plan (or its equivalent).

Life Insurance - the Employer shall pay each month one hundred percent (100%) of the premium necessary for the purchase of Employee term life insurance coverage that has a policy value of two (2) times the annual base rate of pay of the Employee, up to a guaranteed issue amount of \$250,000. The Employee is responsible for any taxes associated with this benefit.

15.2.1 The City agrees to continue payment of the City portion of the premium for the spouse and eligible dependents medical and dental premiums for a period of twelve (12) calendar months following the death of an active Police Officer whose death is the direct result of injuries incurred in the line of duty. In the event the surviving spouse remarries within that twelve (12) month period, the City payment of premiums shall cease with payment of the premium for the month in which the marriage occurs. The parties agree this provision shall specifically not apply to presumptive illnesses, which cause the death of the officer.

### **15.3 FLEXIBLE SPENDING ACCOUNT – FSA**

The Employer participates in a special program under the provisions of IRS Section 125. Employees may voluntarily elect to participate in the reimbursement program to pay medical or dependent care expenses with pre-tax dollars. The Employer makes no contribution, makes no assurance of ongoing participation, and assumes no liability for claims or benefits. The City and the Union agree to reevaluate this benefit pending Cadillac Tax liability in the future.

Contributions to the flexible spending account can be made by the employee as a payroll deduction subject to the rules and limitations contained within the Internal Revenue Code.

#### **15.4 RETIREE MEDICAL**

Upon retirement from the City, LEOFF II bargaining unit members (Members) who have been employed with the City of Kirkland for five or more consecutive years prior to retirement may participate in the City's self-insured HDHP plan at the rate established by the City for retirees or the City's Kaiser Permanente retiree plan at the retiree rate or HMO retiree plan at the retiree's own expense. Such participation is available only if the Member has met the retirement eligibility requirements for LEOFF II. Members may elect coverage for their eligible spouse/domestic partner and any eligible dependents. Coverage under this program ends when the Member becomes eligible for Medicare or chooses to be covered by another employer.

#### **15.5 RETIREMENT**

Pensions for employees and contributions to pension funds will be governed by applicable Washington State Statutes in relation thereto in existence during the contract period.

#### **15.6 HEALTH REIMBURSEMENT ACCOUNT – HRA (VEBA)**

The Employer will make contributions to a HRA (VEBA) in the amount of \$1200 per year for employee only coverage or \$2400 per year for family coverage if the employee enrolls in the City of Kirkland HDHP. These contributions are in addition to those in Article 13.2.3 and neither contribution requires participation in wellness activities. Contributions to the HRA (VEBA) will be made by the Employer (as outlined in Appendix D) and are subject to the rules and limitations contained within the Internal Revenue Code.

#### **15.7 EMPLOYEE HEALTH CENTER**

The Employer will contract with a vendor of their choosing to open and operate an On/Near-Site Health Center. The Health Center will be open to employees and their dependents who are covered under the Employer's Medical Plan. Services provided at the Health Center, per the contract with the vendor, will be at no cost to the employee. The Employer has full discretion to negotiate with the vendor on services provided, hours of operation, staffing, covered prescriptions, location, and all other stipulations in the contract with the vendor. The Employer reserves the right to terminate the contract with the vendor and discontinue offering this benefit to employees and their dependents at any time. If, during the term of the Agreement such termination should take place, either party may re-open Article 15 for bargaining.

#### **15.8 PROFESSIONAL HEALTH SERVICES**

The Employer will contract with a vendor of their choosing to provide Professional Health Services. The Professional Health Services vendor will be open to Employees, their spouses/domestic partners and children who are covered under the Employer's First Choice HDHP. Services provided by Professional Health Services, per the contract with the vendor, will be at no cost to the employee. The Employer has full discretion to negotiate with the vendor on services provided and all other stipulations in the contract with the vendor. The Employer reserves the right to terminate the contract with the



vendor and discontinue offering this benefit to Employees and their dependents at any time.

## **ARTICLE 16 – TRAINING**

### **16.1 TRAINING**

Upon fourteen (14) days advance notice by the employer, an employee's shift may be modified for one or more weeks to four (4) ten (10) hour days or four (4) twelve (12) hour days for in-service training, with a preference for a 4-10 training schedule. Overtime shall be compensated for in-service training when hours exceed the employee's regular scheduled workweek.

An employee attending full day or longer training courses shall be paid for their normal shift. Attendance at optional special training classes outside scheduled training hours shall not be compensated for unless specifically pre-approved by command staff. Probationary employees who are in training may be transferred to their next duty assignment in accordance with Section 6.1.

### **16.2 TRAINING REIMBURSEMENT**

Compensation associated with training or representation of the Employer on official business shall be consistent with the current policy and the Fair Labor Standards Act (FLSA) and WAC 296-128-500. Reimbursement of associated costs shall be consistent with City Policy.

## **ARTICLE 17 – LABOR/MANAGEMENT COMMITTEES**

### **17.1 PURPOSE AND COMPOSITION OF COMMITTEES**

The Executive Employee Relations Committee shall meet as needed at the request of either party, provided that five (5) working days notice of the meeting is given to discuss and resolve issues of continuing importance to the Guild and/or Employer.

### **17.2 COMPENSATION**

All meeting time spent by members of the joint Labor-Management Committee will be considered time worked if during duty hours and will be paid at the appropriate regular rate of pay.

## **ARTICLE 18 – HEALTH & SAFETY**

### **18.1 SAFE WORKPLACE**

The Employer is responsible for maintaining a safe and healthful workplace. The Employer shall comply with all federal, state, and local laws applicable to the safety and health of its employees.

Recognizing that danger is an inherent aspect of law enforcement work, Employees who have a reasonable basis for believing the assignment would constitute a danger to their health and safety, should report the concern. The employee shall immediately contact a supervisor who shall make a final determination with regard to safety. No directive shall be delayed pending such determination.

All on-the-job injuries, no matter how slight, must be reported. Employees must immediately notify their supervisor if they are unable to work because of a work-related injury or illness.

#### **FIREARMS**

No police officer shall be required to work without a firearm unless mutually agreed to the contrary.

#### **18.2 HEALTH & SAFETY PLAN**

The Employer shall develop and follow written policies and procedures to deal with on-the-job safety and shall have effective safety and accident prevention plans in conformance with state (WAC 296-800) and federal laws.

#### **18.3 DRUG FREE WORKPLACE**

The City and the Guild agree to abide by the City of Kirkland Police Department Substance Abuse Policy that is attached as Appendix B.

#### **18.4 WORKPLACE VIOLENCE**

The employer is committed to employee health and safety. Workplace violence, including threats of violence by or against a City employee, will not be tolerated and should be immediately reported whether or not physical injury occurs, except those in the course and performance of law enforcement duties.

### **ARTICLE 19 – GRIEVANCE PROCEDURE**

#### **19.1 GRIEVANCE DEFINED**

A grievance means a claim or dispute by a grieved employee, group of grieved employees, or the Guild Executive Board with respect to the interpretation or application of the provisions of this agreement.

19.1.1 Reference to days in this Article shall refer to calendar days.

#### **19.2 GRIEVANCE PROCEDURE**

Notification: In the event that an employee believes that the City is operating in violation of this agreement, the employee may notify his immediate supervisor.

19.2.1 Filing Formal Grievance: Within fourteen (14) days after the employee first becomes aware or reasonably should have become aware of the violation, a written grievance shall be submitted to the Lieutenant. This notification must be signed by the

employee and must state the issue, section of the agreement violated, facts giving rise to the grievance, and the remedy sought. This notification will be forwarded through the chain of command and will be designated as receipted, based on the date stamp of the authority designated at the appropriate step of the grievance.

19.2.2 It is agreed that taking a matter to a hearing before the Civil Service Commission constitutes an election of remedies and a waiver of any duty arising under this agreement to enter into binding arbitration. Similarly, upon the subsequent filing of an action as described above, a grievance, previously filed, shall be deemed withdrawn.

19.2.3 Step 1: The Lieutenant shall respond in writing within fourteen (14) days. If the action taken by the Lieutenant corrects the alleged violation to the satisfaction of the presenting party, the grievance shall be deemed resolved. In the event the presenting party(s) do not feel the alleged violation has been corrected to their satisfaction, the presenting party(s) shall proceed to Step 2 within seven (7) days.

19.2.4 Step 2: The Captain shall respond in writing within fourteen (14) days of receipt and date stamp of the grievance. If the action taken by the Captain corrects the alleged violation to the satisfaction of the presenting party, the grievance shall be deemed resolved. In the event the presenting party(s) does not feel the alleged violation has been corrected to their satisfaction, the presenting party(s) shall proceed to Step 3 within seven (7) days.

19.2.5 Step 3: Upon receiving a written grievance from an employee or the Guild, the Chief of Police shall attempt to resolve the grievance within fourteen (14) days. If the Chief of Police is unable to resolve the grievance to the satisfaction of the presenting party(s), the grievance, together with all other pertinent materials, shall be presented to the City Manager, and the presenting party shall be notified in writing. In the event the presenting party(s) does not feel the alleged violation has been corrected to their satisfaction, notice may be given and the grievance shall proceed to Step 4 within seven (7) days.

19.2.6 Step 4: Upon receiving a written grievance, the City Manager or designee shall attempt to resolve it within thirty (30) days. If the grievance is not resolved by the City Manager or designee, the presenting party(s) will be notified in writing. In the event the Guild does not feel the alleged violation has been corrected to their satisfaction the grievance may, within thirty (30) calendar days, be referred to arbitration by the Guild.

19.2.7 Binding Arbitration: If agreement cannot be reached as to the arbitrator within fourteen (14) days of notice of the desire to proceed, the parties shall jointly request the American Arbitration Association to provide a panel of eleven (11) arbitrators from which the parties may select one. Within thirty (30) days after receipt of the panel of arbitrators, the representatives of the Employer and the Guild shall alternately eliminate the name of one person from the list until only one name remains. The person whose name was not eliminated shall be the arbitrator. The party requesting arbitration shall have thirty (30) days to contact the arbitrator to obtain dates for the hearing. It shall be

the function of the arbitrator to hold a hearing at which the parties may submit their cases concerning the grievance. The arbitrator shall render their decision based on the interpretation and application of the provisions of this agreement within thirty (30) days after such hearing. The decision shall not add to, modify, or delete any provision of the agreement; and it shall be final and binding upon both parties to the grievance provided the decision does not involve action by the Employer, which is beyond its jurisdiction. The expenses of the arbitration hearing shall be borne equally by the Employer and the Kirkland Police Guild. Each party shall be completely responsible for all costs of preparing and presenting its own case, including compensating its own representatives and witnesses. If either party desires a record of the proceedings, it shall solely bear the cost of producing such a record. The time limits in this Article may be extended by mutual agreement of the parties.

### **19.3 GUILD/EMPLOYER GRIEVANCE**

Either the Guild or the Employer may initiate a grievance.

The Employer may not grieve the acts of individual employees, but rather, only orchestrated acts or actions of authorized representatives believed to be in conflict with this Agreement. An Employer grievance will not be subject to Arbitration and may only go to mediation upon mutual agreement.

The Guild may initiate a Grievance at Step 2 anytime that it involves a group of employees from different workgroups. Such grievances may be referred to mediation services by mutual agreement prior to Arbitration.

### **19.4 SCHEDULE OF MEETINGS**

Consistent with Article 4.8, grievance investigations and meetings on duty time shall be subject to prior notice and approval. If authorization cannot be immediately granted, the Employer will arrange to allow investigation of the grievance at the earliest possible time.

## **ARTICLE 20 – NO STRIKE / NO LOCKOUT**

### **20.1 NO STRIKE / NO LOCKOUT**

It is understood and agreed that the services performed by City employees included in this Agreement are essential to the public health, safety, and welfare. Therefore, the employees agree that there shall be no strikes, slowdowns, or stoppage of work, or any interference with the efficient operation of the Police Department. Violation of this article shall subject the employee to disciplinary action or discharge.

The Employer shall not lockout any employee during the life of this Agreement.

## **ARTICLE 21 – MANAGEMENT RIGHTS AND RESPONSIBILITIES**

### **21.1 MANAGEMENT RIGHTS AND RESPONSIBILITIES**

Any and all rights concerned with management and operation of the Department are exclusively that of the Employer unless otherwise provided by the terms of this agreement. The Employer has the authority to adopt rules for the operation of the department, provided such rules are not in conflict with the provisions of this Agreement or with applicable law. The Employer has the right, among other actions, to discipline or discharge for cause, to assign duties customarily performed by police officers, to determine the required number of personnel, to determine new work methods, to contract for goods and services, and to perform all of the functions not otherwise expressly limited by this Agreement or other applicable law.

Nothing in this agreement is intended to, nor shall be deemed to be in conflict with RCW 41.12 (Civil Service for City Police), and the Kirkland Civil Service Commission Rules and Regulations. Nothing herein shall be construed to be a waiver of the Guild's right to engage in collective bargaining or to affect the enforceability of any provisions of this contract.

### **21.2 INSURANCE**

Consistent with existing Kirkland Municipal Code provisions, the City shall secure and maintain with responsible insurers such false arrest, malicious prosecution and liability insurance as is customarily maintained by public bodies with respect to the operation of police departments, all to the extent that such insurance can be secured and maintained at reasonable costs. The coverage to be so provided shall, to the extent available, be substantially equal to such coverage provided by the City immediately prior to the effective date of this agreement.

Such insurance shall include coverage for punitive damage awards made against an officer resulting from conduct found to be within his or her scope of duty or, the City may self-insure. Should a damage award result from conduct found to be outside the officer's scope of duty, including but not limited to punitive damages, the City and its insurer will not be responsible for payment of that award. Each allegation or cause of action for conduct complained of will be analyzed separately in determining whether the conduct was within or outside the officer's scope of duty for the purposes of this Article. A determination by the City Manager that conduct was outside of the officer's scope of duties is final but may be reviewed only by an action in King County Superior Court.

## **ARTICLE 22 – GENERAL PROVISIONS**

### **22.1 SAVINGS CLAUSE**

If any provision of this agreement shall be held invalid by operation of law, or any tribunal of competent jurisdiction, or if compliance or enforcement of any provision should be restrained by such tribunal pending final determination as to its validity, the remainder of this agreement shall not be invalid and will remain in full force and effect. Provided that should either party so request, the parties shall enter into immediate

collective bargaining negotiations for the purpose of arriving at a mutually satisfactory replacement of such invalid provision.

### **ARTICLE 23 – ENTIRE AGREEMENT**

#### **23.1 DURATION CLAUSE**

Except as otherwise stated herein, this agreement shall become effective on signature by both parties but not earlier than January 1, 2020 through December 31, 2022. In the event negotiations for a new agreement have not been completed by the termination date of this agreement, the provisions contained in this agreement shall remain in effect until the conclusion of the negotiations for a new agreement.

#### **23.2 ENTIRE AGREEMENT**

This agreement expressed herein in writing constitutes the entire agreement between the parties and there shall be no amendments, except in writing and with the agreement of both parties.

### **SIGNATURES**

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2020

CITY OF KIRKLAND;

KIRKLAND POLICE GUILD;

By  
Kurt Triplett, City Manager

By \_\_\_\_\_  
Mike Lisenby, President

By \_\_\_\_\_  
Russell Kaufman, Secretary

APPROVED AS TO FORM:

\_\_\_\_\_  
William Evans, Assistant City Attorney

Date \_\_\_\_\_

**Appendix “A”  
to the  
AGREEMENT  
by and between  
City of Kirkland  
and  
The Kirkland Police Guild  
(Representing the Law Enforcement Commissioned Employees)**

**PHYSICAL FITNESS INCENTIVE PROGRAM**

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This Appendix is supplemental to the AGREEMENT by and between the CITY OF KIRKLAND, WASHINGTON, hereinafter referred to as the “Employer”, and the Kirkland Police Guild - Commissioned, hereinafter referred to as “Guild.”

A.1 A mutual goal of the Employer and the Guild is to encourage good physical fitness. The parties agree that an acceptable level of physical fitness is an essential function of the job of a Police Officer. The purpose of this program is to promote the physical capability of the commissioned members of the Kirkland Police Department and to enhance the members’ general physical fitness level.

A.2 Pursuant to Article 9.7 of the Collective Bargaining Agreement between the parties, the information contained in this appendix shall serve as the rules and regulations of a physical fitness program and the procedures by which the program shall be administered.

A.3 Both parties agree that participation in the physical fitness program is voluntary. The Employer and the Guild encourage participation in the fitness program by members. Training, exercising, and general conditioning in preparation to take the physical fitness test shall be on an individual and voluntary basis without compensation. The Employer agrees to offer the fitness twice per year in 2020, 2021, and 2022. Employees assigned to SWAT are required to participate and pass this department test in order to qualify for the fitness incentive pay. The test will be conducted during work hours in conjunction with the spring and fall KPD in-service training block. This on-duty status during the testing process shall protect members against loss of pay for time off work due to any injury sustained while participating in the fitness test. Members who wish to participate in the fitness test shall be required to sign the general liability waiver set forth in A.8.

A.4 The fitness test shall be comprised of three core components—push-ups, sit-ups, and 1.5 mile run. This “Cooper” test is modified for age/gender and is set forth in Section A.7 of this Appendix. The components are generally designed to measure aerobic/cardiovascular endurance, and upper/lower body muscular strength. A member

must satisfy the standards of each test component in order to qualify for the monetary incentive; i.e., failing one component of the test constitutes overall failure. A member shall be allowed one opportunity to pass the various fitness test components during the test.

A.5 The cycle year for the physical fitness incentive program is December 1<sup>st</sup> – November 30<sup>th</sup>.

A.6 In 2007, the fitness test was offered once in the fall. Members who successfully passed the fitness test received an incentive pay of \$550 as a lump-sum payment on the November 23rd paycheck. In January, 2008, the \$550 converted to a physical fitness incentive equal to one (1%) percent of the monthly rate of base pay for remainder of the cycle year. After that time, the test will be offered twice each cycle year and it is the individual employee's responsibility to be trained and available for one of the scheduled opportunities. Individual tests will not be arranged. In this manner, a commissioned employee would have two opportunities (spring and fall) to successfully pass the test, which would ensure the 1% fitness incentive for the following cycle year. An employee who fails to pass either test shall be eligible to receive the 1% up until November 30<sup>th</sup>. He/she may take the test the following year, but upon passing, the 1% incentive pay shall be effective at the commencement of the next cycle year, December 1<sup>st</sup>.

#### A.7 **Physical Fitness Test Description**

The physical fitness test shall be comprised of the following components. The results of these tests shall be made available to the Employer.

<b>Employee Age:</b>	<b>20 – 29</b>	<b>30 – 39</b>	<b>40 – 49</b>	<b>50 – 59</b>
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<b><i>1.5 mile run</i></b>				
Male	12:51	13:36	14:29	15:26
Female	15:26	15:57	16:58	17:54

<b><i>Push-ups (1 minute)</i></b>				
Male	29	24	18	13
Female	15	11	9	5
Female (modified)	23	19	13	12

- The body should be straight and the hands about shoulder width apart
- The body should remain rigid throughout the down phase; with the chest coming to within 3 inches of the floor. (The tester can place a foam block on the floor beneath the participant's chest)
- From the down phase, the participant must return to the up position with the arms straight
- The participant is only permitted to rest in the up position
- The total number of push-ups which the participant performs in 1 minute are counted



- Females may choose to use the modified push-up (knees on ground with feet up in the air)

<i>Sit-ups (1 minute)</i>				
Male	38	35	29	24
Female	32	25	20	14

- The participant lies on the back with the knees flexed at a right angle. The hands, with fingers interlocked, are placed at the back of the neck.
- A partner sits on the participant's insteps with his/her hands placed behind the subject's calf muscles to keep the heels in contact with the floor
- The participant sits up to touch the knees with the elbows
- Without pause, the participant returns to the starting position just long enough for his/her head (not just shoulder blades) to touch the mat and immediately sits up again

#### A.8 Physical Fitness Test General Liability Waiver Form

## **City of Kirkland**

### **Kirkland Police Department—Fitness Ability Test**

I hereby acknowledge that the format of the City of Kirkland Fitness Ability Test has been explained to me and I understand that the purpose of this test is to measure my fitness ability in my current position as a commissioned Police Officer for the City of Kirkland.

I also acknowledge that participation in the Fitness Ability Test is totally voluntary and, while I may be permitted to participate in the test on compensable duty time, I am under no compulsion or directive to do so.

I certify that to the best of my knowledge, I am fit to undertake the activities involved in the test and have no physical impairment or medical condition which would preclude my completion of the test. I have had the opportunity to consult my personal physician and have done so or chosen not to. I understand that the tests are strenuous and hold the potential for serious injury or death. I understand that I may stop the test at any time and that the persons administering the test may discontinue it at any time they have a reasonable basis for belief that continuation of the test could be detrimental to my health. Discontinuance may prevent successfully passing the test, consistent with Section A.4.

I assume full and complete responsibility for undertaking the test and I hereby release the City of Kirkland, its officers, employees, and agents from any responsibility or liability for any loss or damage arising from the bodily injury relating to my participation in the test, except for any loss or damage arising solely from the negligence of the City of Kirkland, its officers, employees, or agents.

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Name (print)

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Signature

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Date

**Appendix “B”  
to the**

**AGREEMENT**  
**by and between**  
**City of Kirkland**  
**and**  
**The Kirkland Police Guild**  
**(Representing the Law Enforcement Commissioned Employees)**

**SUBSTANCE ABUSE POLICY**

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**POLICIES AND PROCEDURES FOR**  
**DRUG/ALCOHOL TESTING AND TREATMENT**

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**These policies and procedures have been agreed to by the parties and shall become a part of the current labor agreement between the City of Kirkland and the Police**

**Guild. All applicable articles of the contract shall apply to these policies and procedures.**

**A. PURPOSE**

The City of Kirkland recognizes that employees are our most valued resource. The goal of this policy is to ensure a substance abuse free workplace providing prevention, training and rehabilitation for employees. In order to protect the health, welfare, and safety of its employees, and the citizens whom they serve, the following policy regarding substance abuse in the work place is adopted.

**B. POLICY**

1. It is the policy of the City of Kirkland to provide an alcohol and drug-free workplace for its employees.
2. The City's philosophy on substance abuse is to emphasize prevention, training, rehabilitation, and recovery from substance abuse. Counseling and support will be made available through an Employee Assistance Program, and the employees' right to privacy will be respected at all times.
3. It is the responsibility of the City and the Guild to preserve and protect public trust, public safety, and fitness for duty.
4. It is the responsibility of all employees to report for duty and be able to perform their jobs safely and effectively, unimpaired by drugs, alcohol, or any other intoxicating substance.
5. The possession, manufacture, use, distribution, or sale of alcohol, unlawful drugs or drug paraphernalia on City premises or while on duty is prohibited.

**C. APPLICABILITY**

This policy applies to all bargaining unit employees through the rank of Sergeant.

**D. DEFINITIONS**

For purposes of this policy, the following terms have the meanings indicated:

1. Alcohol use means the consumption of any beverage, mixture, or preparation, including any medication, containing alcohol.
2. Conviction means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of Federal, State, or City drug laws.
3. Counseling means participation in a substance abuse treatment or rehabilitation program provided through the City of Kirkland's Employee Assistance Program (EAP).

4. Criminal drug statute means a criminal law involving the manufacture, distribution, dispensing, use, or possession of any controlled substance.
5. Medical Review Officer (MRO) is a licensed physician selected by joint agreement between the parties to receive positive drug test results from the laboratory, analyze and interpret the results, and report to the employer those results as outlined in Section I of this policy.
6. Prohibited Substances are those substances, whose dissemination is regulated by law, including, but not limited to narcotics, depressants, stimulants, hallucinogens, cannabis, and alcohol. For the purpose of this policy, substances that require a prescription or other written approval from a licensed health care provider or dentist for their use shall also be included when used other than as prescribed. The drugs and/or their metabolites that are included in these categories are as follows:
  - a) marijuana
  - b) cocaine
  - c) opium or opiates
  - d) phencyclidine (PCP)
  - e) amphetamines
  - f) or methamphetamines
7. Reasonable suspicion means facts and circumstances sufficiently strong to lead a reasonable person to suspect that the employee is under the influence of drugs and/or alcohol which is corroborated by a second individual other than the designated Guild representative.
8. Representation mean Employee's right to Guild or legal representation at testing sites and at any subsequent disciplinary action related to implementation of substance abuse procedures.
9. Substance abuse means the use of a substance, including medically authorized drugs other than as prescribed for the user, which impairs job performance or poses a hazard to the safety and welfare of the employee, the public or other employees.
10. Substance Abuse Professional (SAP) is a licensed physician, psychologist, social worker, employee assistance professional, or addiction counselor certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission with knowledge of and clinical experience in the diagnosis and treatment of drug and alcohol-related disorders.

11. Unreasonable delay means a delay of the testing procedure for a period of time, as defined by the collection site or laboratory personnel, which would render the test useless or inaccurate.

## **E. EDUCATION**

Pursuant to the provisions of the Drug-Free Workplace Act of 1988, the City will establish an education and training program to assist employees to understand and avoid the perils of drug and alcohol abuse. The City will use this program in an ongoing educational effort to prevent and eliminate drug and alcohol abuse that may affect the workplace.

The City's program will inform employees about:

- a) The dangers of drug and alcohol abuse in the workplace;
- b) The City's policy of maintaining a drug- and alcohol-free workplace;
- c) The availability of drug and alcohol treatment, counseling and rehabilitation programs; and
- d) The penalties that may be imposed upon employees for drug and alcohol abuse violations.

As part of its program, the City shall provide educational materials that explain the City's philosophy regarding drug and alcohol use, requirements of applicable regulations, and the City's Substance Abuse policy and procedures. Employees shall be provided with information concerning:

- a) The effects of alcohol and drug use on an individual's health, work and personal life;
- b) Signs and symptoms of an alcohol or drug problem; and
- c) Available methods of intervening when an alcohol or drug problem is suspected, including confrontation and/or referral to management.

In addition to the training above, the City shall provide training to supervisors who may be asked to determine whether reasonable suspicion exists to require an employee to undergo drug and/or alcohol testing. The supervisory training shall include training on alcohol abuse and drug use. This training shall cover the physical, behavioral, speech, and performance indicators of probable alcohol abuse and drug use. Supervisors who have not received the initial training described above will not be asked to determine whether reasonable suspicion exists to initiate drug/alcohol testing. However, these supervisors may request another supervisor who has undergone this training to make the determination

## **F. EMPLOYEE RIGHTS AND RESPONSIBILITIES**

1. The City shall not require an employee to undergo a drug and/or alcohol test unless there is reasonable suspicion to indicate the employee is under the influence of a substance which causes the employee to pose a hazard to the safety of the employee, the public, or other employees. However, an

employee may be required to undergo a re-examination drug and/or alcohol test as provided in Section J.2. of this policy.

2. It is the employee's responsibility to report for duty, able to perform his/her job safely and effectively, unimpaired by drugs, alcohol, or any other intoxicating substance.
3. Employees are responsible for:
  - a) Obtaining from their health care provider adequate information about the effects of prescription medication on job performance; and
  - b) Promptly notifying his/her supervisor of same; OR
  - c) Promptly notifying his/her supervisor of the effects on job performance of over-the-counter medication being taken.
4. Employees are prohibited from possessing, manufacturing, using, distributing, or selling alcohol, controlled substances or drug paraphernalia on City premises or while on duty. For purposes of this policy, "on duty" time includes meal and break periods during the work day.
5. Employees are encouraged to request assistance with drug use and/or alcohol abuse problem(s), with the understanding that a voluntary request for assistance will not be used as the basis for disciplinary action. However, a request for assistance shall not be used to exempt employees from job performance requirements.
6. In accordance with the Drug-Free Workplace Act of 1988, an employee who is convicted of a violation of a criminal drug statute shall notify the City's Human Resources Director no later than 5 days after such conviction. For purposes of this policy, a criminal drug statute means a criminal law involving the manufacture, distribution, dispensation, use, or possession of any controlled substance.
7. Employees have the right to challenge the results of any tests and any discipline imposed in accordance with the Grievance procedure of their labor contract. Employees who dispute the results of a drug test may have their split sample tested at their cost at another DHHS-certified laboratory. This request must be made within 72 hours of notification of a positive drug test result by the MRO.
8. Employees having knowledge of another employee's condition/behavior that poses a potential threat to the safety of employees and/or the public are to notify their immediate supervisor.
9. Employees who are required to undergo a drug and/or alcohol test will be provided transportation to the collection facility and shall also be offered transportation home by a Department representative. If suspected of being

impaired, the employee will be advised against driving him/herself home or otherwise operating a motor vehicle.

10. Employees may have a Guild representative present at the collection facility. However, the lack of Guild representation shall not cause unreasonable delays in the collection process.
11. Employees shall fully cooperate in the collection process.

## **G. DETECTION**

1. Reasonable Suspicion. Once the steps outlined in the attached “Supervisor’s Guidelines” are followed, an employee may be required to undergo a drug and/or alcohol test when reasonable suspicion exists to indicate that the employee is under the influence of a prohibited substance.
2. The decision to conduct a drug and/or alcohol test shall be made by the reporting supervisor and the highest-ranking supervisor on duty. For purposes of this policy, acting officers are considered supervisors. The higher of the two supervisors will make timely notification of the situation to the department head or the department head’s management level designee, and the Human Resources Director his/her designee. Refusal to submit to a drug and/or alcohol test authorized by this policy shall be grounds for discipline, up to and including discharge.
3. Searches
  - a) The Department has the right to search, without employee consent, City-owned property to which the employee has no reasonable expectation of privacy. These areas may include office space, desks, file cabinets and the like, that several different individuals may use or access. A reasonable expectation of privacy shall exist in personal containers marked and locked inside an Officer’s desk drawer.
  - b) If the employee’s consent to search is first obtained, the Department shall have the right to search (1) City-owned property to which the employee has a reasonable expectation of privacy, and (2) private property belonging to the employee, such as a personal equipment bag, brief case, or private vehicle. If such consent is given, the employee shall have the right to Guild representation during the search. City-owned areas where the employee has a reasonable expectation of privacy are the employee’s personal lockers.
  - c) If the Department requests the employee’s consent to search, the Department shall first inform the employee that:



- (1) The Department has reasonable suspicion to suspect that evidence exists within the area or item to be searched which could be used in disciplinary and/or legal proceedings against the employee; and
  - (2) The employee has the right to Guild representation during the search if consent is given; and
  - (3) Refusal to give consent to search will not be considered by the Department to be an admission of guilt or cause for disciplinary or retaliatory action.
- d) An employee's refusal to give consent to search shall not preclude the Department from contacting the police authority having jurisdiction to conduct a search according to and in the manner authorized by law.
4. Possession, manufacture, distribution or sale of alcohol, drugs, or drug paraphernalia on City property or during work time is expressly prohibited and may provide a basis for discipline under department rules and regulations, but shall not in and of itself constitute cause for drug and/or alcohol testing under this policy. For purposes of this policy, work time includes meal and break periods or any other time when the employee is on paid status. Alcoholic beverages that are properly stored, unopened, in the trunk of an employee's vehicle will not be considered a violation of this policy. Any illegal drugs and/or drug paraphernalia coming into the City's possession will be turned over to the police authority having jurisdiction.

## **H. TESTING PROCEDURES**

1. Drug and alcohol testing shall be conducted in a manner designed to protect employees, protect the integrity of the testing process, safeguard the validity of test results, and ensure that those results are attributed to the correct employee. The City and Guild agree that if the security of the urine or blood sample is compromised in any way, any positive test shall be invalid and may not be used for any purpose.
2. Employees who are required to undergo a drug and/or alcohol test will be provided transportation to the collection facility and shall also be offered transportation home by a Department representative.
3. Employees may have a Guild representative present at the collection facility. However, the lack of Guild representation shall not unreasonably delay the collection process.
4. Employees required to undergo a drug and/or alcohol test shall cooperate fully in the collection process and complete all required forms and documents. These forms may include a Consent/Release form and an Interview form.

5. Urine samples for drug testing shall be collected at a collection site designated by the City and Guild using the split sample collection method. The split sample is made available if re-testing becomes necessary. Any specimen that tests positive for drugs shall be retained in long-term frozen storage by the laboratory conducting the analysis for a minimum of one year.
6. If medical personnel at the collection site have reason to believe that an adulterated or substituted sample has been provided (or that the employee may alter or substitute the sample), the employee will be required to submit a second sample (or the original sample). This collection shall be under the direct observation of a same gender collection site staff person. The employee will be required to provide the additional or original sample during an observed collection prior to leaving the collection site.
7. An approved chain of custody procedure shall be followed in the administration of all drug tests. Urine samples shall be sealed and initialed by the employee and a witness.
8. Urine samples shall be promptly sent to and tested by a laboratory that is certified to perform drug tests by the Department of Health and Human Services (DHHS). Initial drug screening shall be conducted using an accepted immunoassay method. All positive tests shall be confirmed using the gas chromatography/mass spectrometry (GC/MS) drug testing method. The laboratory shall test for only the substances and within the limits as follows for the initial and confirmation tests, as provided within NIDA standards, unless this section is modified by amended agreements provided for in Section L.3.:
  - a) Initial Tests
 

(1) Alcohol	.02 g/210 ml expired air
(2) Marijuana metabolites	50 ng/ml
(3) Cocaine metabolites	300 ng/ml
(4) Opiate metabolites (1)	300 ng/ml
(5) Phencyclidine	25 ng/ml
(6) Amphetamines	1000 ng/ml
(7) If immunoassay is specific for free morphine the initial test level is 25 ng/ml.	
  - b) Confirmatory Test
 

(1) Alcohol	.02 g/210 ml expired air
(2) Marijuana metabolites	15 ng/ml
(3) Cocaine metabolites	150 ng/ml
(4) Opiates	
(a) Morphine	300 ng/ml

(b) Codiene	300 ng/ml
(c) Phencyclidine	25 ng/ml
(d) Amphetamine	500 ng/ml
(e) Methamphetamine	500 ng/ml

9. Alcohol shall be tested by means of Breathalyzer machine currently in use (B.A.C.) or future equipment which may supersede the B.A.C. machine (but excludes the P.B.T. device). Breathalyzer alcohol tests shall be conducted in private at the collection site designated by the City and the Guild. The testing shall follow the protocols established for criminal investigations, including the requirement of two breath samples within the proper variance. If the initial test indicates an alcohol concentration of 0.02 or greater, a second test shall be performed to confirm the results of the initial test at the election of the employee. The confirmatory test shall also use a 0.02 blood alcohol concentration level to measure a positive test. If the Employee refuses to take the second confirmatory test, the first test will be used to determine alcohol concentration.
10. Upon written request by the employee, the City shall make one legible copy of the results of his/her drug and/or alcohol tests available to the employee.
11. All information collected in the process of conducting a drug and/or alcohol test shall be treated as confidential information. These files shall be separate from the personnel file and sealed and maintained in a secure medical file.
12. Employees who refuse or fail to fully cooperate in the collection process may be subject to discipline up to and including discharge. Examples of a failure to fully cooperate include such actions as, refusing to sign the necessary consent/release forms; delaying and/or obstructing the collection process; failing to provide the specimen for testing; and attempting to substitute or adulterate a specimen. The foregoing list is not intended to be an all-inclusive list. City management shall, in all circumstances, have the final right to determine the appropriate level of discipline depending on the specific circumstances, the employee's performance record, and any other pertinent facts.

## **I. REPORTING OF RESULTS**

1. The City shall have a designated Medical Review Officer (MRO) who must be a licensed physician with knowledge of substance abuse disorders and familiar with the characteristics of the laboratory tests (sensitivity, specificity, and predictive value). The role of the MRO will be to review and interpret the positive drug test results.
2. Alcohol Test Results. Laboratory or collection site personnel will report the test results to the City's Human Resources Manager, or his/her designee. The Human Resources Director will promptly advise the appropriate

Department Head of these test results. If the confirmation test meets or exceeds 0.02 g/210 ml expired air, the laboratory or collection site personnel shall report to the Human Resources that the employee tested positive for alcohol. If the test result is below 0.02 g/210 ml expired air, the laboratory or collection site personnel will report to the Human Resources Director that the employee tested negative for alcohol.

3. Drug Test Results. Laboratory personnel will advise the Human Resources Director, or his/her designee directly of all negative drug test results. The Human Resources Director will promptly advise the appropriate Department Head of these test results.

The laboratory will advise only the MRO of any positive drug test results. The MRO must examine alternate medical explanations for any positive test results. This process shall include an interview with the affected employee and a review of the incident file, employee's medical history and any other relevant biomedical factors. The MRO must review all medical records made available by the tested employee when a confirmed positive test could have resulted from legally prescribed medication. Employees involved in this step of the examination shall make themselves and any relevant records they wish to present available to the MRO within 48 hours after request.

After reviewing the incident file and interviewing the employee, the MRO shall report to the City's Human Resources Director or his/her designee the name of the employee, and whether a positive test of a prohibited substance has been verified. The Human Resources Director shall promptly notify the appropriate Department Head of the test result.

4. Rehabilitation Program. If the tested employee is referred on to rehabilitation or treatment, the MRO is authorized to communicate specific results to the Substance Abuse Professional (SAP) or counselor overseeing the employee's treatment program.
5. Grievance. The laboratory and/or the MRO will be authorized to release specific test results to the City and the Guild in cases of a grievance and/or a legal challenge.

## **J. REHABILITATION AND RETURN TO DUTY**

1. The City recognizes that substance abuse can be successfully treated, enabling an employee to return to satisfactory job performance. Employees who are concerned about their own drug use and/or alcohol abuse are encouraged to voluntarily seek assistance through the City's EAP. All such voluntary requests for assistance will remain confidential.
2. Any employee who tests positive for a prohibited substance or is otherwise required to submit to a drug and/or alcohol test by this policy shall be

medically evaluated, counseled, and treated for rehabilitation as recommended by the SAP. If the employee is required to participate in such a program, his/her reinstatement or continued employment shall be contingent upon:

- a) Successful completion of the program and remaining drug- and/or alcohol-free for its duration; and
  - b) Passing a return to duty drug and/or alcohol test as recommended by the SAP; and
  - c) Obtaining a final release for duty by the SAP (the final release for duty may be preceded by a temporary release for duty).
3. Employees who successfully complete a rehabilitation program and are released for duty, in addition to being subject to reasonable suspicion testing at any time, will be subject to follow up testing, which involves unannounced drug and/or alcohol testing at least 6 times during the following 24 months. The SAP will determine the dates for these drug and/or alcohol tests. These test dates will be communicated to the Human Resources Director who will inform the employee of those dates. The appointment for the collection will be made in advance and maintained in a confidential manner by the Human Resources Director until the day of the collection. The Human Resources Director shall provide the supervisor with adequate notice of the test dates. The employee will not be notified until just prior to the testing. The employee may request a Guild representative to accompany him/her to the collection site, provided the sample is collected within two (2) hours following notification.
  4. Upon notification of selection for the follow up tests, the employee must proceed directly to the collection site for testing. At this time, the employee will receive an Employee Notification of Scheduled Drug/Alcohol Test letter from the designated contact. The employee will be required to sign this letter and a Consent/Release form. The employee must present photo identification to collection site personnel. The Human Resources Director or his/her designee will retain a copy of all the forms.
  5. Refusing to submit to a return to duty or a follow up test will be considered grounds for discharge. If the selected employee fails to report to the collection site within 2 hours of notification of testing, this will also be considered grounds for disciplinary action up to and including discharge.
  6. If an employee voluntarily enters a drug/alcohol rehabilitation program, it shall not be considered an offense under this policy. Such employees are, however, still subject to this policy and may be required to undergo a drug and/or alcohol test if reasonable suspicion exists.

7. All appointments with the SAP may be scheduled as vacation, or leave without pay with prior approval of the supervisor, Department Head, or management designee. The SAP will contact the Department Head or his/her designee to make a recommendation as to the need for further treatment. Once vacation leave is exhausted, the employee will be placed on leave without pay. The Department Head or his/her management level designee shall maintain confidentiality regarding the reason for the leave.
8. The employee will be responsible for all costs, not covered by insurance, which arise from such treatment.
9. Once an employee has tested positive for substance abuse and the MRO has notified the City, the employee will be placed on leave status (vacation, holiday leave bank, compensatory time or leave without pay). The employee will remain on leave until s/he has a release for duty from the SAP and has passed a return to duty drug and/or alcohol test as recommended by the SAP. The release for duty may be a temporary or final release as described below depending on the circumstances.
10. Temporary Release for Duty. The SAP shall sign a temporary release for duty indicating that the employee can satisfactorily return to regular work assignment and continue treatment on an outpatient basis. The temporary release for duty shall indicate the length of time such release is valid not to exceed 4 months. The employee must present a final release for duty on or before the expiration date of the temporary release. A temporary release shall include follow up testing. The employee must present both the temporary and final release for duty to his/her supervisor.
11. Final Release for Duty. A final release for duty shall be signed by the SAP indicating that the employee has:
  - a) Satisfactorily completed treatment and follow up testing; or
  - b) Does not require treatment at this time, and the employee may return to regular work assignment without restrictions. Failure to provide a final release for duty to the supervisor may result in disciplinary action up to and including discharge.
12. Once an employee provides the supervisor with the final release for duty the employee shall be returned to his/her regular duty assignment. After three years of no further violation of this policy, the employee's personnel file shall be purged of any reference to the incident, including any disciplinary actions taken, provided, however, records may be retained beyond 3 years when retention is required by applicable law. Should applicable law require retention of records past 3 years, and if allowed by such law, such records shall be sealed and may not be opened without consent of the employee.

13. If an employee tests positive during the 24-month period following rehabilitation on a reasonable suspicion drug or alcohol test, the employee will be subject to discipline, up to and including discharge.
14. If an employee tests positive during the 24-month period following rehabilitation on a random drug or alcohol test, the employee will be placed on leave without pay during the period the SAP makes a decision on the need for further treatment. The employee will remain on leave without pay during any treatment period and until they have provided the employer with a return to duty form signed by the SAP. If such an employee completes the return to duty process and again tests positive on either a reasonable suspicion or random drug or alcohol test, they shall be subject to discharge.

#### **K. RANGE OF CONSEQUENCES**

1. Employees who violate this policy will be subject to a range of disciplinary consequences depending upon the severity of the infraction and/or the employee's past performance record. In all cases, the City reserves the right to determine the appropriate disciplinary measures, which may be more or less severe than those included in this guideline. The following list of actions and the related consequences is intended as a guideline only, and further, is not intended to be an all-inclusive list of possible disciplinary consequences.
2. If an employee has an alcohol concentration of 0.02 or greater in any authorized alcohol test, and/or tests positive for drugs and/or their metabolites in any authorized drug test and it is the employee's *first offense*, then s/he shall be referred to the EAP for counseling and/or completion of a substance abuse treatment or rehabilitation program. However, if an employee violates a work rule in conjunction with failing a drug and/or alcohol test, then s/he may be subject to disciplinary action. The City shall have the right to take disciplinary action, up to and including discharge, based on the severity of the incident and/or the employee's past record.
3. Employees will be subject to disciplinary action, up to and including discharge, for any of the following infractions:
  - a) Refusal to submit to an authorized drug and/or alcohol test. Refusal to submit to testing means that the employee fails to provide an adequate urine or breath sample for testing without a valid medical explanation after s/he has received notice of the requirement to be tested, or engages in conduct that clearly obstructs the testing process. Refusal to submit to testing includes, but is not limited to, refusal to execute any required consent forms, refusal to cooperate regarding the collection of samples, refusal or failure to provide necessary documentation to the MRO when requested, and/or submission or attempted submission of an adulterated or substituted urine sample.

- b) Drinking alcoholic beverages or using drugs while on duty, on City property, in City vehicles, or during breaks and/or meal periods during work hours.
  - c) Unlawful manufacture, distribution, dispensation, possession, concealment or sale of any controlled substance, including an alcoholic beverage, while on duty, on City property, in City vehicles, or during breaks and/or meal periods during work hours.
  - d) Any criminal drug statute conviction and/or failure to notify the City of such conviction within 5 days.
  - e) Failure to complete a counseling, treatment, or rehabilitation program as prescribed by the SAP.
  - f) Testing positive on a return to duty.
  - g) Any two failures on follow up drug and/or alcohol testing during the 24 month following rehabilitation.
  - h) Failure to report to a collection site within two (2) hours of notification for return to duty or follow up testing.
  - i) Second offense – alcohol concentration of 0.02 or greater in any reasonable suspicion authorized alcohol test, and/or testing positive for drugs and/or their metabolites in any authorized reasonable suspicion drug test.
  - j) Employee's failure to participate in the temporary and/or final releases for duty testing in a timely manner.
4. Although the foregoing infractions will ordinarily result in discharge regardless of the employee's position, the City reserves the right to consider extenuating circumstances and to impose lesser discipline when such action is deemed appropriate.

#### **L. OTHER**

1. The City shall pay for initial costs of the substance abuse examination including the expenses of the Medical Review Officer.
2. This policy was initiated at the request of the City and the Employer shall assume sole responsibility for the administration of this policy. The City agrees to indemnify and hold the Guild and its officers harmless from any and all claims of any nature (except those arising from the negligence of the Guild and/or its officers) arising from the Employer's, laboratories', or Medical Review Officer's implementation of this policy.



3. The parties recognize that during the life of this agreement there may be improvements in the technology of testing procedures which provide more accurate testing for on-the-job impairment or which constitute less invasive procedures for the employees. In that event, the parties will bargain in good faith whether to amend this procedure to include such improvements. If the parties are unable to agree, the issue will be submitted to impasse procedures under RCW 41.56.
4. If any provision of this Agreement shall be held invalid by operation of law, or any Tribunal of competent jurisdiction, or if compliance or enforcement of any provision should be restrained by such Tribunal pending final determination as to its validity, the remainder of this Agreement shall not be held to be invalid, and will remain in full force and effect, and the parties, upon request of one to the other shall initiate immediate negotiations for the purpose of arriving at a mutually satisfactory replacement of such provision.
5. The following attachments shall be a part of this Policy: Supervisor's Guidelines, Report Form, Interview Form, Consent/Release Form.

#### **M. SUPPORTIVE DOCUMENTS:**

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### **POLICIES AND PROCEDURES FOR DRUG/ALCOHOL TESTING AND TREATMENT SUPERVISOR'S GUIDELINES**

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The primary goal of the Substance Abuse Policy is to provide a working and service delivery environment free from the effects of alcohol/drug abuse. The supervisor's role is to identify employees who may be a threat to the safety and welfare of the employee, other employees, and the public by being under the influence of drugs and/or alcohol while on-duty. Such employees *must* be removed from the workplace.

Follow the steps below to ensure that you are proceeding correctly. It is important that proper procedures are followed to preserve the privacy of the individual and to comply with legal and contractual requirements.

1. Contact your appropriate command staff and explain the situation.
2. Your supervisor will:
  - a) Advise you of what appropriate action to take regarding your status as the shift supervisor.

- b) Notify the Chief of Police and the Human Resources Director (or their designees) in a timely manner, then join you at your location to assist you and corroborate your observations during the interview.
3. Prepare yourself for an interview with the employee by completing the Report Form. Refer to Attachment 1 for descriptions of physical and behavioral signs which may indicate substance abuse.
4. After your supervisor has arrived, advise the employee you wish to interview him/her and provide a private location to conduct the interview.
  - a) Be sure to advise the employee that you suspect him/her of being under the influence of a prohibited substance (defined in the policy) and that s/he may have a Guild representative present during the interview.
  - b) Do not argue with a belligerent or threatening employee. Advise him/her that his/her cooperation during the interview and testing procedure (if warranted) are direct orders and that continued disruptive behavior, preventing completion of the interview, shall be the same as refusal to submit to testing and shall be cause for discipline (cooperation *does not* mean that any employee must give facts or evidence which may incriminate himself/herself).
  - c) Complete the Interview Form with your supervisor.
5. Review the relevant information with your supervisor. If your supervisor decides that the test is required, relieve the employee of duty, with pay, during the course of the exam and MRO review.
6. Have the employee sign a Consent/Release Form.
  - a) Read the form to the employee and direct him/her to sign it. Do not alter the form in any way.
  - b) Be sure, if the employee has declined Guild representation, that s/he understands that s/he may choose to have a Guild representative accompany him/her to the testing facility.
  - c) If the employee refuses to sign the form, advise him/her that this is a direct order and that failure to comply shall be cause for discipline.
  - d) Issue a second order for the employee to sign the consent form. If s/he still refuses, relieve the employee of duty, with pay, explain that disciplinary action may follow. You or your supervisor will transport the employee home. (No employee suspected of impairment from alcohol/drug abuse shall be allowed to drive.)
7. Your supervisor shall transport the employee to the testing facility, and wait at the testing facility until the testing is completed.
8. When the exam is completed, your supervisor will:
  - a) Reconfirm with the employee that s/he has been relieved of duty, with pay, and

- b) Advise the employee that s/he will be contacted by the MRO to review the results (if positive), and
  - c) Advise the employee that s/he will be contacted by the department advising him/her how to return to duty, and
  - d) Drive or arrange transportation for the employee home. Do not return the employee to a City facility.
9. Once the employee has been sent home, your supervisor will:
- a) Gather copies or originals of the Report Form, Interview Form, Consent/Release Form, and any other written notes or reports and forward them to the Police Chief and Human Resources Manager.

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**City of Kirkland police Department**  
**Substance abuse Policy**  
**CONSENT/RELEASE FORM**

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I consent to the collection of urine, a blood and/or expired air sample by \_\_\_\_\_ and its analysis by \_\_\_\_\_ for those drugs, alcohol, and or controlled substances specified in the Collective Bargaining Agreement pursuant to the Substance Abuse Policy agreed to between the City of Kirkland and the Kirkland Police Guild.

The laboratory administering the tests may release the results to the Medical Review Officer (MRO), who shall release his/her conclusions to the employer after review and interpretation. If I test positive, I agree to make any requested records and myself available to the MRO within 48 hours of such request. The information provided to the employer from the MRO shall be limited to whether the tests were confirmed positive or negative, and no other test results will be released, except as provided herein, without my written consent. The laboratory will advise the employer's representative whether the initial alcohol screen is positive or negative.

I understand that I have the right to my complete test results and that the laboratory will preserve the sample for at least one year. If I test positive, I have the right to have the split sample tested at my expense at a second DHHS-certified laboratory of my choice. I understand that I must request such test of the split sample within 72 hours of notification of a positive test result by the MRO.

I understand that the Employer is requiring me to submit to this testing as a condition of my employment and that if I tamper with, alter, substitute, or otherwise obstruct or fail to cooperate with the testing process, I will be subject to disciplinary action up to and including termination.

I further understand that a confirmed positive test will result in actions taken by the employer and for the employee which are consistent with the City's policies and procedures for substance abuse testing and treatment.

I understand that the employer will administer the Policy consistent with federal and state constitutional and statutory requirements. Also, by signing this consent form, I am not waiving the right to challenge any confirmed positive test result and any Employer action based thereon. In order to pursue any challenge related to this test, I will, however, be required to authorize the laboratory and MRO to release to my Employer and the Guild any information relating to the test or test results. Further, I understand that my employer may require that I participate in a treatment or rehabilitation program. If required to do so, I authorize the laboratory and MRO to release any information relating to the test or test results to the Substance Abuse Professional (SAP) or treatment counselor. My signature below indicates my consent for release of this information.

**Employee Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

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**City of Kirkland police Department  
Substance abuse Policy  
REPORT FORM**

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This form must be filled out prior to any drug/alcohol testing. Review Supervisor's Guidelines before completing this form. The information contained on this form is confidential and shall be viewed only by necessary supervisory/managerial employees, the testing facility, MRO, and the employee being interviewed/tested. When this form is completed and signed, make one copy of the form and distribute as follows: Original to Police Chief, Copy attached to consent form.

Employee Name: \_\_\_\_\_

Speech: \_\_\_\_\_

Dexterity: \_\_\_\_\_

Standing: \_\_\_\_\_

Walking: \_\_\_\_\_

Judgment: \_\_\_\_\_

Decision-making: \_\_\_\_\_

Appearance (eyes, clothing, etc.): \_\_\_\_\_

Odor: \_\_\_\_\_

Other: \_\_\_\_\_

Location where these were observed: \_\_\_\_\_

Time of observation: \_\_\_\_\_

Witnesses: \_\_\_\_\_

Supervisor's Signature \_\_\_\_\_ Date / Time: \_\_\_\_\_

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**City of Kirkland police Department  
Substance abuse Policy  
INTERVIEW FORM**

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**Name of Employee** \_\_\_\_\_

I understand that I am entitled to Guild representation during this meeting and during any subsequent meetings or at testing facilities. I understand that I am being ordered to answer these questions and that if I refuse to answer these questions I am subject to discipline up to and including termination. I do or do not (please circle one) want a representative at this time. I understand that I am entitled to Guild representation at any time whether I choose to have one now or not.

Employee signature: \_\_\_\_\_

1. I (we) have noticed (describe behavior/evidence) \_\_\_\_\_

\_\_\_\_\_

2. Do you have any explanation? \_\_\_\_\_

\_\_\_\_\_

3. Are you using any type of illicit drug or alcohol? \_\_\_\_\_

If yes, what? \_\_\_\_\_

When did you take it? \_\_\_\_\_

Where did you take it? \_\_\_\_\_

How much did you take? \_\_\_\_\_

Do you have any drugs/alcohol in your possession at work? \_\_\_\_\_

(if yes, get agreement to confiscate)

Based on the interview and the completed Report Form, I believe the employee should be tested for drugs and/or alcohol.

**Dated** \_\_\_\_\_

Supervisor (position) \_\_\_\_\_ Agree \_\_\_\_ Don't Agree

Witness\* (position) \_\_\_\_\_ Agree \_\_\_\_ Don't Agree

\*Witness is an individual other than the designated Guild representative

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**City of Kirkland police Department**  
**Substance abuse Policy**  
**Exhibit 1**

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Listed below are some behavioral descriptions which may guide the supervisor in determining whether an employee is “under the influence” of a prohibited substance. There is no one behavior which is unique to drugs/alcohol. Almost every behavior/sign can also be associated with medical or emotional problems such as high blood pressure, diabetes, thyroid disease, psychiatric disorders, epilepsy, head injury, emotional problems, stress, etc. Even so, a supervisor usually knows the employees “normal” behavior and must try and distinguish alcohol and/or drug abuse from other problems.

Supervisors should be aware that the following physical, behavioral, or performance symptoms may indicate drug/alcohol abuse:

- a) Either very dilated or constricted pupils
- b) Hyperactivity
- c) Unsteady gait
- d) Irritability
- e) Slurred speech
- f) Anxiousness
- g) Wide mood swings

- h) Odor of alcohol
- i) Overreaction to criticism
- j) Staggering
- k) Listlessness
- l) Illogical speech and thought process
- m) Unusual/abnormal behavior
- n) Poor judgment
- o) Avoiding others/withdrawal
- p) Sudden increase in absenteeism

**Appendix “C”  
to the  
Agreement  
by and between  
City of Kirkland  
and  
The Kirkland Police Guild  
Commissioned Staff  
January 1, 2020 through December 31, 2022  
High Deductible Health Plan**

This Appendix is supplemental to the AGREEMENT by and between the CITY OF KIRKLAND, WASHINGTON, hereinafter referred to as the “Employer”, and the Kirkland Police Guild – Commissioned Staff, hereinafter referred to as the “Guild”.

C1.

MEDICAL BENEFITS			
<b>Carrier</b>		<b>First Choice High Deductible Health</b>	
<b>General Plan Information</b>		<b>In-Network</b>	<b>Out-of-Network</b>
HRA Enrollment Contributions Individual		\$1,200	
HRA Enrollment Contributions Family		\$2,400	
Annual Deductible/Individual		\$1,500	\$3,000
Annual Deductible/Family		\$3,000	\$6,000
Office Visit - Primary Provider		80% after deductible	60% after deductible
Office Visit - Specialist		80% after deductible	60% after deductible
Annual Out-of-Pocket Limit/Individual		\$2,500	\$5,000
Annual Out-of-Pocket Limit/Family		\$5,000	\$10,000
Deductible & Copays Included in OOP		Yes	Yes
Lifetime Plan Maximum		Unlimited	Unlimited
Routine Preventive Exam		100% (subject to schedule limitations)	60% after deductible (in-network limitations apply)
Diagnostic X-Ray & Lab-Professional		80% after deductible	60% after deductible
Diagnostic X-Ray & Lab-In-patient		80% after deductible	60% after deductible
Diagnostic X-Ray & Lab-Out-patient		80% after deductible	60% after deductible
Inpatient Hospital Services		80% after deductible	60% after deductible
Outpatient Surgery		80% after deductible	60% after deductible
Emergency Room		80% after deductible	80% after deductible
Urgent Care Facility		80% after deductible	60% after deductible
Mental Health Benefits			
Inpatient Care		80% after deductible	60% after deductible
Outpatient Care		80% after deductible	60% after deductible
Retail Prescription Drugs			
Generic		\$4 copay	Not covered
Brand Formulary		\$15 copay	Not covered
Brand Non-Formulary		\$35 copay	Not covered
# of Days Supply		34 days	Not applicable
Mail Order Prescription Drugs			
Generic		\$8 copay	Not covered
Brand Formulary		\$30 copay	Not covered
Brand Non-Formulary		\$70 copay	Not covered
# of Days Supply		90 days	Not applicable

C2. The HDHP was implemented on January 1, 2016 and the coinsurance on most services is 20%. See Appendix C1.

C3. As of January 1<sup>st</sup>, the deductible and out-of-pocket maximum will reset each plan year.

C4. An employee that elects to waive their medical coverage with the City will receive \$100/month that will be added to their paycheck. An employee is eligible for the waiver if and only if their spouse/domestic partner is not an employee of the City, and they have provided the City with proof of other coverage.



C5. As of January 1, 2016, the out-of-pocket maximum for prescription drug carve out plan will be capped at \$4,100 for individuals or \$8,200 for family. This is separate from and does not count toward the HDHP medical plan deductible or out of pocket maximum.

**Appendix “D”  
to the  
Agreement  
by and between  
City of Kirkland  
and  
The Kirkland Police Guild  
Commissioned Staff  
January 1, 2020 through December 31, 2022**

**Health Reimbursement Account – HRA (VEBA)**

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This Appendix is supplemental to the AGREEMENT by and between the CITY OF KIRKLAND, WASHINGTON, hereinafter referred to as the “Employer”, and the Kirkland Police Guild – Commissioned Staff, hereinafter referred to as the “Guild”.

D1. Employees who enroll in the HDHP will receive contributions deposited into their HRA (VEBA) in the second payroll in January and the second payroll in July through the duration of the contract. Employees who leave employment prior to July 1<sup>st</sup> are not eligible for the second contribution.

D2. HRA (VEBA) contributions will be made bi-annually, in the amounts of \$600 for individuals or \$1,200 for families. The total annual contribution that will be made is \$1,200 for individuals or \$2,400 for family. For purposes of HRA (VEBA) administration “family” is defined as employee plus one or more individual.

D3. Any employee hired after January 1<sup>st</sup> who enrolls in the HDHP will receive prorated contribution amounts based on the quarter in which the employee is eligible for benefits. The contribution will be deposited concurrent with the second payroll of the month in which their benefits become effective.

Hire Date	Individual Coverage	Family Coverage
January 1 <sup>st</sup> – March 31 <sup>st</sup>	\$600	\$1,200
April 1 <sup>st</sup> – June 30 <sup>th</sup>	\$300	\$600
July 1 <sup>st</sup> – September 30 <sup>th</sup>	\$600	\$1,200
October 1 <sup>st</sup> – December 31 <sup>st</sup>	\$300	\$600

D4. An employee and spouse/domestic partner who are both employed by the City cannot enroll in separate family plans.

**Appendix “E”  
to the agreement  
by and between the  
City of Kirkland  
and  
The Kirkland Police Guild  
Commissioned Staff  
January 1, 2020 through December 31, 2022  
Salary Schedules**

<b>1/1/2020</b>			
<b>3.09% Market Adj. &amp; 3% Inflation Adj.</b>			
<b>POSITION TITLE</b>	<b>PCN</b>	<b>Index #</b>	<b>Monthly</b>
SENIOR PATROL SERGEANT	CH1POLCO01	PDCM/PO25	9,645
FIRST CLASS PATROL SERGEANT	CH1POLCO03	PDCM/PO26	9,395
SENIOR PATROL CORPORAL	CH1POLCO05	PDCM/PO27	8,642
PATROL CORPORAL	CH1POLCO07	PDCM/PO28	8,395
PATROL OFFICER 1	CH1POLCO29	PDCM/PO29	7,995
PATROL OFFICER 2	CH1POLCO30	PDCM/PO30	7,506
PATROL OFFICER 3	CH1POLCO31	PDCM/PO31	7,012
PATROL OFFICER 4	CH1POLCO32	PDCM/PO32	6,638
STARTING PATROL OFFICER	CH1POLCO33	PDCM/PO33	6,131

<b>1/1/2021</b>			
<b>1.65% Market Adj. &amp; 3% Inflation Adj.</b>			
<b>POSITION TITLE</b>	<b>PCN</b>	<b>Index #</b>	<b>Monthly</b>
SENIOR PATROL SERGEANT	CH1POLCO01	PDCM/PO25	10,098
FIRST CLASS PATROL SERGEANT	CH1POLCO03	PDCM/PO26	9,837
SENIOR PATROL CORPORAL	CH1POLCO05	PDCM/PO27	9,048
PATROL CORPORAL	CH1POLCO07	PDCM/PO28	8,789
PATROL OFFICER 1	CH1POLCO29	PDCM/PO29	8,370
PATROL OFFICER 2	CH1POLCO30	PDCM/PO30	7,858
PATROL OFFICER 3	CH1POLCO31	PDCM/PO31	7,342
PATROL OFFICER 4	CH1POLCO32	PDCM/PO32	6,950
STARTING PATROL OFFICER	CH1POLCO33	PDCM/PO33	6,419

<b>1/1/2022</b>			
<b>1.64% Market Adj. &amp; 2.5% Inflation Adj.</b>			
<b>POSITION TITLE</b>	<b>PCN</b>	<b>Index #</b>	<b>Monthly</b>
SENIOR PATROL SERGEANT	CH1POLCO01	PDCM/PO25	10,520
FIRST CLASS PATROL SERGEANT	CH1POLCO03	PDCM/PO26	10,248
SENIOR PATROL CORPORAL	CH1POLCO05	PDCM/PO27	9,426
PATROL CORPORAL	CH1POLCO07	PDCM/PO28	9,156
PATROL OFFICER 1	CH1POLCO29	PDCM/PO29	8,720
PATROL OFFICER 2	CH1POLCO30	PDCM/PO30	8,187
PATROL OFFICER 3	CH1POLCO31	PDCM/PO31	7,649
PATROL OFFICER 4	CH1POLCO32	PDCM/PO32	7,241
STARTING PATROL OFFICER	CH1POLCO33	PDCM/PO33	6,688

**CITY OF KIRKLAND****Department of Finance & Administration****123 Fifth Avenue, Kirkland, WA 98033 425.587.3100****www.kirklandwa.gov****MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Greg Piland, Financial Operations Manager

**Date:** March 26, 2020

**Subject:** REPORT ON PROCUREMENT ACTIVITIES FOR COUNCIL MEETING OF April 7, 2020.

This report is provided to apprise the Council of recent and upcoming procurement activities where the cost is estimated or known to be in excess of \$50,000. The "Process" column on the table indicates the process being used to determine the award of the contract.

The City's major procurement activities initiated since the last report dated February 19, 2020 are as follows:

	Project/Purchase	Process	Estimate/Price	Status
1.	I-405 and NE 85 <sup>th</sup> Street Bus Rapid Transit Station Design	Request for Qualifications	\$600,000.00	Contract awarded to Mithun, Inc. of Seattle, WA based on qualifications per RCW 39.80.
2.	108 <sup>th</sup> Ave water and sewer replacement project	Invitation for Bids	\$5,426,676.32	Contract awarded to Marshbank Construction, Inc. of Snohomish, WA.
3.	108 <sup>th</sup> Ave water and sewer replacement project management and inspection	Request for Qualifications	\$469,200.00	Contract awarded to Blueline Group of Kirkland, WA based on qualifications per RCW 39.80.
4.	Pavement condition survey	Request for Qualifications	\$58,720.00	Contract awarded to Capitol Asset and Pavement Services, Inc. of Salem, OR based on qualifications per RCW 39.80.
5.	Central Way preservation project consulting services	Request for Qualifications	\$209,968.06	Contract awarded to Land Development Consultants, Inc. of Woodinville, WA based on qualifications per RCW 39.80.

6.	Design and inspection services for roofing projects at Fire Station 22, Fire Station 27 and Peter Kirk Community Center	Request for Qualifications	\$100,500.00	Contract awarded to Wetherholt and Associates PS of Redmond, WA based on qualifications per RCW 39.80.
7.	CIP program and construction management consultant	Request for Proposal	\$189,400.00	Contract awarded to Rock Project Management Services LLC of Renton, WA.
8.	Totem Lake Park construction management services	Request for Qualifications	\$426,512.00	Contract awarded to Oneill Service Group LLC of Redmond, WA based on qualifications per RCW 39.80.
9.	Background investigation services	Direct Hire	\$138,576.00*	Contract awarded to PST Investigations of Lynnwood, WA.
10.	Thermal imaging cameras for the Kirkland Fire Department	Cooperative Purchase	\$87,500.60	Purchase order issued to Grainger, Inc. of Lake Forest, IL.
11.	2019 neighborhood safety projects	Invitation for Bids	\$375,128.60	Contract awarded to NPM Construction Co. of Maple Valley, WA.


Please contact Greg Piland if you have any questions regarding this report.

\*See attached signed waiver

**CITY OF KIRKLAND****Department of Finance & Administration****123 Fifth Avenue, Kirkland, WA 98033 425.587.3100****[www.kirklandwa.gov](http://www.kirklandwa.gov)**

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**To:** Kurt Triplett, City Manager

**From:** Cherie Harris, Chief of Police 

**Date:** February 10, 2020

**Subject:** REQUEST FOR WAIVER OF COMPETITIVE BIDDING – pre-employee background screening provided by PST Investigations a division of Public Safety Testing, Inc. – PST.

**RECOMMENDATION:**

Staff recommends the waiver of a competitive process to renew the contract with "PST Investigations" a Division of Public Safety Testing Inc. – PST Inc. to provide pre-employment background investigations, other services related to the hiring of police personnel and promotional processes.

**BACKGROUND DISCUSSION:**

The Department has been utilizing the services of PST Inc. since 2006 to conduct pre-employment background investigations on both commissioned and non-commissioned personnel. They have become a strong ally in the effort to hire quality law enforcement staff. A vital component of the law enforcement hiring process is the ability to test and screen for those who are suitable for a profession in law enforcement. PST Inc. utilizes proven methods to provide this essential service.

In a culture where agencies across the region and country are competing to attract outstanding candidates, our relationship with PST Inc. has strengthened our recruiting efforts. Over the last few years, Officers have been allowed the opportunity to actively recruit at their testing site as well as have Kirkland as an agency add-on for those applicants who are then interested in applying for employment with the Department.

While staff has identified one competitor who provides similar services, they are not locally owned and operated. In addition, conducting a competitive bid process would disrupt the current hiring process and certainly the established civil service list of applicants who are already in background with PST. The long-standing relationship with PST has ensured that the Department is often the first agency to utilize new technology and or software, allowing an even quicker turn around in backgrounds. During the most recent promotional process, PST allowed the Department to test a cloud solution for scoring and rater comments, saving almost 2 hours on the day of the assessment center.

KMC 3.85.210 provides that the competitive process may be waived by the City Manager when the purchase is legitimately limited to a single source of supply. However, for purchases costing more than \$50,000, the purchase must be reported to the City Council. If you approve this purchase, this memo and the supporting documents will be included in the next Procurement Activities Report to the Council.

Please contact Chief Cherie Harris or Lieutenant Todd Aksdal if you require additional information.

Kurt Triplett 2/20/2020 ☒  
Kurt Triplett  
City Manager Approved

☐  
Not Approved

Institute some  
competitive process  
w/ procurement  
prior to expiration  
of this contract.  
KT 2/20/2020





**CITY OF KIRKLAND**  
**123 Fifth Avenue, Kirkland, WA 98033 425.587.3000**  
**www.kirklandwa.gov**

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## **MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Michael Olson, Director of Finance and Administration  
David Goldman, Deputy Director of Finance and Administration

**Date:** March 24, 2020

**Subject:** RECOMMENDATION ON BABS BOND REFUNDING

### **RECOMMENDATION:**

City Council approves the bond ordinance authorizing the City Manager and the Director of Finance and Administration to refund the remaining \$30,250,000 of 2010 Limited Tax General Obligation (LTGO) Build America Bonds if market conditions remain favorable.

### **BACKGROUND DISCUSSION:**

Per Council direction from the January 7, 2020 Study Session, the City's Financial Advisor provided two scenarios for refunding of City's remaining \$30,250,000 of outstanding 2010 LTGO Build America bonds at the Council February 7, 2020. Expected savings were updated as of March 8, 2020 (Attachment A). The first scenario refund bonds in the near future (April 15, 2020), while the other refunds them at the call date (October 15, 2020). Refunding them in April is estimated to produce a net present value savings of \$4.6 million over 20 years or about \$245,000 per year (increase from \$3.95 million and \$215,000, respectively, from February 7, 2020). Waiting until the call date is estimated to produce a net present value savings of nearly \$5.2 million over 20 years or about \$280,000 per year, based on current market conditions (increase from \$4.2 million and \$235,000, respectively, from February 7, 2020). However, a 20 basis-point (0.20%) interest rate increase would wipe out the estimated savings of waiting until the call date. Due to the risk involved, the City's Financial Advisor, along with City staff, recommends refunding the bonds soon. The refinanced bond term would still expire in 2040.

The ongoing coronavirus outbreak has caused significant upheaval in the capital markets. In recent days interest rates have moved sharply lower as investors have moved out of the equity market. While lower rates are generally a good development, the speed and degree of this change has created abnormal marketplace volatility. Kirkland's Financial Advisor recommends allowing both a competitive sale and a negotiated underwriting sale in the bond ordinance to maximize City options for the bond sale plan as market conditions warrant. The ordinance has been updated to allow both options.

Approval of the attached bond ordinance prepared by our Bond Counsel, Pacifica Law Group, will allow for the refunding to be accomplished at the earliest possible date. Attachment B presents a proposed schedule of events for the refunding process. Approving the ordinance does not require sale of the bonds. If market conditions fluctuate to a point that is not favorable to the City, the bond sale can be postponed.

# ATTACHMENT A

E-Page 156

## LTGO Bonds, 2010 (Build America Bonds) Refunding Summary

Year	Series 2010 Bonds				Advance - Current Rates		Current - Current Rates		Break-Even <sup>1</sup>	
	Principal	Gross Interest	BAB Subsidy (32.935%)	Net Total	Debt Service	Savings	Debt Service	Savings	Debt Service	Savings
2020		1,487,505	(489,910)	997,595	640,121	357,474	738,683	258,912	<sup>2</sup> 740,370	<sup>2</sup> 257,225
2021	805,000	1,487,505	(489,910)	1,802,595	1,558,800	243,795	1,525,200	277,395	1,548,400	254,195
2022	1,000,000	1,453,695	(478,774)	1,974,921	1,728,600	246,321	1,695,600	279,321	1,718,400	256,521
2023	1,030,000	1,409,695	(464,283)	1,975,412	1,730,600	244,812	1,698,200	277,212	1,720,600	254,812
2024	1,060,000	1,362,315	(448,678)	1,973,637	1,726,200	247,437	1,694,400	279,237	1,716,400	257,237
2025	1,095,000	1,311,965	(432,096)	1,974,869	1,730,600	244,269	1,694,400	280,469	1,721,000	253,869
2026	1,125,000	1,258,310	(414,424)	1,968,886	1,723,400	245,486	1,688,000	280,886	1,714,000	254,886
2027	1,165,000	1,200,935	(395,528)	1,970,407	1,725,000	245,407	1,690,400	280,007	1,715,800	254,607
2028	1,205,000	1,139,773	(375,384)	1,969,388	1,725,000	244,388	1,691,200	278,188	1,716,000	253,388
2029	1,245,000	1,074,703	(353,953)	1,965,749	1,718,400	247,349	1,685,400	280,349	1,709,600	256,149
2030	1,290,000	1,006,228	(331,401)	1,964,826	1,720,400	244,426	1,683,200	281,626	1,711,800	253,026
2031	1,340,000	934,633	(307,821)	1,966,811	1,720,600	246,211	1,689,400	277,411	1,712,200	254,611
2032	1,390,000	859,593	(283,107)	1,966,486	1,719,000	247,486	1,688,600	277,886	1,710,800	255,686
2033	1,440,000	777,930	(256,211)	1,961,719	1,715,600	246,119	1,681,000	280,719	1,707,600	254,119
2034	1,495,000	693,330	(228,348)	1,959,982	1,715,400	244,582	1,681,800	278,182	1,702,600	257,382
2035	1,555,000	605,499	(199,421)	1,961,078	1,718,200	242,878	1,680,600	280,478	1,705,800	255,278
2036	1,610,000	514,143	(169,333)	1,954,810	1,708,800	246,010	1,672,400	282,410	1,696,800	258,010
2037	1,675,000	419,555	(138,180)	1,956,375	1,712,600	243,775	1,677,400	278,975	1,701,000	255,375
2038	1,735,000	320,730	(105,632)	1,950,098	1,704,000	246,098	1,670,000	280,098	1,692,800	257,298
2039	1,800,000	218,365	(71,919)	1,946,446	1,703,400	243,046	1,665,600	280,846	1,692,600	253,846
2040	1,870,000	111,265	(36,645)	1,944,620	1,700,400	244,220	1,664,000	280,620	1,690,000	254,620
	\$26,930,000	\$19,647,669	-\$6,470,960	\$40,106,709	\$34,845,121	\$5,261,588	\$34,255,483	\$5,851,226	\$34,744,570	\$5,362,139
TIC%					2.02%		2.02%		2.17%	
Cash Flow Savings					\$5,261,588		\$5,851,226		\$5,362,139	
NPV Savings					\$4,640,736		\$5,193,218		\$4,673,691	
NPV% of Refunded Bonds					17.23%		19.28%		17.35%	
Escrow Negative Carry					124,804		\$15,045		\$22,039	
Refunding Efficiency					97%		100%		100%	
Breakeven Margin									20bps	
Issue Date					5/15/2020		10/15/2020		10/15/2020	

Notes:

<sup>1</sup> Represents an approximate equivalent net result to the refunding accomplished at 4/15/20

<sup>2</sup> Savings reflects the amount of net prior debt for the Current and Break-even scenarios is \$498,798 compared to \$997,565 at the time of the advance refunding at 4/15/2020

**City of Kirkland, Washington**  
**Limited Tax General Obligation Refunding Bonds, 2020**

**Schedule of Events**  
**(As of 3/9/2020)**

JANUARY							FEBRUARY							MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1	1	2	3	4	5	6	7				1	2	3	4
5	6	7	8	9	10	11	2	3	4	5	6	7	8	8	9	10	11	12	13	14	5	6	7	8	9	10	11
12	13	14	15	16	17	18	9	10	11	12	13	14	15	15	16	17	18	19	20	21	12	13	14	15	16	17	18
19	20	21	22	23	24	25	16	17	18	19	20	21	22	22	23	24	25	26	27	28	19	20	21	22	23	24	25
26	27	28	29	30	31		23	24	25	26	27	28	29	29	30	31					26	27	28	29	30		

Issuer	City of Kirkland	City
City Council	City of Kirkland City Council	Council
Bond Counsel	Pacifica Law Group	BC
Financial Advisor	PFM Financial Advisors LLC	FA
Verification	TBD	CPA
Escrow Agent	U.S. Bank National Association	Escrow
Working Group	City/FA/BC/Escrow	WG

Date	Day	Event	Responsible Party
1/9	Thurs	• First draft Bond Ordinance distributed	BC
2/7	Fri	• Council meeting to discuss financing	City/Council/FA/BC
2/17	Mon	• <i>President's Day</i>	
3/11	Wed	• Send information requirements for Preliminary Official Statement (POS) to the City	BC
3/20	Fri	• Second draft Bond Ordinance Distributed	BC
3/25	Wed	• POS information due from the City	City
3/27	Fri	• Comments due on second draft Bond Ordinance	WG
3/31	Tues	• First draft POS Circulated to Working Group • Final Bond Ordinance forwarded to Council	BC
4/3	Fri	• Comments due on first draft POS	WG
4/7	Tues	• Bond Ordinance adopted	WG
4/8	Wed	• Second draft POS Circulated to Working Group	BC
4/9	Thurs	• First review of draft rating agency presentation	City/FA
4/15	Mon	• Comments due on second draft POS	WG
4/15	Wed	• Second review of draft rating agency presentation	City/FA
4/17	Fri	• Rating Agency Call(s)	City/FA
4/20	Mon	• 3 <sup>rd</sup> Draft POS Circulated	BC
4/22	Wed	• Draft CPA Verification Report Circulated	CPA
4/23	Thurs	• Due Diligence Call & Final POS Signoff	WG
4/24	Fri	• Rating Confirmation	City/PFM
4/27	Mon	• POS Posted	BC
5/5	Tues	• Bond Sale • CPA Verbal Confirmation • Submit SLG Subscription	WG CPA Escrow

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Date	Day	Event	Responsible Party
5/6	Wed	<ul style="list-style-type: none"><li>CPA Final Verification Report Delivered</li></ul>	CPA
5/7	Thurs	<ul style="list-style-type: none"><li>Final OS distributed to Working Group for review</li></ul>	BC
5/8	Fri	<ul style="list-style-type: none"><li>Comments due on Final OS</li><li>Closing Memorandum Circulated</li></ul>	WG FA
5/11	Mon	<ul style="list-style-type: none"><li>Final OS delivered for posting</li></ul>	BC
<b>5/15</b>	<b>Fri</b>	<ul style="list-style-type: none"><li><b>Bond Closing</b></li></ul>	<b>WG</b>

## ORDINANCE NO O-4719

AN ORDINANCE OF THE CITY OF KIRKLAND, WASHINGTON, AUTHORIZING THE ISSUANCE OF LIMITED TAX GENERAL OBLIGATION REFUNDING BONDS IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED \$30,250,000 FOR THE PURPOSE OF REFUNDING CERTAIN OUTSTANDING GENERAL OBLIGATION BONDS OF THE CITY AND PAYING COSTS OF ISSUING THE BONDS; DELEGATING CERTAIN AUTHORITY TO APPROVE THE METHOD OF SALE AND FINAL TERMS OF THE BONDS; AND AUTHORIZING OTHER RELATED MATTERS.

1 WHEREAS, the City of Kirkland, Washington (the "City"), issued its Limited  
2 Tax General Obligation Bonds, Series 2010 (Taxable Build America Bonds – Direct  
3 Payment) (the "2010 Bonds") in the original aggregate principal amount of  
4 \$35,345,000 pursuant to Ordinance No. 4272 (the "2010 Ordinance"); and  
5

6 WHEREAS, the 2010 Bonds maturing on or after December 1, 2021 are  
7 subject to redemption at the option of the City on any date on or after December 1,  
8 2020, in whole or in part, at the price of par plus accrued interest, if any, to the  
9 date of redemption; and  
10

11 WHEREAS, the 2010 Bonds were issued as taxable Build America Bonds  
12 with a direct federal interest subsidy payment to the City; and  
13

14 WHEREAS, upon the legal defeasance of the 2010 Bonds, the 2010 Bonds  
15 will no longer qualify as Build America Bonds, the City will no longer be able to  
16 collect federal interest payment subsidies in connection with the 2010 Bonds, and  
17 the defeased 2010 Bonds will be taxable obligations eligible for advance refunding  
18 on a tax-exempt basis; and  
19

20 WHEREAS, the Council deems it in the best interest of the City to issue  
21 limited tax general obligation refunding bonds (the "Bonds") to defease and  
22 redeem the outstanding 2010 Bonds and to pay costs of issuing the Bonds; and  
23

24 WHEREAS, the Council wishes to delegate authority to the City Manager  
25 and the Director of Finance and Administration (each, a "Designated  
26 Representative"), for a limited time, to approve the method of sale and the interest  
27 rates, maturity dates, redemption terms and principal maturities for the Bonds  
28 within the parameters set by this ordinance to effect the refinancing; and  
29

30 WHEREAS, the Bonds shall be sold by negotiated or competitive public sale  
31 as set forth herein;  
32

33 NOW, THEREFORE, the City Council of the City of Kirkland does ordain as  
34 follows:

35  
36 Section 1. Definitions. As used in this ordinance, the following words  
37 and terms shall have the following meanings, unless the context or use indicates  
38 another or different meaning or intent. Unless the context indicates otherwise,  
39 words importing the singular number shall include the plural number and vice  
40 versa.

41  
42 *Acquired Obligations* means the Government Obligations acquired by the  
43 City under the terms of this ordinance and the Escrow Agreement to effect the  
44 defeasance and refunding of the Refunded Bonds, but only to the extent that the  
45 same are acquired at Fair Market Value.

46  
47 *Beneficial Owner* means any person that has or shares the power, directly  
48 or indirectly, to make investment decisions concerning ownership of any Bonds  
49 (including persons holding Bonds through nominees, depositories or other  
50 intermediaries).

51  
52 *Bond Counsel* means Pacifica Law Group LLP or an attorney at law or a  
53 firm of attorneys, selected by the City, of nationally recognized standing in matters  
54 pertaining to the tax exempt nature of interest on bonds issued by states and their  
55 political subdivisions.

56  
57 *Bond Purchase Contract* means one or more contracts, if any, for the  
58 purchase of any Bonds sold by negotiated sale to the Underwriter, executed  
59 pursuant to Section 10.

60  
61 *Bond Register* means the registration books showing the name, address  
62 and tax identification number of each Registered Owner of the Bonds, maintained  
63 for the Bonds in the manner required pursuant to Section 149(a) of the Code.

64  
65 *Bond Registrar* means, initially, the fiscal agent of the State, for the  
66 purposes of registering and authenticating the Bonds, maintaining the Bond  
67 Register, effecting transfer of ownership of the Bonds and paying interest on and  
68 principal of the Bonds.

69  
70 *Bonds* mean the limited tax general obligation refunding bonds authorized  
71 to be issued pursuant to this ordinance.

72  
73 *Call Date* means December 1, 2020.

74  
75 *Certificate of Award* means one or more certificates, if any, for the purchase  
76 of any Bonds sold by competitive sale awarding the Bonds to the successful bidder  
77 as set forth in Section 10 of this ordinance.

78  
79 *City* means the City of Kirkland, Washington, a municipal corporation duly  
80 organized and existing by virtue of the laws of the State.

81

82        *City Attorney* means the duly appointed and acting City Attorney of the  
83 City, including anyone acting in such capacity for the position, or the successor to  
84 the duties of that office.

85  
86        *City Clerk* means the duly appointed and acting City Clerk of the City or the  
87 successor to the duties of that office.

88  
89        *City Manager* means the duly appointed and acting City Manager of the  
90 City or the successor to the duties of such office.

91  
92        *Closing* means the date of issuance and delivery of the Bonds to the  
93 Underwriter.

94  
95        *Code* means the Internal Revenue Code of 1986 as in effect on the date of  
96 issuance of the Bonds or (except as otherwise referenced herein) as it may be  
97 amended to apply to obligations issued on the date of issuance of the Bonds,  
98 together with applicable proposed, temporary and final regulations promulgated,  
99 and applicable official public guidance published, under the Code.

100  
101        *Commission* means the United States Securities and Exchange Commission.

102  
103        *Continuing Disclosure Certificate* means one or more written undertakings  
104 for the benefit of the owners and Beneficial Owners of the Bonds as required by  
105 Section (b)(5) of the Rule.

106  
107        *Council* or *City Council* means the Kirkland City Council, the general  
108 legislative body of the City, as the same is duly and regularly constituted from time  
109 to time.

110  
111        *Debt Service Fund* means one or more funds or accounts created pursuant  
112 to this ordinance for the purpose of paying debt service on the Bonds.

113  
114        *Designated Representative* means the City Manager or the Director of  
115 Finance and Administration, or any other officer or employee of the City appointed  
116 in writing by either of them. The signature of one Designated Representative shall  
117 be sufficient to bind the City.

118  
119        *Director of Finance and Administration* means the City's Director of Finance  
120 and Administration or the successor to the duties of the office.

121  
122        *DTC* means The Depository Trust Company, New York, New York, a limited  
123 purpose trust company organized under the laws of the State of New York, as  
124 depository for the Bonds pursuant to Section 3 of this ordinance.

125  
126        *Escrow Agent* means the trust company or state or national bank having  
127 powers of a trust company selected by the City to serve as escrow agent pursuant  
128 to Section 7 of this ordinance.

129

130        *Escrow Agreement* means the Escrow Deposit Agreement between the City  
131 and the Escrow Agent to be dated as of the date of Closing of the Bonds.

132  
133        *Escrow Fund* means the fund or account established by the Escrow Agent  
134 under the Escrow Agreement executed in connection with the defeasance and  
135 redemption of the Refunded Bonds.

136  
137        *Fair Market Value* means the price at which a willing buyer would purchase  
138 an investment from a willing seller in a bona fide, arm's-length transaction, except  
139 for specified investments as described in Treasury Regulation § 1.148-5(d)(6),  
140 including United States Treasury obligations, certificates of deposit, guaranteed  
141 investment contracts, and investments for yield restricted defeasance escrows.  
142 Fair Market Value is generally determined on the date on which a contract to  
143 purchase or sell an investment becomes binding, and, to the extent required by  
144 the applicable regulations under the Code, the term "investment" will include a  
145 hedge.

146  
147        *Federal Tax Certificate* means one or more certificates executed by the  
148 Designated Representative setting forth the requirements of the Code for  
149 maintaining the tax exemption of interest on the Bonds to be dated as of the date  
150 of Closing for such Bonds, and attachments thereto.

151  
152        *Government Obligations* means those obligations now or hereafter defined  
153 as such in chapter 39.53 RCW constituting direct obligations of, or obligations the  
154 principal of and interest on which are unconditionally guaranteed by, the United  
155 States of America, as such chapter may be hereafter amended or restated.

156  
157        *Letter of Representations* means the Blanket Issuer Letter of  
158 Representations from the City to DTC.

159  
160        *Mayor* means the duly elected and acting Mayor of the City or the successor  
161 to the duties of such office.

162  
163        *MSRB* means the Municipal Securities Rulemaking Board or any successors  
164 to its functions.

165  
166        *Official Statement* means the disclosure document(s) prepared and  
167 delivered in connection with the issuance of the Bonds.

168  
169        *Projects* mean the capital projects refinanced with proceeds of the  
170 Refunded Bonds.

171  
172        *Record Date* means the close of business for the Bond Registrar that is 15  
173 days preceding any interest and/or principal payment or redemption date.

174  
175        *Refunded Bonds* mean the outstanding 2010 Bonds.  
176



177       *Registered Owner* means the person named as the registered owner of a  
178 Bond in the Bond Register. For so long as the Bonds are held in book entry only  
179 form, DTC or its nominee shall be deemed to be the sole Registered Owner.

180  
181       *Rule* means the Commission's Rule 15c2-12 under the Securities Exchange  
182 Act of 1934, as the same may be amended from time to time.

183  
184       *Sale Document* means the Bond Purchase Contract or Certificate of Award,  
185 if any, executed by the Designated Representative in connection with the sale of  
186 the Bonds pursuant to Section 10 of this ordinance, which shall provide for the  
187 name, principal and interest payment dates and amounts, redemption/prepayment  
188 rights, and other terms to describe such Bonds as determined by the Designated  
189 Representative.

190  
191       *State* means the State of Washington.

192  
193       *2010 Bonds* mean the City's Limited Tax General Obligation Bonds, Series  
194 2010 (Taxable Build America Bonds – Direct Payment), issued pursuant to the  
195 2010 Ordinance as described in the recitals of this ordinance.

196  
197       *2010 Ordinance* means Ordinance No. 4272 passed by the Council on  
198 November 16, 2010, authorizing the issuance of the 2010 Bonds.

199  
200       *Underwriter* means any underwriter, in the case of a negotiated sale, or  
201 initial purchaser, in the case of a competitive sale, for the Bonds selected pursuant  
202 to Section 10.

203  
204       Section 2.       Findings; Purpose and Authorization of Bonds.

205  
206       (a)     *Findings.* The City has established a debt management policy which  
207 provides that the City may issue refunding bonds when, among other reasons,  
208 such refunding results in a sufficient net present value benefit after expenses.  
209 Council approval is required prior to the issuance of debt under City policy and  
210 State law. The Council hereby finds (1) it is in the best interest of the City and its  
211 taxpayers that it issue limited tax general obligation refunding bonds to defease  
212 and refund the Refunded Bonds for aggregate net present value debt service  
213 savings; (2) market conditions are changing and in order to accomplish the  
214 refunding authorized herein it is necessary that the Council adopt this ordinance;  
215 (3) the refunding bonds authorized herein will not be issued without further  
216 Council approval unless the parameters provided for in Section 10 can be satisfied;  
217 and (4) the adoption of this ordinance and the authorization of the Bonds is routine  
218 and consistent with City policy.

219  
220       (b)     *Purpose and Authorization of Bonds.* For the purpose of defeasing  
221 and refunding the Refunded Bonds and paying related costs of issuance, the City  
222 is hereby authorized to issue and sell limited tax general obligation refunding  
223 bonds in an aggregate principal amount not to exceed \$30,250,000 (the "Bonds").  
224

The Bonds shall be general obligations of the City, shall be designated "City of Kirkland, Washington, Limited Tax General Obligation Refunding Bonds, 2020," with any series or other designation as determined by the Designated Representative. The Bonds shall be dated as of the date of Closing; shall be fully registered as to both principal and interest; shall be in the denomination of \$5,000 each, or any integral multiple thereof, within a maturity; shall be numbered separately in such manner and with any additional designation as the Bond Registrar deems necessary for purposes of identification; shall bear interest from their date payable on the dates and commencing as provided in the Sale Document; and shall be subject to optional and/or mandatory redemption and mature on the dates and in the principal amounts set forth in the Sale Document, as approved and executed by the Designated Representative pursuant to Section 10 of this ordinance.

Section 3. Registration, Exchange and Payments.

(a) *Bond Registrar/Bond Register.* The City hereby specifies and adopts the system of registration approved by the Washington State Finance Committee from time to time through the appointment of a state fiscal agent. The City shall cause a bond register to be maintained by the Bond Registrar. So long as any Bonds remain outstanding, the Bond Registrar shall make all necessary provisions to permit the exchange or registration or transfer of Bonds at its designated office. The Bond Registrar may be removed at any time at the option of the Director of Finance and Administration upon prior notice to the Bond Registrar and a successor Bond Registrar appointed by the Director of Finance and Administration. No resignation or removal of the Bond Registrar shall be effective until a successor shall have been appointed and until the successor Bond Registrar shall have accepted the duties of the Bond Registrar hereunder. The Bond Registrar is authorized, on behalf of the City, to authenticate and deliver Bonds transferred or exchanged in accordance with the provisions of such Bonds and this ordinance and to carry out all of the Bond Registrar's powers and duties under this ordinance. The Bond Registrar shall be responsible for its representations contained in the certificate of authentication of the Bonds.

(b) *Registered Ownership.* The City and the Bond Registrar, each in its discretion, may deem and treat the Registered Owner of each Bond as the absolute owner thereof for all purposes (except as otherwise provided in this ordinance or in the Continuing Disclosure Certificate), and neither the City nor the Bond Registrar shall be affected by any notice to the contrary. Payment of any such Bond shall be made only as described below, but such Bond may be transferred as provided herein. All such payments made as described below shall be valid and shall satisfy and discharge the liability of the City upon such Bond to the extent of the amount or amounts so paid.

(c) *DTC Acceptance/Letters of Representations.* The Bonds initially shall be held in fully immobilized form by DTC acting as depository. The City has executed and delivered to DTC the Letter of Representations. Neither the City nor the Bond Registrar shall have any responsibility or obligation to DTC participants or the persons for whom they act as nominees (or any successor depository) with

respect to the Bonds in respect of the accuracy of any records maintained by DTC (or any successor depository) or any DTC participant, the payment by DTC (or any successor depository) or any DTC participant of any amount in respect of the principal of or interest on Bonds, any notice which is permitted or required to be given to Registered Owners under this ordinance (except such notices as shall be required to be given by the City to the Bond Registrar or to DTC (or any successor depository)), or any consent given or other action taken by DTC (or any successor depository) as the Registered Owner. For so long as any Bonds are held by a depository, DTC or its successor depository or its nominee shall be deemed to be the Registered Owner for all purposes hereunder, and all references herein to the Registered Owners shall mean DTC (or any successor depository) or its nominee and shall not mean the owners of any beneficial interest in such Bonds.

(d) *Use of Depository.*

(1) The Bonds shall be registered initially in the name of "Cede & Co.", as nominee of DTC, with one Bond maturing on each of the maturity dates for the Bonds in a denomination corresponding to the total principal therein designated to mature on such date. Registered ownership of such immobilized Bonds, or any portions thereof, may not thereafter be transferred except (A) to any successor of DTC or its nominee, provided that any such successor shall be qualified under any applicable laws to provide the service proposed to be provided by it; (B) to any substitute depository appointed by the Director of Finance and Administration pursuant to subsection (2) below or such substitute depository's successor; or (C) to any person as provided in subsection (4) below.

(2) Upon the resignation of DTC or its successor (or any substitute depository or its successor) from its functions as depository or a determination by the Director of Finance and Administration to discontinue the system of book entry transfers through DTC or its successor (or any substitute depository or its successor), the Director of Finance and Administration may hereafter appoint a substitute depository. Any such substitute depository shall be qualified under any applicable laws to provide the services proposed to be provided by it.

(3) In the case of any transfer pursuant to clause (A) or (B) of subsection (1) above, the Bond Registrar shall, upon receipt of all outstanding Bonds, together with a written request on behalf of the Director of Finance and Administration, issue a single new Bond for each maturity then outstanding, registered in the name of such successor or such substitute depository, or their nominees, as the case may be, all as specified in such written request of the Director of Finance and Administration.

(4) In the event that (A) DTC or its successor (or substitute depository or its successor) resigns from its functions as depository, and no substitute depository can be obtained, or (B) the Director of Finance and Administration determines that it is in the best interest of the Beneficial Owners of the Bonds that such owners be able to obtain physical bond certificates, the ownership of such Bonds may then be transferred to any person or entity as herein

provided, and shall no longer be held by a depository. The Director of Finance and Administration shall deliver a written request to the Bond Registrar, together with a supply of physical Bonds, to issue Bonds as herein provided in any authorized denomination. Upon receipt by the Bond Registrar of all then outstanding Bonds together with a written request on behalf of the Director of Finance and Administration to the Bond Registrar, new Bonds shall be issued in the appropriate denominations and registered in the names of such persons as are requested in such written request.

(e) *Registration of Transfer of Ownership or Exchange; Change in Denominations.* The transfer of any Bond may be registered and Bonds may be exchanged, but no transfer of any such Bond shall be valid unless it is surrendered to the Bond Registrar with the assignment form appearing on such Bond duly executed by the Registered Owner or such Registered Owner's duly authorized agent in a manner satisfactory to the Bond Registrar. Upon such surrender, the Bond Registrar shall cancel the surrendered Bond and shall authenticate and deliver, without charge to the Registered Owner or transferee therefor, a new Bond(s) (or Bonds at the option of the new Registered Owner) of the same date, maturity and interest rate and for the same aggregate principal amount in any authorized denomination, naming as Registered Owner the person or persons listed as the assignee on the assignment form appearing on the surrendered Bond, in exchange for such surrendered and cancelled Bond. Any Bond may be surrendered to the Bond Registrar and exchanged, without charge, for an equal aggregate principal amount of Bonds of the same date, maturity, and interest rate, in any authorized denomination. The Bond Registrar shall not be obligated to register the transfer of or to exchange any Bond during the 15 days preceding any principal payment or redemption date.

(f) *Bond Registrar's Ownership of Bonds.* The Bond Registrar may become the Registered Owner of any Bond with the same rights it would have if it were not the Bond Registrar, and to the extent permitted by law, may act as depository for and permit any of its officers or directors to act as a member of, or in any other capacity with respect to, any committee formed to protect the right of the Registered Owners or Beneficial Owners of Bonds.

(g) *Place and Medium of Payment.* Both principal of and interest on the Bonds shall be payable in lawful money of the United States of America. Interest on the Bonds shall be calculated on the basis of a year of 360 days and twelve 30-day months. For so long as all Bonds are held by a depository, payments of principal thereof and interest thereon shall be made as provided in accordance with the operational arrangements of DTC referred to in the Letter of Representations. In the event that the Bonds are no longer held by a depository, interest on the Bonds shall be paid by check or draft mailed to the Registered Owners at the addresses for such Registered Owners appearing on the Bond Register on the Record Date, or upon the written request of a Registered Owner of more than \$1,000,000 of Bonds (received by the Bond Registrar at least by the Record Date), such payment shall be made by the Bond Registrar by wire transfer to the account within the United States designated by the Registered Owner.

Principal of the Bonds shall be payable upon presentation and surrender of such Bonds by the Registered Owners at the designated office of the Bond Registrar.

If any Bond shall be duly presented for payment and funds have not been duly provided by the City on such applicable date, then interest shall continue to accrue thereafter on the unpaid principal thereof at the rate stated on such Bonds until it is paid.

Section 4. Redemption and Purchase of Bonds.

(a) *Redemption of Bonds.* The Bonds shall be subject to mandatory redemption to the extent, if any, as set forth in the applicable Sale Document and as approved by the Designated Representative pursuant to Section 10. The Bonds shall be subject to optional redemption and/or prepayment on the dates, at the prices and under the terms set forth in the applicable Sale Document approved by the Designated Representative pursuant to Section 10.

(b) *Purchase of Bonds.* The City reserves the right to accept an offer to purchase any of the Bonds at any time at a price deemed reasonable by the Designated Representative.

(c) *Selection of Bonds for Redemption.* If the Bonds are held in book-entry only form, the selection of particular Bonds within a maturity to be redeemed shall be made in accordance with the operational arrangements then in effect at DTC. If the Bonds are no longer held by a depository, the selection of such Bonds to be redeemed and the surrender and reissuance thereof, as applicable, shall be made as provided in the following provisions of this subsection (c). If the City redeems at any one time fewer than all of the Bonds having the same maturity date, the particular Bonds or portions of Bonds of such maturity to be redeemed shall be selected by lot (or in such manner determined by the Bond Registrar) in increments of \$5,000. In the case of an Bond of a denomination greater than \$5,000, the City and the Bond Registrar shall treat each Bond as representing such number of separate Bonds each of the denomination of \$5,000 as is obtained by dividing the actual principal amount of such Bond by \$5,000. In the event that only a portion of the principal sum of a Bond is redeemed, upon surrender of such Bond at the designated office of the Bond Registrar there shall be issued to the Registered Owner, without charge therefor, for the then unredeemed balance of the principal sum thereof, at the option of the Registered Owner, a Bond or Bonds of like maturity and interest rate in any of the denominations herein authorized.

(d) *Notice of Redemption or Prepayment.*

(1) Official Notice. For so long as the Bonds are held by a depository, notice of redemption (which notice may be conditional) shall be given in accordance with the operational arrangements of DTC as then in effect, and neither the City nor the Bond Registrar will provide any notice of redemption to any Beneficial Owners. Thereafter (if the Bonds are no longer held in uncertificated form), notice of redemption shall be given in the manner hereinafter provided.

Unless waived by any owner of Bonds to be redeemed, official notice of any such redemption shall be given by the Bond Registrar on behalf of the City by mailing a copy of an official redemption notice by first class mail at least 20 days and not more than 60 days prior to the date fixed for redemption to the Registered Owner of the Bond or Bonds to be redeemed at the address shown on the Bond Register or at such other address as is furnished in writing by such Registered Owner to the Bond Registrar.

All official notices of redemption shall be dated and shall state:

- (A) the redemption date,
- (B) the redemption price,
- (C) if fewer than all outstanding Bonds are to be redeemed, the identification by maturity (and, in the case of partial redemption, the respective principal amounts) of the Bonds to be redeemed,
- (D) any conditions to redemption,
- (E) that (unless such notice is conditional) on the redemption date the redemption price will become due and payable upon each such Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue from and after said date, and
- (F) the place where such Bonds are to be surrendered for payment of the redemption price, which place of payment shall be the designated office of the Bond Registrar.

On or prior to any redemption date, unless any condition to such redemption has not been satisfied or waived or notice of such redemption has been rescinded, the City shall deposit with the Bond Registrar an amount of money sufficient to pay the redemption price of all the Bonds or portions of Bonds which are to be redeemed on that date. The City retains the right to rescind any redemption notice and the related optional redemption of Bonds by giving notice of rescission to the affected registered owners at any time on or prior to the scheduled redemption date. Any notice of optional redemption that is so rescinded shall be of no effect, and the Bonds for which the notice of optional redemption has been rescinded shall remain outstanding.

(2) Effect of Notice; Bonds Due. If notice of redemption has been given and not rescinded or revoked, or if the conditions set forth in a conditional notice of redemption have been satisfied or waived, the Bonds or portions of Bonds to be redeemed shall, on the redemption date, become due and payable at the redemption price therein specified, and, if the Bond Registrar then holds sufficient funds to pay such Bonds at the redemption price, then from and after such date such Bonds or portions of Bonds shall cease to bear interest. Upon surrender of such Bonds for redemption in accordance with said notice, such Bonds shall be paid by the Bond Registrar at the redemption price. Installments of interest

469 due on or prior to the redemption date shall be payable as herein provided for  
470 payment of interest. All Bonds which have been redeemed shall be canceled by  
471 the Bond Registrar and shall not be reissued.

472  
473 (3) Additional Notice. If addition to the foregoing notice, further  
474 notice shall be given by the City as set out below, but no defect in said further  
475 notice nor any failure to give all or any portion of such further notice shall in any  
476 manner defeat the effectiveness of a call for redemption if notice thereof is given  
477 as above prescribed. Each further notice of redemption given hereunder shall  
478 contain the information required above for an official notice of redemption plus  
479 (A) the CUSIP numbers of all Bonds being redeemed; (B) the date of issue of the  
480 Bonds as originally issued; (C) the rate of interest borne by each Bond being  
481 redeemed; (D) the maturity date of each Bond being redeemed; and (E) any other  
482 descriptive information needed to identify accurately the Bonds being redeemed.  
483 Each further notice of redemption may be sent at least 20 days before the  
484 redemption date to each party entitled to receive notice pursuant to the Continuing  
485 Disclosure Certificate and with such additional information as the City shall deem  
486 appropriate, but such mailings shall not be a condition precedent to the redemption  
487 of such Bonds.

488  
489 (4) Amendment of Notice Provisions. The foregoing notice  
490 provisions of this Section 4, including but not limited to the information to be  
491 included in redemption notices and the persons designated to receive notices, may  
492 be amended by additions, deletions and changes in order to maintain compliance  
493 with duly promulgated regulations and recommendations regarding notices of  
494 redemption of municipal securities.

495  
496 Section 5. Form of Bonds. The Bonds shall be in substantially the form  
497 set forth in **Exhibit A**, which is incorporated herein by this reference.

498  
499 Section 6. Execution of Bonds. The Bonds shall be executed on behalf  
500 of the City with the manual or facsimile signatures of the Mayor and City Clerk of  
501 the City and the seal of the City shall be impressed, imprinted or otherwise  
502 reproduced thereon.

503  
504 In case either of the officers who shall have executed the Bonds shall cease  
505 to be an officer or officers of the City before the Bonds so signed shall have been  
506 authenticated or delivered by the Bond Registrar, or issued by the City, such Bonds  
507 may nevertheless be authenticated, delivered and issued and upon such  
508 authentication, delivery and issuance, shall be as binding upon the City as though  
509 those who signed the same had continued to be such officers of the City. Any Bond  
510 may be signed and attested on behalf of the City by such persons who at the date  
511 of the actual execution of such Bond, are the proper officers of the City, although  
512 at the original date of such Bond any such person shall not have been such officer  
513 of the City.

514  
515 Only such Bonds as shall bear thereon a Certificate of Authentication in the  
516 form set forth in **Exhibit A**, manually executed by the Bond Registrar, shall be  
517 valid or obligatory for any purpose or entitled to the benefits of this ordinance.

Such Certificate of Authentication shall be conclusive evidence that the Bonds so authenticated have been duly executed, authenticated and delivered hereunder and are entitled to the benefits of this ordinance.

Section 7. Refunding Plan; Application of Bond Proceeds.

(a) *Plan of Refunding.* The City proposes to defease and refund the Refunded Bonds as set forth herein. A portion of the proceeds of the Bonds shall be deposited with the Escrow Agent pursuant to the Escrow Agreement to be used immediately upon receipt thereof to defease the Refunded Bonds as authorized by the 2010 Ordinance and to pay costs of issuance and administrative costs of the refunding.

The proceeds of the Bonds deposited with the Escrow Agent shall be used to defease the Refunded Bonds and discharge the obligations thereon by the purchase of Acquired Obligations bearing such interest and maturing as to principal and interest in such amounts and at such times which, together with any necessary beginning cash balance, will provide for the payment of:

(1) interest on the Refunded Bonds as such becomes due on and prior to the Call Date; and

(2) the principal amount due and the redemption price (100% of the principal amount) of the Refunded Bonds on the Call Date.

Such Acquired Obligations shall be purchased at a yield not greater than the yield permitted by the Code and regulations relating to acquired obligations in connection with refunding bond issues.

(b) *Escrow Agent; Escrow Agreement.* The Designated Representative is hereby authorized to solicit proposals from and to select an Escrow Agent. A beginning cash balance, if any, and the Acquired Obligations shall be deposited irrevocably with the Escrow Agent in an amount sufficient to defease and/or redeem the Refunded Bonds. The proceeds of the Bonds remaining after acquisition of the Acquired Obligations and provision for the necessary beginning cash balance shall be used to pay expenses of the acquisition and safekeeping of the Acquired Obligations and costs of issuance of the Bonds and the administrative costs of the refunding. In order to carry out the purposes of this section, the Designated Representative is authorized and directed to execute and deliver the Escrow Agreement to the Escrow Agent.

(c) *Call for Redemption of 2010 Bonds.* The City hereby sets aside available funds of the City and sufficient funds out of the purchase of Acquired Obligations from proceeds of the Bonds to make the payments described above. The City further calls the callable Refunded Bonds for redemption on the Call Date in accordance with the provisions of the 2010 Ordinance authorizing the redemption and retirement of the 2010 Bonds prior to their fixed maturities. Said defeasance and call for redemption of the Refunded Bonds shall be irrevocable after the issuance of the Bonds and delivery of cash and/or Acquired Obligations



to the Escrow Agent. The Escrow Agent is hereby authorized and directed to provide for the giving of notices of defeasance and/or redemption of the Refunded Bonds in accordance with the applicable provisions of the 2010 Ordinance. The costs of publication of such notices shall be an expense of the City.

The Escrow Agent is hereby authorized and directed to pay to the paying agent for the Refunded Bonds, sums sufficient to pay, when due, the payments specified in this section. All such sums shall be paid from the moneys and Acquired Obligations deposited with the Escrow Agent, and the income therefrom and proceeds thereof. All such sums so paid shall be credited to the Refunding Account (which is hereby authorized to be created) or other funds created under the Escrow Agreement. All moneys and Acquired Obligations deposited with the Escrow Agent and any income therefrom shall be held, invested (but only at the direction of the Director of Finance and Administration) and applied in accordance with the provisions of this ordinance, the Escrow Agreement, and with the laws of the State for the benefit of the City and owners of the Refunded Bonds.

The City will take such actions as are found necessary to see that all necessary and proper fees, compensation and expenses of the Escrow Agent for the Refunded Bonds shall be paid when due.

Section 8. Tax Covenants. The City will take all actions necessary to assure the exclusion of interest on the Bonds from the gross income of the owners of the Bonds to the same extent as such interest is permitted to be excluded from gross income under the Code as in effect on the date of issuance of the Bonds, including but not limited to the following:

(a) *Private Activity Bond Limitation.* The City will assure that the proceeds of the Bonds are not so used as to cause the Bonds to satisfy the private business tests of Section 141(b) of the Code or the private loan financing test of Section 141(c) of the Code.

(b) *Limitations on Disposition of the Projects.* The City will not sell or otherwise transfer or dispose of (1) any personal property components of the projects refinanced with proceeds of the Bonds other than in the ordinary course of an established government program under Treasury Regulation § 1.141-2(d)(4) or (2) any real property components of such projects, unless it has received an opinion of nationally recognized Bond Counsel to the effect that such disposition will not adversely affect the treatment of interest on the Bonds as excludable from gross income for federal income tax purposes.

(c) *Federal Guarantee Prohibition.* The City will not take any action or permit or suffer any action to be taken if the result of such action would be to cause any of the Bonds to be "federally guaranteed" within the meaning of Section 149(b) of the Code.

(d) *Rebate Requirement.* The City will take any and all actions necessary to assure compliance with Section 148(f) of the Code, relating to the

615 rebate of excess investment earnings, if any, to the federal government, to the  
616 extent that such section is applicable to the Bonds.

617  
618 (e) *No Arbitrage.* The City will not take, or permit or suffer to be taken,  
619 any action with respect to the proceeds of the Bonds which, if such action had  
620 been reasonably expected to have been taken, or had been deliberately and  
621 intentionally taken, on the date of issuance of the Bonds would have caused the  
622 Bonds to be "arbitrage bonds" within the meaning of Section 148 of the Code.

623  
624 (f) *Registration Covenant.* The City will maintain a system for recording  
625 the ownership of each Bond that complies with the provisions of Section 149 of  
626 the Code until all Bonds have been surrendered and canceled.

627  
628 (g) *Record Retention.* The City will retain its records of all accounting  
629 and monitoring it carries out with respect to the Bonds for at least three years  
630 after the Bonds mature or are redeemed (whichever is earlier); however, if the  
631 Bonds are redeemed and refunded, the City will retain its records of accounting  
632 and monitoring at least three years after the earlier of the maturity or redemption  
633 of the obligations that refunded the Bonds.

634  
635 (h) *Compliance with Federal Tax Certificate.* The City will comply with  
636 the provisions of the Federal Tax Certificate with respect to the Bonds, which are  
637 incorporated herein as if fully set forth herein. The covenants of this section will  
638 survive payment in full or defeasance of the Bonds.

639  
640 Section 9. Debt Service Fund and Provision for Tax Levy Payments.  
641 The City hereby authorizes the creation of a fund or account to be used for the  
642 payment of debt service on the Bonds (the "Debt Service Fund"). No later than the  
643 date each payment of principal of or interest on the Bonds becomes due, the City  
644 shall transmit sufficient funds, from the Debt Service Fund or from other legally  
645 available sources, to the Bond Registrar for the payment of such principal or  
646 interest. Money in the Debt Service Fund may be invested in legal investments for  
647 City funds, but only to the extent that the same are acquired, valued and disposed  
648 of at Fair Market Value. Any interest or profit from the investment of such money  
649 shall be deposited in the Debt Service Fund.

650  
651 The City hereby irrevocably covenants and agrees for as long as any of the  
652 Bonds are outstanding and unpaid that each year it shall include in its budget and  
653 levy an *ad valorem* tax upon all the property within the City subject to taxation in  
654 an amount that will be sufficient, together with all other revenues and money of  
655 the City legally available for such purposes, to pay the principal of and interest on  
656 the Bonds as the same shall become due.

657  
658 The City hereby irrevocably pledges that the annual tax provided for herein  
659 to be levied for the payment of such principal and interest shall be within and as  
660 a part of the property tax levy permitted to cities without a vote of the electorate,  
661 and that a sufficient portion of each annual levy to be levied and collected by the  
662 City prior to the full payment of the principal of and interest on the Bonds will be  
663 and is hereby irrevocably set aside, pledged and appropriated for the payment of

the principal of and interest on the Bonds. The full faith, credit and resources of the City are hereby irrevocably pledged for the annual levy and collection of such taxes and for the prompt payment of the principal of and interest on the Bonds when due.

Section 10. Sale of Bonds.

(a) *Bond Sale.* The Council has determined that it would be in the best interest of the City to delegate to the Designated Representative for a limited time the authority to determine the method of sale for the Bonds in one or more series and to approve the final interest rates, maturity dates, redemption terms and principal maturities for the Bonds of each series.

The Designated Representative is hereby authorized to approve the issuance of the Bonds in one or more series and to approve whether any series of the Bonds shall be sold to an Underwriter through a competitive public sale or a negotiated public sale, as set forth below.

(b) *Negotiated Bond Sale.* If the Designated Representative determines that a series of the Bonds are to be sold by negotiated public sale, the Designated Representative shall solicit proposals from one or more qualified underwriting firms and shall select the Underwriter that submits the proposal that is in the best interest of the City. Such series of Bonds shall be sold to the Underwriter pursuant to the terms of a Bond Purchase Contract.

(c) *Competitive Sale.* If the Designated Representative determines that one or more series the Bonds are to be sold at a competitive public sale, the Designated Representative shall: (1) establish the date of the public sale; (2) establish the criteria by which the successful bidder will be determined; (3) request that a good faith deposit in an amount not less than one percent of the principal amount of the offering accompany each bid; (4) cause notice of the public sale to be given; and (5) provide for such other matters pertaining to the public sale as he or she deems necessary or desirable. Such Bonds shall be sold to the Underwriter pursuant to the terms of a Certificate of Award.

(d) *Sale Parameters.* Subject to the terms and conditions set forth in this Section 10, the Designated Representative is hereby authorized to approve the method of sale and the final interest rates, aggregate principal amount, principal maturities, and redemption rights for any series of the Bonds in the manner provided hereafter so long as:

(1) the aggregate principal amount of all Bonds does not exceed \$30,250,000,

(2) the final maturity date for the Bonds is no later than December 1, 2040,

(3) the Bonds of each series are sold for a price that results in a minimum aggregate net present value debt service savings over the Refunded

Bonds (calculated by deducting scheduled federal subsidy payments with respect to the Refunded Bonds from annual debt service and assuming continued sequestration of such payments) of at least 4.00%,

(4) the true interest cost for the Bonds of a series (in the aggregate) does not exceed 3.25%, and

(5) the aggregate purchase price for the Bonds of a series shall not be less than 95% of the aggregate stated principal amount of the Bonds.

Subject to the terms and conditions set forth in this section, the Designated Representative is hereby authorized to execute the appropriate Sale Document on behalf of the City.

Following the execution of the applicable Sale Document, the Designated Representative shall provide a report to the Council describing the final terms of the Bonds approved pursuant to the authority delegated in this section. The authority granted to the Designated Representative by this Section 10 to execute any Sale Document shall expire one year (365 days) after the effective date of this ordinance. If a Sale Document for the Bonds has not been executed by such date, the authorization for the issuance of such Bonds shall be rescinded, and such Bonds shall not be issued nor their sale approved unless such Bonds shall have been re-authorized by ordinance of the Council. The ordinance re-authorizing the issuance and sale of such Bonds may be in the form of a new ordinance repealing this ordinance in whole or in part or may be in the form of an amendatory ordinance approving a Sale Document or establishing terms and conditions for the authority delegated under this Section 10.

(e) *Delivery of Bonds; Documentation.* The proper officials of the City, including the Designated Representative, the City Manager, the Director of Finance and Administration, the Mayor and the City Clerk, are authorized and directed to undertake all action necessary for the prompt execution and delivery of the Bonds to the Underwriter and further to execute all closing certificates and documents required to effect the closing and delivery of the Bonds in accordance with the terms of the Sale Document. Such documents may include, but are not limited to, documents related to a municipal bond insurance policy delivered by an insurer to insure the payment when due of the principal of and interest on all or a portion of the Bonds as provided therein, if such insurance is determined by the Designated Representative to be in the best interest of the City.

Section 11. Preliminary and Final Official Statements. The Director of Finance and Administration and the City Manager are each hereby authorized to deem final the preliminary Official Statement(s) relating to the Bonds for the purposes of the Rule. The Director of Finance and Administration and the City Manager are each further authorized to approve for purposes of the Rule, on behalf of the City, the final Official Statement(s) relating to the issuance and sale of the Bonds and the distribution of the final Official Statement pursuant thereto with such changes, if any, as may be deemed to be appropriate.

761  
762       Section 12.   Undertaking to Provide Ongoing Disclosure. The City  
763 covenants to execute and deliver at the time of Closing of the Bonds a Continuing  
764 Disclosure Certificate. The Designated Representative is hereby authorized to  
765 execute and deliver a Continuing Disclosure Certificate upon the issuance, delivery  
766 and sale of the Bonds with such terms and provisions as such officer shall deem  
767 appropriate and in the best interests of the City.

768  
769       Section 13.   Defeasance. In the event that money and/or noncallable  
770 Government Obligations, maturing at such time or times and bearing interest to  
771 be earned thereon in amounts (together with such money, if necessary) sufficient  
772 to redeem and retire part or all of the Bonds in accordance with their terms, are  
773 set aside in a special account of the City to effect such redemption and retirement,  
774 and such money and the principal of and interest on such Government Obligations  
775 are irrevocably set aside and pledged for such purpose, then no further payments  
776 need be made into the Debt Service Fund for the payment of the principal of and  
777 interest on the Bonds so provided for, and such Bonds shall cease to be entitled  
778 to any lien, benefit or security of this ordinance except the right to receive the  
779 money so set aside and pledged, and such Bonds shall be deemed not to be  
780 outstanding hereunder. The City shall give or cause to be given written notice of  
781 defeasance in accordance with the Continuing Disclosure Certificate.

782  
783       Section 14.   Lost, Stolen or Destroyed Bonds. In case any Bond or Bonds  
784 shall be lost, stolen or destroyed, the Bond Registrar may authenticate and deliver  
785 a new Bond or Bonds of like date, number and tenor to the Registered Owner  
786 thereof upon the Registered Owner's paying the expenses and charges of the City  
787 and the Bond Registrar in connection therewith and upon his/her filing with the  
788 City evidence satisfactory to the City that such Bond was actually lost, stolen or  
789 destroyed and of his/her ownership thereof, and upon furnishing the City and/or  
790 the Bond Registrar with indemnity satisfactory to the City and the Bond Registrar.

791  
792       Section 15.   Severability; Ratification. If any one or more of the  
793 covenants or agreements provided in this ordinance to be performed on the part  
794 of the City shall be declared by any court of competent jurisdiction to be contrary  
795 to law, then such covenant or covenants, agreement or agreements, shall be null  
796 and void and shall be deemed separable from the remaining covenants and  
797 agreements of this ordinance and shall in no way affect the validity of the other  
798 provisions of this ordinance or of the Bonds. All acts taken pursuant to the authority  
799 granted in this ordinance but prior to its effective date are hereby ratified and  
800 confirmed.

801  
802       Section 16.   Corrections by Clerk. Upon approval of the City Attorney and  
803 Bond Counsel and without further action of the Council, the City Clerk is hereby  
804 authorized to make necessary corrections to this ordinance, including but not  
805 limited to the correction of clerical errors; references to other local, state or federal  
806 laws, codes, rules, or regulations; ordinance numbering and section/subsection  
807 numbering; and other similar necessary corrections.

808  
809        Section 17.    Effective Date of Ordinance. This ordinance shall be in full  
810 force and effect five days from and after its passage by the Kirkland City Council  
811 and publication of a summary of this ordinance in accordance with Kirkland  
812 Municipal Code 1.08.017.

813  
814        Passed by majority vote of the Kirkland City Council in open meeting this  
815 7th day of April, 2020.

816  
817        Signed in authentication thereof this \_\_\_\_ day of \_\_\_\_, 2020

\_\_\_\_\_  
Penny Sweet, Mayor

Attest:

\_\_\_\_\_  
Kathi Anderson, City Clerk

Approved as to Form:

\_\_\_\_\_  
Pacifica Law Group LLP, Bond Counsel



**Exhibit A**

Form of Bond

[DTC LANGUAGE]

UNITED STATES OF AMERICA

NO. \_\_\_\_

\$\_\_\_\_\_

STATE OF WASHINGTON

CITY OF KIRKLAND

LIMITED TAX GENERAL OBLIGATION REFUNDING BOND, 20[\_\_\_\_]

INTEREST RATE:      %

MATURITY DATE:

CUSIP NO.:

REGISTERED OWNER:      CEDE & Co.

PRINCIPAL AMOUNT:

The City of Kirkland, Washington (the "City"), hereby acknowledges itself to owe and for value received promises to pay to the Registered Owner identified above, or registered assigns, on the Maturity Date identified above, the Principal Amount indicated above and to pay interest thereon from \_\_\_\_\_, 20\_\_\_\_, or the most recent date to which interest has been paid or duly provided for until payment of this bond at the Interest Rate set forth above, payable on \_\_\_\_\_ 1, 20\_\_\_\_, and semiannually thereafter on the first days of each succeeding \_\_\_\_\_ and \_\_\_\_\_. Both principal of and interest on this bond are payable in lawful money of the United States of America. The fiscal agent of the State of Washington has been appointed by the City as the authenticating agent, paying agent and registrar for the bonds of this issue (the "Bond Registrar"). For so long as the bonds of this issue are held in fully immobilized form, payments of principal thereof and interest thereon shall be made as provided in accordance with the operational arrangements of The Depository Trust Company ("DTC") referred to in the Blanket Issuer Letter of Representations (the "Letter of Representations") from the City to DTC.

The bonds of this issue are issued under and in accordance with the provisions of the Constitution and applicable statutes of the State of Washington and Ordinance No. \_\_\_\_ duly passed by the City Council on April 7, 2020 (the "Bond Ordinance"). Capitalized terms used in this bond have the meanings given such terms in the Bond Ordinance.

This bond shall not be valid or become obligatory for any purpose or be entitled to any security or benefit under the Bond Ordinance until the Certificate of Authentication hereon shall have been manually signed by or on behalf of the Bond Registrar or its duly designated agent.

This bond is one of an authorized issue of bonds of like date, tenor, rate of interest and date of maturity, except as to number and amount in the aggregate principal amount of \$\_\_\_\_\_ and is issued pursuant to the Bond Ordinance to provide a portion of the funds



necessary (a) to defease and refund certain limited tax general obligation bonds of the City, and (b) to pay costs of issuance and costs related to the administration of the refunding.

[insert description of redemption or prepayment terms]

The City hereby irrevocably covenants and agrees with the owner of this bond that it will include in its annual budget and levy ad valorem taxes annually, within and as a part of the tax levy permitted to the City without a vote of the electorate, upon all the property subject to taxation in amounts sufficient, together with other money legally available therefor, to pay the principal of and interest on this bond as the same shall become due on and after such date. The full faith, credit and resources of the City are hereby irrevocably pledged for the annual levy and collection of such taxes and the prompt payment of such principal and interest.

The pledge of tax levies for payment of principal of and interest on the bonds may be discharged prior to maturity of the bonds by making provision for the payment thereof on the terms and conditions set forth in the Bond Ordinance.

It is hereby certified that all acts, conditions and things required by the Constitution and statutes of the State of Washington to exist and to have happened, been done and performed precedent to and in the issuance of this bond exist and have happened, been done and performed and that the issuance of this bond and the bonds of this issue does not violate any constitutional, statutory or other limitation upon the amount of bonded indebtedness that the City may incur.

IN WITNESS WHEREOF, the City of Kirkland, Washington, has caused this bond to be executed by the manual or facsimile signatures of the Mayor and the City Clerk and the seal of the City to be imprinted, impressed or otherwise reproduced hereon as of this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

[SEAL]

CITY OF KIRKLAND, WASHINGTON

By \_\_\_\_\_/s/ manual or facsimile  
Mayor

ATTEST:

\_\_\_\_\_/s/ manual or facsimile  
City Clerk

CERTIFICATE OF AUTHENTICATION

Date of Authentication: \_\_\_\_\_

This bond is one of the bonds described in the within-mentioned Bond Ordinance and is one of the Limited Tax General Obligation Refunding Bonds, 20\_\_\_\_, of the City of Kirkland, Washington, dated \_\_\_\_\_, 20\_\_\_\_.

WASHINGTON STATE FISCAL AGENT, as  
Bond Registrar

By \_\_\_\_\_

PUBLICATION SUMMARY  
OF ORDINANCE NO. 4719

AN ORDINANCE OF THE CITY OF KIRKLAND, WASHINGTON, AUTHORIZING THE ISSUANCE OF LIMITED TAX GENERAL OBLIGATION REFUNDING BONDS IN THE AGGREGATE PRINCIPAL AMOUNT OF NOT TO EXCEED \$30,250,000 FOR THE PURPOSE OF REFUNDING CERTAIN OUTSTANDING GENERAL OBLIGATION BONDS OF THE CITY AND PAYING COSTS OF ISSUING THE BONDS; DELEGATING CERTAIN AUTHORITY TO APPROVE THE METHOD OF SALE AND FINAL TERMS OF THE BONDS; AND AUTHORIZING OTHER RELATED MATTERS.

Section 1. Defines certain capitalized terms used in the Ordinance.

Section 2. Sets forth findings of the Council, and authorizes the issuance and sale of the City's limited tax general obligation refunding bonds in an aggregate principal amount not to exceed \$30,250,000 (the "Bonds") for the purpose of defeasing and refunding the City's outstanding Limited Tax General Obligation Bonds, 2010A (Taxable Build America Bonds – Direct Payment) (the "Refunded Bonds") and paying costs of issuance of the Bonds.

Section 3. Adopts a system of registration and exchange for the Bonds and describes the arrangements for paying principal of and interest on the Bonds.

Section 4. Provides for the redemption of the Bonds prior to their scheduled maturities to the extent, if any, set forth in the applicable bond purchase agreement or certificate of award (the "Sale Document") pursuant to which the Bonds will be sold to an underwriter.

Section 5. Describes the form of the Bonds.

Section 6. Specifies the manner of the execution and authentication of the Bonds.

Section 7. Authorizes the application of Bond proceeds for the defeasance and refunding of the Refunded Bonds in accordance with an escrow deposit agreement to be executed by the City and an escrow agent, and calls the callable Refunded Bonds for redemption on their earliest call date.

Section 8. Covenants that the City will take all actions necessary to exclude interest on the Bonds from the gross income of the owners for federal income tax purposes.

Section 9. Provides for the payment of debt service on the Bonds from property tax levies permitted to the City without a vote of the people or from other legally available sources, and pledges the full faith, credit and resources of the City for the levy and collection of such taxes and the prompt payment of debt service on the Bonds.

Section 10. Delegates authority, for a limited time, to determine whether the Bonds will be offered through a competitive public sale or a negotiated

public sale and to execute a Sale Document specifying the financial terms of the Bonds within parameters adopted by the City Council; and authorizes all actions necessary to execute and deliver the Bonds in accordance with the terms of the Sale Document.

Section 11. Delegates authority to approve the preliminary and final Official Statements in connection with the offering of the Bonds to the public.

Section 12. Covenants that the City will execute and deliver at closing a continuing disclosure certificate for the benefit of the owners of the Bonds.

Section 13. Sets forth conditions under which the Bonds may be defeased.

Section 14. Provides for the authentication and delivery of new Bonds as may be necessary to replace any Bonds that are lost, stolen or destroyed.

Section 15. Provides for the severability of the Ordinance and ratifies prior actions taken in furtherance of the purposes of the Ordinance.

Section 16. Authorizes the City Clerk to correct any clerical errors in the Ordinance, with approval of the City Attorney and the City's bond counsel.

Section 17. States the effective date of the Ordinance.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the \_\_\_\_ day of \_\_\_\_, 2020.

I certify that the foregoing is a summary of Ordinance No. 4719 approved by the Kirkland City Council for summary publication.

---

Kathi Anderson, City Clerk

**CITY OF KIRKLAND****City Manager's Office**

123 Fifth Avenue, Kirkland, WA 98033 425.587.3001

[www.kirklandwa.gov](http://www.kirklandwa.gov)**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Joe Sanford, Fire Chief  
Andreana Campbell, Management Analyst

**Date:** March 31, 2020

**Subject:** COMMUNITY SAFETY ADVISORY GROUP RECOMMENDATION TO COUNCIL REGARDING A POSSIBLE NOVEMBER 2020 FIRE AND EMERGENCY MEDICAL SERVICES BALLOT MEASURE.

**RECOMMENDATION:**

Kirkland City Council:

- Receives the attached report from the Community Safety Advisory Group (ComSAG) providing a summary of recent discussions to explore a potential Fire and Emergency Medical Services ballot measure for the November 3, 2020 general election.
- Reviews and provides feedback on attached Resolution R-5413 accepting the ComSAG report.
- Reviews and provides feedback on updated survey questions from EMC Research.

Unless the Council is prepared to take action at the April 7, 2020 Council meeting, staff will look to the Council for action on Resolution R-5413 at the April 21, 2020 Council meeting.

**BACKGROUND DISCUSSION:***COVID-19*

The Community Safety Advisory Group process began last October, before the COVID-19 pandemic began. As the outbreak has escalated and the economic impact has increased, the City Manager, City Attorney, Fire Chief, Emergency Manager and Finance Director and other members of the city's leadership team have evaluated whether a fire ballot measure should continue to be pursued in 2020. The staff recommendation is to proceed for several key reasons. The leadership team evaluated whether the recommended elements of the ComSAG would have increased the city's ability to respond to a pandemic like COVID-19. The conclusion was that proposed elements would have significantly improved the city's response. The additional 24 firefighter/EMTs would have buttressed the department's ability to respond to 911 calls when over 30 Kirkland firefighters were in quarantine and isolation. With a new Fire Station 27, the old 27 could have been converted to a quarantine facility and allowed Station 21 to remain online during the pandemic. In addition, the proposed renovations to the existing Station 21, 22, and 26 would provide "hot zone" decontamination rooms separate from living quarters, reducing the chance of spreading the virus after 911 calls with COVID-19 patients. Finally, with the likely budget challenges created by the economic impacts of COVID-19, the city will have no financial ability to add any of these additional public safety investments without a voter approved funding source. For these reasons and more, staff is recommending that Council continues with the ballot measure as all proposed investments would be useful not only in response to this pandemic, but to the City of Kirkland in all emergency scenarios.

*ComSAG*

Fire and Emergency Medical Services are a critical public safety component of the quality of life for all residents, businesses, and visitors to the City. These services belong to the entire community and it is critical that the entire community understand and support the need for these new investments for any ballot measure to be successful. For that reason, staff recommended establishing a Community Safety Advisory Group (ComSAG) to identify the capital and operating elements to be included in fire/EMS ballot measure and the funding mechanisms to be placed on the ballot.

At the September 17, 2019 Council meeting, Council adopted Resolution R-5386, authorizing the City Manager to engage the following stakeholders, suggested by staff and revised by the Council. The check marks indicate stakeholder groups that appointed a representative to attend all meetings.

Community Safety Advisory Group	
✓ Kiwanis	✓ Chair/Convener - Mayor Penny Sweet
✓ Kirkland Downtown Association	Rotary
Kirkland Chamber of Commerce	✓ Kirkland Safe
✓ Northwest University	✓ Kirkland Indivisible
✓ Lake WA Institute of Tech	✓ Google
✓ Lake WA School District	✓ Realtor
Kirkland Interfaith Network	✓ Builder/Developer
Merrill Gardens	✓ Aegis Living Kirkland
✓ Two Community Members at Large	The Sophia Way
Eastside Business Association	✓ Kirkland Business Roundtable
Evergreen Hospital	Hopelink
✓ Houghton Community Council	Planning Commission
✓ Senior Council	✓ Youth Council
✓ Evergreen Hill	✓ Fill Hill
✓ Highlands	✓ Juanita
Central Houghton	✓ Everest
✓ Lakeview	✓ Market
✓ Moss Bay	✓ N. Rose Hill
✓ S. Rose Hill/Bridle Trails	Norkirk

Under Section 2 of Resolution R-5386 two additional members were appointed by the City Manager to be part of the ComSAG representing Kirkland Emergency Communications Team (KECT), and the Totem Lake neighborhood. With the addition of these two members, the ComSAG was comprised of 30 members overall.

Modeled after the 2012 Park Funding Exploratory Committee (PFEC) that resulted in the successful 2012 voter-approved Park Levy, the ComSAG met for the duration of October 2019 to February 2020, with attendance averaging nearly 80%.

All meeting materials and recorded presentations can be found on the [City's website](#). Below are the meeting dates and curriculum topics.

Date	Curriculum/Timeline
<b>2019</b>	
September 3	Council provided direction on draft resolution and workplan
September 17	Council adopted resolution R-5386
<b>Community Safety Advisory Group Begins</b>	
October 29	Fire/EMS 101 – What do we do and how - facilities, staffing
November 7	Station Renovations for Seismic Resiliency and Firefighter Health and Safety
November 21	Station Tours
December 5	Potential capital and operating ballot measure elements and costs
December 19	Kirkland budget overview/How property tax works, funding options
<b>2020</b>	
<del>January 15</del>	<del>Evaluate Options 1 – Needed investments and how to pay for them (snowed out)</del>
January 29	Evaluate Options 1 – Needed investments and how to pay for them
February 11	Evaluate Options 2 – Needed investments and how to pay for them
February 26	Final Recommendation – Investments and ballot measure options
<b>City Council Involvement Begins</b>	

### **COMSAG RECOMMENDATION:**

The full recommendation from the ComSAG is included as Attachment A. The recommendation outline includes:

- ComSAG members
- Executive Summary
- Process
- Timing and Size of the Ballot Measure
- ComSAG Final Recommendation
- Next Steps
- Appendices A – G
  - A. Resolution R-5386
  - B. Ballot Measure Element Flashcards
  - C. Fire Department Strategic Plan
  - D. Washington Survey and Rating Bureau Report
  - E. Dec 19, 2020 Top of Mind Exercise
  - F. Survey Results from Ballot Measure Financing

- G. Key Messaging
- H. Additional Group Questions
- I. Survey Results from Ballot Measure Elements Ranking
- J. 2018 Fire Department Annual Report
- K. Staff Photos and Biographies

The Community Safety Advisory Group (ComSAG) is recommending two measures be placed on the November 3, 2020 ballot Fire and Emergency Medical Services. The first measure would be a permanent levy to staff 24 new firefighter/EMTs to improve response times. The second measure would be an excess levy bonded over 30 years to fund new fire station 27 in Totem Lake, and station seismic renovations and firefighter health and safety improvements to station 21 in Forbes Creek, 22 in Houghton, and 26 in N. Rose Hill to improve fire and emergency medical call response times and firefighter safety.

The following recommendation to the Council was made after eight, three-hour long meetings that spanned five months dedicated to educating and deliberating on what investments this potential ballot measure should fund. The ComSAG wanted to note that while there are three categories of what appear to be differing levels of importance, they felt that all elements introduced to them had significant value to the community. The difficult decisions came down to wanting to be aware of potential voter fatigue and overall cost. Below are definitions of the three categories the ComSAG used to place both capital and operating elements:

- **Definitely Include:** Elements ComSAG recommends the City Council should include in the ballot measure.
- **For Council Consideration:** Elements ComSAG feels have a strong value and recommends the City Council review pros and cons and decide whether to include.
- **Not This Ballot Measure:** Elements ComSAG feels are not ready for this measure and/or could be funded outside of this ballot measure.

For each category of recommendations, there is a chart listing capital investments first, followed by operating investments, with overall totals at the bottom. The "Definitely Include" chart shows which year each capital project is estimated to begin, while capital investments in categories outside "Definitely Include" are listed in 2026 dollars. All operating investments in the three charts show yearly costs beginning in 2021. All charts have the tax rate per \$1,000 of assessed valuation, and annual property tax impact to a median-valued home. Please note, the costs and calculations presented in the following charts were the cost of the investments at the time they were presented to the ComSAG. Those numbers are subject to change as the City Manager's interdepartmental recommendation review team continues to meet and refine each project. More information is provided in the paragraph below as well as in the section titled "Recommendation Review Team" later in the memorandum.

At the March 17, 2020 Council meeting staff highlighted that after the final ComSAG meeting, the City Manager convened an interdepartmental team consisting of staff from the City Manager's Office, the Finance Department, the Fire Department, the Public Works' Capital Improvement Plan team and TCA, the architectural firm in charge of renovating and constructing the City's fire stations. This team met twice in March to review operating overhead and internal service charges, and the elements and sequencing of all capital construction, and financing. The charts in the "Recommendation Review Team" section depict updated costs as of the team's last meeting on March 27, 2020 with capital projects being sequenced starting in 2021 and finishing in 2025. As this team continues to refine each project, cost, timelines, and tax rates for individual elements may change, ultimately impacting the total cost of the ballot measures.

Staff is also working alongside the City Attorney's Office, Bond Counsel, and outside legal counsel to present draft ordinances to the Council as soon as the Council meetings in June. More detail and next steps are presented at the end of the memorandum.



Below is the list of **capital and operating elements** in the **"Definitely Include"** category:

“Definitely Include” Capital Elements		Project Cost	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median- Valued Home*	
Juanita Station 27 design, build, and relocate east of I-405		\$23,340,000	\$1,285,079	\$0.04076	\$29.76	
Houghton Station 22 renovation and modernization		\$10,620,000	\$375,503	\$0.01855	\$13.54	
Forbes Creek Station 21 renovation and modernization		\$6,820,000	\$584,728	\$0.01191	\$8.70	
N. Rose Hill Station 26 renovation and modernization		\$9,410,000	\$518,106	\$0.01643	\$12.00	
Purchase of a 2 <sup>nd</sup> Ladder Truck		\$1,604,407	\$88,337	\$0.00280	\$2.05	
Design and build a Training Building at the new N. Juanita Station 24		\$6,222,853	\$342,625	\$0.01087	\$7.93	
Total Capital		\$58,017,260	\$3,194,378	\$0.10133	\$73.97	
“Definitely Include” Operating Elements		FTEs	Annual Cost**	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median- Valued Home
Dedicated Aid Car at Houghton Fire Station 22		10	\$1,626,102	\$1,626,102	\$0.05158	\$37.65
Cross staff new N. Juanita Station 24		5	\$813,051	\$813,051	\$0.02579	\$18.83
Additional Firefighter/EMT		5	\$813,051	\$813,051	\$0.02579	\$18.83
12 Hour EMS Transport		4	\$650,441	\$650,441	\$0.02063	\$15.06
Total Operating		24	\$3,902,645	\$3,902,645	\$0.12380	\$90.37
Total	Capital		\$58,017,260	\$3,194,378	\$0.10133	\$73.97
	Operating		\$3,902,645	\$3,902,645	\$0.12380	\$90.37
	Total			\$7,097,023	\$0.22513	\$164.34

\*According to the King County Assessor's Office, the median home value in Kirkland in 2020 is \$730,000.

\*\*First Year Costs Shown

Below is the list of **capital and operating elements** in the **"For Council Consideration"** category:

"For Council Consideration" Capital Elements		Cost in 2026 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home	
Training Props – Option B		\$7,786,076	\$428,694	\$0.01360	\$9.93	
Converting Current Station 27 into a Logistics Center		\$753,000	\$41,459	\$0.00132	\$0.96	
Total Capital		\$8,539,076	\$470,153	\$0.01492	\$10.89	
"For Council Consideration" Operating Elements		FTEs	Cost in 2021 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Hire an Additional Fire Inspector		1	\$173,596	\$173,596	\$0.00551	\$4.02
Hire an Additional Battalion Chief Aide		5	\$813,051	\$813,051	\$0.02579	\$18.83
Total Operating		6	\$986,647	\$986,647	\$0.03130	\$22.85
Total	Capital		\$8,539,076	\$470,153	\$0.01360	\$10.89
	Operating		\$986,647	\$986,647	\$0.03130	\$22.85
	Total			\$1,456,800	\$0.04490	\$33.74

Below is the list of **operating elements** in the **"Not this Ballot Measure"** category:

"Not this Ballot Measure" Operating Elements		FTEs	Cost in 2021 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Additional Training Officer		1	\$185,723	\$185,723	\$0.00589	\$4.30
Public Information Officer		1	\$125,419	\$125,419	\$0.00398	\$2.90
<b>Total Operating</b>		<b>2</b>	<b>\$311,142</b>	<b>\$311,142</b>	<b>\$0.00987</b>	<b>\$7.20</b>
<b>Total</b>	Capital		-	-	-	-
	Operating		\$311,142	\$311,142	\$0.00987	\$7.20
	Total		\$311,142	<b>\$311,142</b>	<b>\$0.00987</b>	<b>\$7.20</b>

If Council recommends including all elements in every category the proposed measure would be \$0.116 for capital and \$0.165 for staffing, a total of \$0.28, a difference of \$0.056 per \$1,000 of assessed valuation. The annual estimated property tax increase for a home with a median assessed valuation of \$730,000 would be \$205.28, a difference of \$40.94 when comparing to the elements recommended in the "Definitely Include" category. The ComSAG expressed a preference that any final ballot measure total come in below an annual cost of \$200 for the median assessed valued home.

### **SURVEY UPDATE:**

First, in response to Council inquiries, staff asked whether EMC Research still feels it is valuable to conduct the survey this Spring due to the COVID-19 pandemic. EMC Research does believe a good survey can be conducted and that it will have value as COVID-19 will likely be present in some way throughout the year. How these investments impact the City's COVID-19 responses will likely be an issue that Kirkland voters weigh as they consider voting for or against the ballot measure. EMC recommends proceeding. However, EMC does recommend waiting until late April to conduct the survey.

Since the March 17, 2020 Council meeting, staff worked with EMC Research to incorporate Council's feedback on the survey questions. The latest version of the survey can be seen in Attachment B. Council suggested the survey might be too long in length and potentially redundant. EMC Research noted that they are open to feedback on which portions to remove, but urged staff to consider keeping the progression of questions the same because the survey gauges interest best by asking slightly different variations of the same question at three points: when survey takers have no information, some information, and more information. This can be seen in questions 20-31 in the survey.

Lastly, EMC Research suggested not mentioning that this potential Fire and EMS ballot measure is part of a larger, two-phased public safety process beginning in 2018. EMC felt that most voters will not be aware of this information when they cast their ballot, so making the survey takers aware of it might not provide the City with the most accurate gauge of interest. After Council review on April 7, EMC will prepare the survey for Public Disclosure Commission review and for the field. Staff will also create a web version of the survey that will be posted after the EMC survey is concluded.

### **RECOMMENDATION REVIEW TEAM:**

As mentioned early in the memorandum, this interdepartmental team met twice this month and updated the preliminary ballot measure numbers. Land acquisition costs were added to the Station 27 project and all capital projects were given an estimated construction timeline to allow more accurate costing. The operating costs had internal service charges and overhead incorporated. Please note the team is continuing to meet and refine costs, and staff will keep the Council informed as the overall totals change. Below are the charts with updated numbers as of March 27, 2020.

Below is the updated list of **capital and operating elements** in the **"Definitely Include"** category:

“Definitely Include” Sequenced Updated Capital Elements		Project Cost	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home*	
Juanita Station 27 design, build, and relocate east of I-405 in 2022		\$25,900,000	\$1,426,000	\$0.04576	\$33.40	
Houghton Station 22 renovation and modernization in 2022		\$9,100,000	\$500,000	\$0.01604	\$11.71	
Forbes Creek Station 21 renovation and modernization in 2024		\$6,300,000	\$350,000	\$0.01113	\$8.13	
N. Rose Hill Station 26 renovation and modernization in 2023		\$8,360,000	\$460,000	\$0.01477	\$10.78	
Purchase of a 2 <sup>nd</sup> Ladder Truck in 2021		\$1,600,000	\$88,000	\$0.00280	\$2.07	
Design and build a Training Building at the new N. Juanita Station 24 in 2025		\$8,725,000	\$480,000	\$0.01541	\$11.25	
Total Capital		\$59,985,000	\$3,300,000	\$0.10595	\$77.34	
“Definitely Include” Updated Operating Elements		FTEs	Annual Cost**	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Dedicated Aid Car at Houghton Fire Station 22		10	\$1,690,000	\$1,690,000	\$0.05430	\$39.19
Cross staff new N. Juanita Station 24		5	\$846,000	\$846,000	\$0.02715	\$19.60
Additional Firefighter/EMT		5	\$846,000	\$846,000	\$0.02715	\$19.60
12 Hour EMS Transport		4	\$677,000	\$677,000	\$0.02172	\$15.68
Ongoing Costs			\$352,000	\$352,000	\$0.01128	\$8.15
Total Operating		24	\$4,411,000	\$4,411,000	\$0.14162	\$102.22
Total	Capital		\$59,985,000	\$3,300,000	\$0.10595	\$77.34
	Operating		\$4,411,000	\$4,411,000	\$0.14162	\$102.22
	Total			\$7,711,000	\$0.24757	\$179.56

\*According to the King County Assessor's Office, the median home value in Kirkland in 2020 is \$730,000.

\*\*First year costs shown

Below is the updated list of **capital and operating elements** in the **"For Council Consideration"** category:

“For Council Consideration” Updated Capital Elements			Cost in 2026 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Training Props – Option B in 2026			\$7,860,000	\$429,000	\$0.01367	\$10.04
Converting Current Station 27 into a Logistics Center in 2026			\$753,000	\$41,500	\$0.00133	\$0.97
Total Capital			\$8,615,000	\$470,500	\$0.01500	\$11.01
“For Council Consideration” Updated Operating Elements		FTEs	Annual Cost	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Hire an Additional Fire Inspector		1	\$180,000	\$180,000	\$0.00578	\$4.17
Hire an Additional Battalion Chief Aide		5	\$846,000	\$846,000	\$0.02751	\$19.60
Ongoing Costs			\$88,000	\$88,000	\$0.00282	\$2.03
Total Operating		6	\$1,114,000	\$1,026,000	\$0.03611	\$25.80
Total	Capital		\$8,615,000	\$470,500	\$0.01500	\$11.01
	Operating		\$1,114,000	\$1,114,000	\$0.03611	\$25.80
	Total			\$1,584,500	\$0.05111	\$36.81

Below is the updated list of **operating elements** in the **"Not this Ballot Measure"** category:

<b>"Not this Ballot Measure" Updated Operating Elements</b>		<b>FTEs</b>	<b>Annual Cost</b>	<b>Annual Cost</b>	<b>Tax Rate /\$1,000AV</b>	<b>Annual Impact to Median- Valued Home</b>
Additional Training Officer		1	\$194,000	\$194,000	\$0.00617	\$4.45
Public Information Officer		1	\$132,000	\$132,000	\$0.00424	\$3.06
Ongoing Costs			\$30,000	\$30,000	\$0.00096	\$0.69
<b>Total Operating</b>		<b>2</b>	<b>\$356,000</b>	<b>\$356,000</b>	<b>\$0.01137</b>	<b>\$8.20</b>
<b>Total</b>	Capital		-	-	-	-
	Operating		\$356,000	\$356,000	\$0.01137	\$8.20
	<b>Total</b>		<b>\$356,000</b>	<b>\$356,000</b>	<b>\$0.01137</b>	<b>\$8.20</b>

### **RESOLUTION R-5413 ELEMENTS**

Attached to this memorandum is Resolution R-5413. If Council adopts resolution R-5413, Council is accepting the Community Safety Advisory Committee report, and directing the City Manager to return to the Council with two ballot measure ordinances. One ordinance authorizing a permanent levy be placed on the ballot to fund operating investments, and a second ordinance authorizing a 30-year bond be placed on the ballot to fund capital investments. These two ballot measure ordinances would be brought back to the Council for review after the survey results are compiled, and no later than the second Council meeting in July.

### **NEXT STEPS:**

At the March 17, 2020 meeting, Council received a preliminary update on the ComSAG's recommendation, and is receiving the full report at the April 7, 2020 meeting along with updated survey questions incorporating Council's feedback. At the April 21, 2020 Council meeting, staff will be seeking action from the Council to accept the ComSAG report by adopting Resolution R-5413.

Before EMC Research conducts the survey in late April or early May, the survey will be evaluated by the Public Disclosure Commission. Staff will bring results back to the Council in June after the results are compiled. The July 21<sup>st</sup> meeting marks the last day for Council to take final action to place these measures on the ballot. A timeline is outlined below with deadlines and an accelerated timeline if Council would like to act faster.

<b>Election Calendar</b>	<b>Accelerated Calendar</b>	<b>Item</b>
March 17		Staff Presented Preliminary Update on ComSAG Recommendation to Council
April 7		Staff to present Full ComSAG Recommendation to Council
April 21		Council to Adopt Resolution R-5413 Accepting Full ComSAG Report
April/May		EMC Research to Conduct Community Survey
May/June		Staff to Bring Survey Responses to Council
July 7 or 21	June 2 or 16	Ballot Measure Public Hearing
July 7	June 6	Pro/Con Committee Appointments Authorized
July 21	June 16	Pro/Con Committee Appointments Confirmed
July 21	June 16	Last Council Meeting to Approve Ballot Measure Ordinance
August 4		Ballot Measure Resolution due to King County
August 7		Explanatory Statement Due
August 11		Pro/Con Statements Due
November 3		General Election

## RESOLUTION R-5413

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND ACCEPTING THE COMMUNITY SAFETY ADVISORY GROUP REPORT AND DIRECTING THE CITY MANAGER TO RETURN TO THE COUNCIL WITH TWO ORDINANCES AUTHORIZING THE CITY TO PLACE TWO MEASURES ON THE BALLOT.

1 WHEREAS, In 2011, the City Council ("Council") engaged  
2 the services of Emergency Services Consulting International  
3 ("ESCI") to  
4 conduct an organizational review of the Fire Department of the  
5 City of  
6 Kirkland ("City"). Since 2012, Fire Department staff has worked  
7 with  
8 other City departments and the City Manager's Office to  
9 implement  
10 certain ESCI recommendations, including through the budget  
11 process, and  
12

13 WHEREAS, On February 19, 2019, the Council adopted the  
14 2019- 2020 City Work Program which ranked "exploring a  
15 potential ballot measure in 2020 to fund Fire Station  
16 modernization and enhanced operations to further the goal of  
17 Public Safety" as its number one priority, and  
18

19 WHEREAS, On September 17, 2019 the Council adopted  
20 Resolution R-5386 authorizing the City Manager to engage a  
21 Community Safety Advisory Group ("ComSAG") to meet for the  
22 duration of October 2019 through February 2020 to recommend  
23 to the Council ballot measure options on investments and  
24 financing, and  
25

26 WHEREAS, The ComSAG recommends placing two  
27 measures on the November 2020 ballot, and  
28

29 WHEREAS, The first measure consists of a 30-year excess  
30 levy to fund the cost of relocating and building a new fire station  
31 27 near Totem Lake, building a new training center near fire  
32 station 24, providing seismic and other renovations to fire stations  
33 21 in Forbes Creek, 22 in Houghton, and 26 in north Rose Hill to  
34 improve firefighter health and safety, and purchasing a second  
35 ladder truck, and  
36

37 WHEREAS, The second measure consists of a permanent  
38 levy lid lift to fund the hiring of twenty-four new firefighter/EMTs  
39 to provide a dedicated aid car at fire station 22 in Houghton, fully  
40 staff fire station 24 in north Juanita, provide daily 12 hour  
41 dedicated patient transport during peak hours, and fund five new  
42 firefighter/EMTs to improve response times throughout the City,  
43 and  
44



45 WHEREAS, The ComSAG's recommendations used an  
46 estimated annual operating cost to fund hiring twenty-four new  
47 firefighter/EMTs as \$3,900,000, and annual debt service for  
48 capital as \$3,320,000 during ComSAG deliberations, and  
49

50 WHEREAS, The City Manager has engaged an  
51 interdepartmental "recommendation review team" to refine  
52 ComSAG operating costs and project costs and sequencing, which  
53 may impact the overall totals, and  
54

55 WHEREAS, The capital investments would be financed by  
56 a 30-year excess levy, and the operating investments would be  
57 financed by a permanent levy lid lift, and  
58

59 WHEREAS, Council received a preliminary update of the  
60 ComSAG's recommendation at the March 17, 2020 Council  
61 Meeting; and  
62

63 WHEREAS, At the April 7, 2020 Council meeting, Council  
64 reviewed the ComSAG's full recommendation and may take action  
65 to place these separate measures on the November 3, 2020 ballot  
66 at any subsequent Council meeting but no later than July 21,  
67 2020; and  
68

69 NOW, THEREFORE, the City Council of the City of Kirkland  
70 do  
71 ordain as follows:  
72

73 Section 1. The City Council hereby accepts the Community  
74 Safety Advisory Committee report.  
75

76 Section 2. The City Manager is hereby directed to return to the  
77 Council with an ordinance authorizing a proposition to the  
78 qualified voters of the city of Kirkland at the November 3, 2020  
79 general election to impose a property tax excess levy pursuant  
80 to chapter 84.52 RCW.  
81

82 Section 3. The City Manager is further directed to return to the  
83 Council with an ordinance authorizing a proposition to the  
84 qualified voters of the city of Kirkland at the November 3, 2020  
85 general election to impose a property tax levy lid lift pursuant to  
86 chapter 84.55 RCW.  
87

88 Passed by majority vote of the Kirkland City Council in open  
89 meeting this \_\_\_\_\_ day of April, 2020.  
90

91 Signed in authentication thereof this \_\_\_\_\_ day of April,  
92 2020.  
93

94 \_\_\_\_\_  
95 Penny Sweet, Mayor

96 Attest:  
97

98 \_\_\_\_\_  
99 Kathi Anderson, City Clerk



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## COMMUNITY SAFETY ADVISORY GROUP MEMBERS

Marc Allen, Community Member at Large

Santos Contreras, S. Rose Hill/Bridle Trails  
Neighborhood Association

Doug Davis, Hallmark Realty & Kirkland Chamber

Joe Dobner, Highlands Neighborhood Association &  
Kirkland Indivisible

Mary Diehl, Community Member at Large

Shairose Gulamani, Community Member at Large

Tim Hickey, Kirkland Senior Council

Naomi Hill, Google

Robert Iracheta, N. Rose Hill Neighborhood  
Association

John Kappler, Houghton Community Council

Kent Kollmorgen, Evergreen Hill Neighborhood  
Association

Kevin Leach, Northwest University

Ken McKenzie, Market Neighborhood Association

Stephanie Miller, Community Member at Large

Janelle Milodragovich, Moss Bay Neighborhood  
Association

Ron Olson, Kiwanis

Lyn Osborne, Evergreen Hill Neighborhood  
Association

David Patterson, Lakeview Neighborhood  
Association

Todd Pemble, Kiwanis

Ken Popp, Kiwanis

Mike Potter, Lake Washington Institute of  
Technology

Cindy Randazzo, Finn Hill Neighborhood Alliance

Max Reisman, Kirkland Youth Council

Chrissy Roberts, Kirkland Downtown Association

Drew Roberts, Kirkland Downtown Association

Cat Robinson, Lake Washington School District

Penny Sweet, Mayor, City of Kirkland

Mike Wert, Juanita Neighborhood Association

Paula White-Greschler, KirklandSafe

Liz VanBemmel, Master Builders Association



## EXECUTIVE SUMMARY

The Community Safety Advisory Group (ComSAG) is recommending two measures for Fire and Emergency Medical Services be placed on the November 3, 2020 ballot to improve response times for fire and emergency medical calls throughout the City of Kirkland. The first measure would be a 12¢ permanent levy to fund 24 new firefighter/EMTs. The second measure would be a 10¢ excess levy bonded over 30 years to pay for seismic renovations and firefighter health and safety improvements to existing fire stations and the construction of a new station. Together these measures would provide for a new fire station, existing station renovations, improved 911 call response times, and firefighter/EMT health and safety improvements.

The ComSAG was established in September 2019 by [Resolution R-5386](#) (Appendix A) and convened by the City Council to review and recommend capital and operating elements, as well as funding mechanisms for a potential November 2020 ballot measure for Fire and Emergency Medical Services.

The following recommendation to the Council was made after five months of meetings to educate group members and discuss what elements of this potential ballot measure the ComSAG believes are most important for the City. The ComSAG wanted to note that while there are three categories of what appear to be differing levels of importance, the group felt that all elements introduced to them had significant value to the community. The difficult decisions came down to choosing those investments that were most urgent, while considering the cost to taxpayers and potential voter fatigue. Below are definitions of the three categories the ComSAG used to place both capital and operating elements:

- **Definitely Include:** Elements ComSAG recommends the City Council should include in the ballot measure.
- **For Council Consideration:** Elements ComSAG feels have a strong value and recommends the City Council review pros and cons and decide whether to include.
- **Not This Ballot Measure:** Elements ComSAG feels are not ready for this measure and/or could be funded outside of this ballot measure.

Below is the list of capital and operating elements in the "Definitely Include" category:

"Definitely Include" Capital Elements		Project Cost	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median- Valued Home*	
Juanita Station 27 design, build, and relocate east of I-405		\$23,340,000	\$1,285,079	\$0.04076	\$29.76	
Houghton Station 22 renovation and modernization		\$10,620,000	\$375,503	\$0.01855	\$13.54	
Forbes Creek Station 21 renovation and modernization		\$6,820,000	\$584,728	\$0.01191	\$8.70	
N. Rose Hill Station 26 renovation and modernization		\$9,410,000	\$518,106	\$0.01643	\$12.00	
Purchase of a 2 <sup>nd</sup> Ladder Truck		\$1,604,407	\$88,337	\$0.00280	\$2.05	
Design and build a Training Building at the new N. Juanita Station 24		\$6,222,853	\$342,625	\$0.01087	\$7.93	
Total Capital		\$58,017,260	\$3,194,378	\$0.10133	\$73.97	
"Definitely Include" Operating Elements		FTEs	Annual Cost**	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median- Valued Home
Dedicated Aid Car at Houghton Fire Station 22		10	\$1,626,102	\$1,626,102	\$0.05158	\$37.65
Cross staff new N. Juanita Station 24		5	\$813,051	\$813,051	\$0.02579	\$18.83
Additional Firefighter/EMT		5	\$813,051	\$813,051	\$0.02579	\$18.83
12 Hour EMS Transport		4	\$650,441	\$650,441	\$0.02063	\$15.06
Total Operating		24	\$3,902,645	\$3,902,645	\$0.12380	\$90.37
Total	Capital		\$58,017,260	\$3,194,378	\$0.10133	\$73.97
	Operating		\$3,902,645	\$3,902,645	\$0.12380	\$90.37
	Total			\$7,097,023	\$0.22513	\$164.34

\*According to the King County Assessor's Office, the median home value in Kirkland in 2020 is \$730,000.

\*\*First year costs are shown.



In addition to the projects recommended in the "Definitely Include" category, the following list of projects are recommended "For Council Consideration."

"For Council Consideration" Capital Elements		Cost in 2026 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home	
Training Props – Option B		\$7,786,076	\$428,694	\$0.01360	\$9.93	
Converting Current Station 27 into a Logistics Center		\$753,000	\$41,459	\$0.00132	\$0.96	
Total Capital		\$8,539,076	\$470,153	\$0.01492	\$10.89	
"For Council Consideration" Operating Elements		FTEs	Cost in 2021 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Hire an Additional Fire Inspector		1	\$173,596	\$173,596	\$0.00551	\$4.02
Hire an Additional Battalion Chief Aide		5	\$813,051	\$813,051	\$0.02579	\$18.83
Total Operating		6	\$986,647	\$986,647	\$0.03130	\$22.85
Total	Capital		\$8,539,076	\$470,153	\$0.01360	\$10.89
	Operating		\$986,647	\$986,647	\$0.03130	\$22.85
	Total			\$1,456,800	\$0.04490	\$33.74

ComSAG believes these elements are not yet ready to be considered in this ballot measure and/or could be funded by means other than this ballot measure. Below are the two elements the ComSAG recommends for the "Not this Ballot Measure" category:

"Not this Ballot Measure" Operating Elements		FTEs	Cost in 2021 \$	Annual Cost	Tax Rate /\$1,000AV	Annual Impact to Median-Valued Home
Additional Training Officer		1	\$185,723	\$185,723	\$0.00589	\$4.30
Public Information Officer		1	\$125,419	\$125,419	\$0.00398	\$2.90
<b>Total Operating</b>		<b>2</b>	<b>\$311,142</b>	<b>\$311,142</b>	<b>\$0.00987</b>	<b>\$7.20</b>
<b>Total</b>	Capital		-	-	-	-
	Operating		\$311,142	\$311,142	\$0.00987	\$7.20
	Total		\$311,142	<b>\$311,142</b>	<b>\$0.00987</b>	<b>\$7.20</b>

Further information about the specific elements and the process followed to arrive at the ComSAG recommendation is contained in the body of this report.



## PROCESS

The ComSAG was chaired by Mayor Penny Sweet and was comprised of 30 representatives from varying organizations such as neighborhood associations, tech companies, universities, and community members at-large. The City filmed an informational video featuring Fire Chief Joe Sanford to recruit for two at-large positions. After the application deadline, the City received further interest from two more members of the public, and staff felt the ComSAG would benefit from their participation. [Resolution R-5386](#) allowed the City Manager to appoint a limited number of additional ComSAG members, resulting in four community members at-large.

The ComSAG met eight times between October 2019 and March 2020, averaging 78% attendance at each meeting. Key milestones, ComSAG meeting dates, topics, and curriculum are provided below along with a link to the meeting materials provided to the ComSAG:

Date	Curriculum/Timeline
<b>2019</b>	
September 3	Council provided direction on draft resolution and workplan
September 17	Council adopted <a href="#">resolution R-5386</a>
<b>Community Safety Advisory Group Begins</b>	
<a href="#">October 29</a>	Fire/EMS 101 <ul style="list-style-type: none"> <li>• <a href="#">History of the Kirkland Fire Department</a></li> <li>• <a href="#">Station Life and Training</a></li> <li>• <a href="#">Deployment and Staffing</a></li> <li>• <a href="#">Response Times</a></li> <li>• <a href="#">Serving an Evolving Kirkland</a></li> </ul>
<a href="#">November 7</a>	<ul style="list-style-type: none"> <li>• <a href="#">Station Renovations for Seismic Resiliency and Firefighter Health and Safety</a></li> <li>• <a href="#">Ballot Measure Elements and Tiers</a></li> </ul>
<a href="#">November 21</a>	Station Tours <ul style="list-style-type: none"> <li>• Station 22</li> <li>• Station 26</li> <li>• Station 25</li> </ul>
<a href="#">December 5</a>	<a href="#">Potential capital and operating ballot measure elements and costs</a>
<a href="#">December 19</a>	<a href="#">Kirkland budget overview/How property tax works, funding options</a>
<b>2020</b>	
January 15	<del>Evaluate Options 1 – Needed investments and how to pay for them (Snowed Out)</del>
<a href="#">January 29</a>	<a href="#">Evaluate Options 1 – Needed investments and how to pay for them</a>
<a href="#">February 11</a>	<a href="#">Evaluate Options 2 – Needed investments and how to pay for them</a>
<a href="#">February 26</a>	<a href="#">Final Recommendations</a>

All meeting dates, topics, and presentations are available in detail in the chart above as well as accessible on the City's website at [https://www.kirklandwa.gov/Residents/Public\\_Safety/fire-2020-ballot-measure.htm](https://www.kirklandwa.gov/Residents/Public_Safety/fire-2020-ballot-measure.htm)

At the first meeting, each ComSAG member was provided a binder that included preliminary background materials and was updated at each meeting with new materials.

The first three meetings were dedicated to educating the group on all aspects of Fire and Emergency Medical Services. During their first meeting, Fire Chief Joe Sanford presented on the history of the Kirkland Fire Department followed by small group breakout presentations. Each small group rotated through presentations addressing the Kirkland Fire Department staffing and deployment, station life and training, response times, and serving an evolving Kirkland (meeting the needs of a changing community). The 2018 Annual Report is included as Appendix J to provide an overview of the Kirkland Fire Department.

Following the first meeting were two meetings in November focusing on station renovations to provide seismic resiliency and firefighter/EMT health and safety upgrades. The group spent the second meeting in November touring stations 22, 26, and 25.

These first three meetings allowed the group to build a foundation of knowledge helping their decision-making process prior to staff introductions of the potential ballot measure elements.

In December, the focus shifted to potential ballot measure elements, finance, property tax, and the different potential funding mechanisms. On December 5, City Manager Kurt Triplett presented a list of 16 'a-la carte' capital and operating ballot measure elements organized into three different tiers described below.

**Tier 1 Critical Needs** – projects that are crucial to the success of the Fire Department and protection of the Kirkland community. A full description of each element is included in Appendix B. These are baseline elements that staff believes need to be included in the ballot measure, barring ComSAG and Council recommendations to exclude. This tier included:

- Renovation and modernization of Station 21 in Forbes Creek
- Renovation and modernization of Station 22 in Houghton
- Renovation and modernization of Station 26 in N. Rose Hill
- Construction of a new Station 27 in Totem Lake, east of I-405
- Staffing for a dedicated Aid Car at Station 22 in Houghton
- Cross Staff new Station 24 in N. Juanita

**Tier 2 Strategic Plan/Washington Standards and Ratings Bureau (WSRB)** – Two evaluations completed after annexation in 2011 identified programmatic and capital elements that were recommended but that have not been completed. The [Fire Strategic Plan](#) and the Washington State Ratings Bureau reports recommended items for consideration by the Department to improve service and/or improve the Department's WSRB rating. Both reports can be reviewed in their entirety in Appendices C and D, respectively. This tier included:

- Purchase of a 2<sup>nd</sup> Ladder Truck
- Staffing for a dedicated 12 Hour EMS Transport during peak hours
- Additional Fire Prevention Inspector
- Fire Department Public Information Officer

**Tier 3 Service Upgrades** – items that elevate the Kirkland Fire Department above and beyond the base level of service, to meet the needs of a growing population and commercial and residential development. This tier included:

- Conversion of existing Station 27 to a Logistics Center
- Construction of a Training Building next to the new Station 24
- Purchase of Training Props also to be located next to Station 24
- Additional Training Officer
- Additional Firefighter/EMT
- Additional Battalion Chief Aide

Once the tiers were introduced to the ComSAG, staff provided each member with a set of 'flashcards.' For each element, there was an accompanying flashcard that described which tier it was in, the individual cost, impact, and scope. Again, all flashcards and details of each element can be referenced in Appendix B.

The December 19, 2019 meeting was the last educational presentation from staff and the focus was on the Kirkland budget and what role the ballot measure plays in the budget. At the conclusion of that meeting, staff presented the ComSAG with a 'top of mind' exercise. During this exercise, the ComSAG was asked to rank each element as a high, medium, or low priority. The outcome of that exercise can be seen in Appendix E. At the next meeting, the group categorized elements in small group exercises and spent the next two meetings working together to finalize their recommendations by placing capital and operating elements into three categories:

- **Definitely Include:** Elements ComSAG recommends the City Council should include in the ballot measure.
- **For Council Consideration:** Elements ComSAG feels have a strong value and recommends the City Council review pros and cons and decide whether to include.
- **Not This Ballot Measure:** Elements ComSAG feels are not ready for this measure and/or could be funded outside of this ballot measure.

Once the group reconvened after the holidays, the purpose of the meetings shifted away from staff educating the ComSAG, to the ComSAG beginning to tell staff what they recommend. The January 15, 2020 meeting was cancelled due to the snowstorm, so the ComSAG spent their only January meeting focused on solidifying their priority ranking of elements (from December 19, 2019) and how to finance the investments.

## TIMING & SIZE OF BALLOT MEASURE

The ComSAG analyzed financing mechanism options at their February 11<sup>th</sup> and 26<sup>th</sup>, 2020 meetings. Key points considered were the pros and cons of placing one measure on the ballot versus two, and a permanent levy lid lift or a multi-year lid lift. Ultimately, the group felt that keeping the estimated annual impact under \$200 was an important bottom line.

### One Measure v. Two Measures

The ComSAG recommends proposing two separate ballot measures at the November 2020 general election: a 30-year excess levy to fund capital expenditures and a permanent levy lid lift to fund operating expenditures.

At its February 26 meeting, the ComSAG discussed and voted on whether to recommend the City Council place one or two measures on the November 2020 ballot. Below is a chart outlining the group's pros, cons, and support of each option. The questions asked and the outcome of the votes can be seen in Appendix F in the appendix.

Financing	Pro	Con
<b>One 9-Year Levy Lid Lift Measure</b> 36% support	<ul style="list-style-type: none"> <li>Levy requires a lower voter approval threshold (50%+1) to pass.</li> <li>Only vote once to approve both.</li> <li>Fewer years of property tax increase.</li> <li>Far less interest being paid since there would be no debt.</li> </ul>	<ul style="list-style-type: none"> <li>Ends after 9 years and staffing would need to be reauthorized in a future vote.</li> <li>Higher tax rate</li> </ul>
<b>Two Measures: One permanent levy and one capital bond</b> 64% support	<ul style="list-style-type: none"> <li>Levy requires a lower voter approval threshold (50%+1) to pass.</li> <li>Better chance at getting at least one of the two measures to pass.</li> <li>Can bond for capital which reduces annual impact and tax rate.</li> </ul>	<ul style="list-style-type: none"> <li>Capital requires 60% voter approval.</li> <li>One can pass and the other fails.</li> <li>Both can fail</li> </ul>

Supporters of one measure felt that it keeps messaging simple, straight forward, and would not overwhelm voters. Supporters of two measures felt it was more important to keep the overall cost impact down, rather than avoiding the 60% threshold for the bond by placing just one measure on the ballot.

### Permanent v. Multi-Year Levy Lid Lift

After the ComSAG discussed the idea of placing one or two measures on the ballot, staff asked the group to discuss the pros and cons, and vote on financing through a permanent or multi-year levy lid lift. Below is a chart outlining the group's pros, cons, and support of each options:

Financing	Pro	Con
<b>Permanent Levy</b> 59% support	<ul style="list-style-type: none"> <li>Requires a lower voter approval threshold (50%+1) to pass.</li> <li>Non-expiring resource for annual operating and maintenance costs.</li> </ul>	<ul style="list-style-type: none"> <li>Limit 9 years for debt service on bonds.</li> <li>Limited to a 1% increase/year which loses purchasing power over time.</li> </ul>
<b>Multi-Year Levy</b> 41% support	<ul style="list-style-type: none"> <li>50% + 1 voter approval to pass.</li> <li>Can increase each year for up to six years by a specified percentage after the first year.</li> <li>Can adjust for inflation and future needs at reauthorization.</li> </ul>	<ul style="list-style-type: none"> <li>Limit 9 years for debt service on bonds.</li> <li>Staffing expires if not reauthorized.</li> </ul>

Supporters of a permanent levy lid lift felt that it is the most stable way to fund staffing since it is a permanent source of income. They also felt strongly about the fact that it would not have to be voted on in subsequent years. Supporters of the multi-year felt it sends a message to the voters that the City will always reevaluate its needs in coming years, and that shows sincerity and consideration of taxpayers' dollars. The multi-year supporters also felt that it was a safer way to keep up with inflation and not be subject to the 1% property tax cap each year. However, they acknowledged it comes with the risk of not being reauthorized.

## Permanent Levy Lid Lift

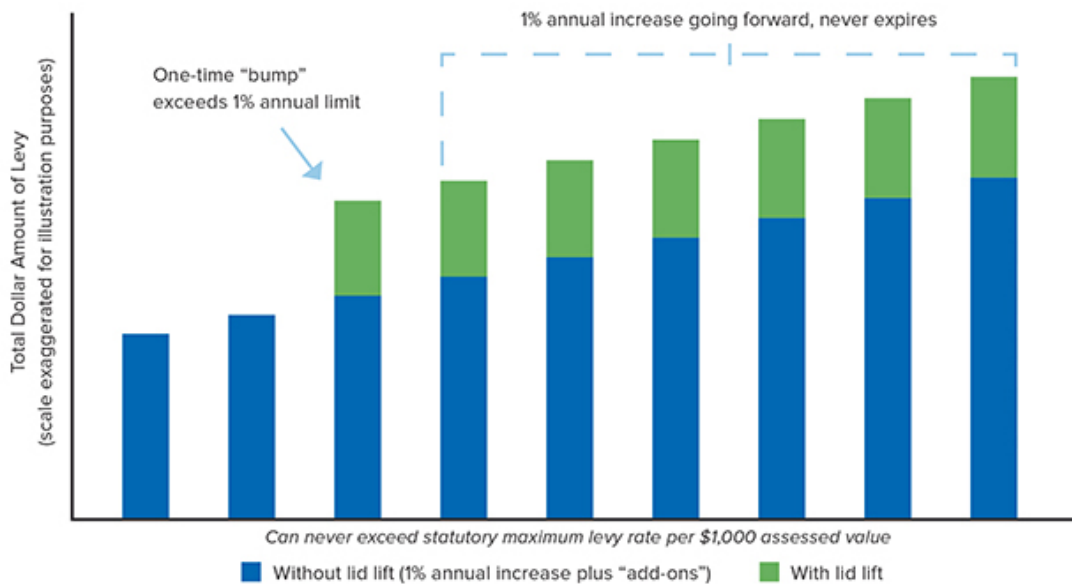
The passage of Initiative 747 in 2001 established a “101% levy limit” limiting the amount that any taxing jurisdiction can increase its regular property tax levy each year (excluding new construction) without voter approval. Therefore, the City may not increase the total levy by more than 1% annually or the implicit price deflator, whichever is lower. However, cities may ask voters to approve an increase in the operating levy.

A permanent levy lid lift increases the annual property tax levy by the amount requested (a rate per \$1,000 of assessed valuation). After the first year, the levy is subject to the one percent levy limitation described above. As an alternative, the City can ask voters to increase the base levy and allow for a set annual increase (usually related to estimated inflation) for up to six years. After six years, the City may ask voters to reauthorize the higher levy. Otherwise the levy “resets” to the level prior to the vote and is again subject to the 1% levy limitation.

The advantage of the permanent levy lid lift is that the measure never expires, and the levy lid never reverts, which the group noted was important when funding ongoing expenses such as staff. However, the downside of permanent single-year lid lifts is that future annual increases may not exceed 1% without going to the voters for another lid lift. This means at some point in the future the purchasing power of the additional 1% becomes less as inflation increases.

Levy lid lifts may be used for any of the City’s levies, including the general fund levy, and there are no restrictions on supplanting funds (i.e. the new revenue can be used to fund existing services). Below is a graph from the Municipal Research and Services Center (MRSC) visually representing the impact of a levy lid lift and the 1% annual limit.

### SINGLE-YEAR PERMANENT LEVY LID LIFT



## 30-Year General Obligation Excess Levy

Capital investments can be financed using debt. With voter approval, the City may issue unlimited tax general obligation (G.O.) bonds – also known as U.T.G.O. bonds – for capital purposes (see RCW 84.52.056 and article VII, section 2(b) of the state constitution). Once the bond has been approved and issued, it is repaid through

annual excess levies for the duration of the bond. When the bonds are paid off, the excess levy expires. Approval of an excess levy requires a 60% approval rate and "validation" which indicates that at least 50% of the voters that voted in the most recent general election vote for the measure.

A "hybrid" variation is to use the operating levy lid lift to fund "councilmanic" bonds. The City Council may issue councilmanic bonds without voter approval provided there is adequate operating revenue to repay the debt. The advantage is that a levy lid lift only requires a 50% majority approval. The disadvantage is that by state law the debt must be retired in nine years, thereby increasing the annual amount needed to pay debt service.

General Obligation bond excess levies provide a stable revenue stream to repay debt and are automatically sized to pay the principal and interest on the bonds due each. As soon as the debt has been repaid, the excess levies cease. U.T.G.O. bonds may only be used for capital purposes. G.O. bond excess levies are not subject to the 1% annual levy lid limit. The levy amount for each year is calculated according to the length of the obligation and the associated amortization schedule prepared at the time of the bond sale.

## COMSAG FINAL RECOMMENDATION

The ComSAG wanted to convey to the Council it believes all elements are important, however, it did not want the overall cost of the ballot measure to be the reason the measures failed. While some elements are in the "Not This Ballot Measure" category, they were not placed there because the ComSAG felt they weren't important. Throughout the ComSAG meetings, participants were asked for input about the kinds of information needed to develop a recommendation, and what information the public should have to make an informed choice about the ballot measure. In Appendix G are themes that emerged from the group, key messaging the ComSAG wants Council to keep in mind when evaluating all elements, and what the ComSAG thinks the public should know. Parallel to key messaging, staff maintained a log of questions asked by the ComSAG throughout the process. All ComSAG questions and answers can be referenced in Appendix H.

During the January and February meetings, the ComSAG developed recommendations on all potential ballot measure elements outlined above, with pros, cons, and comments. A full narrative of all elements can be found in the ComSAG Final Recommendation of this report.

At the February 11<sup>th</sup> meeting, the ComSAG participated in an exercise involving anonymous voting. Based off the group's top of mind exercise from December 19, 2020, elements were placed into the three categories outlined in the section above. ComSAG members were then asked to anonymously vote on whether they would like to move the element up to a higher category, keep it in its current category, or move it down to a lower category (movement up or down depended on which category it was already in). The full exercise, questions, and results can be found in Appendix I.

## “DEFINITELY INCLUDE”

Element	Reasons to Include/Exclude & Comments	
<b>Station 21</b> Forbes Creek	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Renovations promote station longevity which is important for the community and generations to come.</li> <li>Modernization of the stations help keep our firefighter/EMTs safe.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Potential equity issues if we invest in some stations and not others.</li> <li>Suggest doing all proposed station renovations or none.</li> </ul>
<b>Station 22</b> Houghton		
<b>Station 26</b> N. Rose Hill		
<b>Station 27</b> Design, Build, and Relocate East of I-405	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Improves response times and allows for two stations east of I-405 which promotes resiliency in the system if catastrophic events and/or earthquakes occur.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Moving a station may leave a hole and has overall system impacts.</li> </ul>
<b>Second Ladder Truck</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Easy to understand from a voter’s perspective. Not expensive.</li> <li>It’s a necessity to serve taller buildings (vertical growth).</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Finance it differently – Councilmanic debt or City reserves.</li> <li>Not a top priority for this ballot measure.</li> <li>Those more likely to need the services of a ladder truck provides should pay for it.</li> </ul>
<b>Training Building</b> (Option B)	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Provides public use. Supports the training needs of our growing community.</li> <li>Improves response times by allowing firefighter/EMTs to train within City limits.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Expensive, can the Council look into charging for public use?</li> </ul>
<b>Dedicated aid car</b> at Station 22	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Improves response times.</li> <li>Needed for density, growth, and aging population.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Highest operating cost of all elements.</li> </ul>
<b>Cross staff</b> new Station 24	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>If you build a new station, fully staff it.</li> <li>Creates versatility and system efficiency by improving response times.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Hiring more Firefighter/EMTs is not as important as taking care of the stations.</li> </ul>

<b>Additional Firefighter/EMT</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Improves response times, and supports coverage while crews are training outside of the City.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>Cost is hard to accept if you look at this in relation to a dedicated aid car or cross staffing.</li> </ul>
<b>12 Hour EMS Transport</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>Improves response times.</li> <li>Efficient peak hour operation.</li> <li>75% of all calls are EMS.</li> <li>Helps reduce concurrent call impact.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>High cost.</li> <li>Not as needed if we have a dedicated aid car at station 22.</li> </ul>



## “FOR COUNCIL CONSIDERATION”

Element	Reasons to Include/Exclude & Comments	
<b>Training Props</b> (Option B)	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>• Training is critical to prepare for real life scenarios.</li> <li>• Versatile construction and can always add onto the structure in the future.</li> <li>• Potential to charge other jurisdictions’ fire departments to train on them.</li> </ul> <b>Comments:</b> <ul style="list-style-type: none"> <li>• Could generate opposition to the measure.</li> <li>• Is there anywhere on the outskirts of Kirkland to have the props be instead?</li> <li>• Spend money on staffing instead to provide coverage during training.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>• Noise and disturbance to the neighbors.</li> <li>• Concerns about training impacts on surrounding community.</li> <li>• Focus should be on EMS training instead.</li> </ul>
<b>Logistics Center</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>• Potential to help with efficiency and response times.</li> <li>• Very affordable, and if station 27 moves east of I-405 creates flexibility.</li> <li>• Supports our growing City – this will be needed.</li> </ul> <b>Comments:</b> <ul style="list-style-type: none"> <li>• Use Councilmanic debt or City reserves.</li> <li>• Why spend money renovating for a logistics center when a cheaper building might be an option?</li> <li>• If station 27 does not move, is a regional logistics center a possibility?</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>• Not yet well defined on how it will be used.</li> <li>• Hold off until there’s a clear plan.</li> </ul>
<b>Additional Fire Inspector</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>• Prevention is more cost effective in the long run.</li> <li>• More buildings, more complex calls, saves property and lives.</li> <li>• Low cost for the added benefit.</li> <li>• Improved development services process/more predictable - saves time and money.</li> </ul> <b>Comments:</b>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>• Not enough direct benefit to the taxpayers.</li> <li>• The cost of this position should be paid by those who use the services they provide.</li> <li>• Find another way to pay for this.</li> </ul>

	<ul style="list-style-type: none"> <li>Can the City show the comparison of the cost of the inspector vs. the homeowner's average saving through the reduces WSRB rating?</li> </ul>	
<b>Battalion Chief Aide</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>While frequency of use is low, important when needed.</li> <li>Don't want Battalion Chiefs distracted while driving.</li> <li>Incidents that Battalion Chiefs respond to are complex, and this would make it safer/easier.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>For the same cost, an additional firefighter/EMT is more beneficial.</li> <li>Difficult to explain.</li> <li>All firefighter/EMTs should be trained to handle these duties.</li> </ul>
	<b>Comments:</b> <ul style="list-style-type: none"> <li>High risk v. low frequency.</li> <li>Worried about public's perception of what this position is/does.</li> <li>Can another position fill this need?</li> <li>Expensive, is it needed?</li> </ul>	

## "NOT THIS BALLOT MEASURE"

Element	Reasons to Include/Exclude & Comments	
<b>Additional Training Officer</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>• Education and training are invaluable for firefighters – need all the training they can get.</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>• Cost – important to focus on the items in the Definitely Include category, and then we need to watch costs on the margins.</li> </ul>
	<b>Comments:</b> <ul style="list-style-type: none"> <li>• Perhaps they can also educate the community.</li> <li>• More of a direct positive impact than a PIO.</li> <li>• "Yes, if we can add a training facility."</li> </ul>	
<b>Public Information Officer</b>	<b>Reasons to Include:</b> <ul style="list-style-type: none"> <li>• Cannot put a price on education.</li> <li>• Low cost</li> </ul>	<b>Reasons to Exclude:</b> <ul style="list-style-type: none"> <li>• Doesn't contribute to faster response times.</li> </ul>
	<b>Comments:</b> <ul style="list-style-type: none"> <li>• There might be technological solutions to this – more of an online and/or social media presence.</li> <li>• Fund in other ways.</li> <li>• Can perhaps accomplish what's needed in conjunction with a position in another department.</li> <li>• Can the City's current PIO do this?</li> <li>• If not, can this be a volunteer position?</li> </ul>	

## NEXT STEPS

Council is scheduled to receive the recommendation at an April Council meeting. Staff is also working with EMC Research to conduct a community survey which will include questions regarding the potential Fire ballot measure. The survey feedback will be brought to Council in June, and final action to place these measures on the ballot will take place no later than the last meeting in July. A general timeline is outlined below:

<b>Election Calendar</b>	<b>Accelerated Calendar</b>	<b>Item</b>
March 17		Staff Presented Preliminary Update on ComSAG Recommendation to Council
April 7		Staff to present Full ComSAG Recommendation to Council
April 21		Council to Adopt Resolution R-5413 Accepting Full ComSAG Report
April/May		EMC Research to Conduct Community Survey
May/June		Staff to Bring Survey Responses to Council
July 7 or 21	June 2 or 16	Ballot Measure Public Hearing
July 7	June 6	Pro/Con Committee Appointments Authorized
July 21	June 16	Pro/Con Committee Appointments Confirmed
July 21	June 16	Last Council Meeting to Approve Ballot Measure Ordinance
August 4		Ballot Measure Resolution due to King County
August 7		Explanatory Statement Due
August 11		Pro/Con Statements Due
November 3		General Election

## APPENDICES

- A. Resolution R-5386
- B. Ballot Measure Element Flashcards
- C. Fire Department Strategic Plan
- D. Washington Survey and Rating Bureau Report
- E. Dec 19, 2020 Top of Mind Exercise
- F. Survey Results from Ballot Measure Financing
- G. Key Messaging
- H. Additional Group Questions
- I. Survey Results from Ballot Measure Elements Ranking
- J. 2018 Fire Department Annual Report
- K. Staff Photos and Biographies

**research****Live Telephone Survey****City of Kirkland**

15 minutes; n=400

**DRAFT** 04/02/20

EMC Research #20-7667

**[IF PHONE NUMBER IS A CELL PHONE READ INTRO\_CELL]**

**INTRO\_CELL:** Hello, my name is \_\_\_\_\_, and I'm conducting a survey for \_\_\_\_\_ to find out how people feel about issues in Kirkland. We are not trying to sell anything and are collecting this information on a scientific and completely confidential basis. **CONTINUE WITH PERSON ON PHONE, REPEAT INTRO IF NECESSARY**

**[IF PHONE NUMBER IS A LANDLINE READ INTRO\_LAND]**

**INTRO\_LAND:** Hello, my name is \_\_\_\_\_ and I'm conducting a survey for \_\_\_\_\_ to find out how people feel about issues in Kirkland. We are not trying to sell anything and are collecting this information on a scientific and completely confidential basis. May I speak to the youngest male in the household who is 18 or over and at home?

**IF NOT AVAILABLE OR NO MALES IN HH:** May I speak to the youngest female in the household who is 18 or over and available?

**IF YOUNGEST MALE/FEMALE IS NOT AVAILABLE CONTINUE WITH PERSON ON THE PHONE, REPEAT INTRO IF NECESSARY**

---

1. Do you live in Kirkland?
  1. Yes
  2. No/(Don't know/Refused) → **TERMINATE**
2. What is your gender? **(DO NOT READ LIST)**
  1. Male
  2. Female
  3. Non-binary
  4. Self describe **(RECORD RESPONSE)**
  5. (Refused)
- 3A. What year were you born? **[RECORD YEAR - VALID RANGE: 1910-2002; IF REFUSED, CODE AS 9999]**
- 3B. **[AGE RANGE - CODE FROM PREVIOUS QUESTION]**

**[IF 3A=9999 THEN ASK FOLLOWUP: "Would you say you are age (READ LIST)..."]**

  1. 18-29
  2. 30-39
  3. 40-49
  4. 50-64
  5. 65 or over
  6. (Refused)

4. Do you feel that things in Kirkland are generally going in the right direction or do you feel things have gotten pretty seriously off on the wrong track?
  1. Right direction
  2. Wrong track
  3. (Don't know/Refused)
5. What do you think is the most important problem facing Kirkland today? **(OPEN END, RECORD UP TO TWO VERBATIM RESPONSES, PROBE FOR SECOND RESPONSE)** And what do you think is the next most important problem facing Kirkland?

6INT. Recognizing the unique situation we are experiencing, I would like to ask you about a variety of potential issues facing Kirkland, both current and long term. Please rate each one using a scale of 1 to 7, where 1 means you feel that issue should be a very low priority and 7 means that you feel that item should be a very high priority for the City of Kirkland.

**(PROMPT IF NECESSARY:** How would you rate that item on a scale of 1 to 7, where 1 is a very low priority and 7 is a very high priority?)

**SCALE:**

1. 1 - Very Low Priority
2. 2
3. 3
4. 4
5. 5
6. 6
7. 7 - Very High Priority
8. (Don't know)

**(RANDOMIZE)**

6. Improving police services and response times
7. Improving fire and emergency medical services and response times
8. Reducing homelessness
9. Reducing traffic congestion
10. Improving housing affordability
11. Providing services for people in need
12. Addressing impacts of growth
13. Keeping residents informed about the coronavirus
14. Responding to the coronavirus

**(END RANDOMIZE)**

15INT. I'd like you to rate the job the City of Kirkland is doing on a variety of issues. Using a scale of excellent, good, only fair, or poor, please rate each of the following.

**(PROMPT IF NECESSARY:** How would you rate that, using a scale of excellent, good, only fair or poor?)

**SCALE:**

1. Excellent
2. Good
3. Only fair
4. Poor
5. (Don't know/Refused)

**(ALWAYS ASK FIRST)**

15. The job the City of Kirkland government is doing overall

**(RANDOMIZE)**

16. The job the City of Kirkland is doing using tax dollars responsibly
17. The job the City of Kirkland is doing providing police services
18. The job the City of Kirkland is doing providing firefighting services
19. The job the City of Kirkland is doing providing emergency medical services
20. The job the City of Kirkland is doing responding to the coronavirus

**(END RANDOMIZE)**

21INT. The City of Kirkland is considering two potential ballot proposals, including – **(ROTATE: [a bond measure to build a new fire station in Totem Lake and fund seismic renovations and other safety and capacity upgrades to several existing fire stations (ASK Q## FIRST, THEN Q##)] and [a measure to hire more firefighters who are also Emergency Medical Technicians (EMTs) (ASK Q## FIRST, THEN Q##)])**. The city wants to understand how high a priority each measure is for you. The first one is... **[RETAIN ROTATE ORDER]**

21. A potential 60 million-dollar, 30-year bond measure to fund capital improvements for Kirkland's fire services. If approved, this measure would fund the construction of a new fire station near Totem Lake and a new training center to improve fire and emergency response times. The measure would also fund seismic renovations of the existing Forbes Creek, Houghton, and North Rose Hill fire stations to improve firefighter health and safety. This measure would be funded by an estimated property tax of ten cents per one thousand dollars of assessed valuation.

In general, do you strongly support, somewhat support, somewhat oppose, or strongly oppose this potential ballot measure?

1. Strongly support
2. Somewhat support
3. Somewhat oppose
4. Strongly oppose
5. (Don't know/Refused)

The next one is...

22. A potential four million-dollar per year levy to fund the hiring of additional fire and emergency medical staff. If approved, this levy would fund the hiring of twenty-four new firefighters who are also trained as emergency medical technicians to fully staff Fire Station 24 in North Juanita and improve response times throughout the City for both fire and medical 9-1-1 calls. This measure would be funded by an estimated property tax of twelve and a half cents per one thousand dollars of assessed valuation.

In general, do you strongly support, somewhat support, somewhat oppose, or strongly oppose this potential ballot measure?

1. Strongly support
2. Somewhat support
3. Somewhat oppose
4. Strongly oppose
5. (Don't know/Refused)

**[END ROTATE]**



**[RETAIN ROTATE ORDER FROM EARLIER]**

23. If approved, the bond measure to build a new fire station in Totem Lake and fund seismic renovations and other safety and capacity upgrades would cost the owner of a \$730,000 home an estimated ten cents per one thousand dollars of assessed valuation, which amounts to a little over six dollars a month or roughly seventy four dollars per year.

After hearing this, would you strongly support, somewhat support, somewhat oppose, or strongly oppose a 30-year bond measure to fund the construction of a new fire station near Totem Lake and a new training center to improve fire and emergency response times, and to fund seismic renovations of the existing Forbes Creek, Houghton, and North Rose Hill fire stations to improve firefighter health and safety?

1. Strongly support
2. Somewhat support
3. Somewhat oppose
4. Strongly oppose
5. (Don't know/Refused)

24. If approved, the levy to fund the hiring of more firefighters who are also Emergency Medical Technicians would cost the owner of a \$730,000 home an estimated twelve and a half cents per one thousand dollars of assessed valuation, which amounts to just under eight dollars per month or about ninety dollars per year.

After hearing this, would you strongly support, somewhat support, somewhat oppose, or strongly oppose a levy to fund the hiring of twenty-four new firefighters, who are also trained as emergency medical technicians, to fully staff Fire Station 24 in North Juanita and improve response times throughout the City for both fire and medical 9-1-1 calls?

1. Strongly support
2. Somewhat support
3. Somewhat oppose
4. Strongly oppose
5. (Don't know/Refused)

**[END ROTATE]**

25INT. Next I'm going to read you a list of potential investments which could be included in the City of Kirkland's ballot measures. After each one, please tell me if that investment is very important, somewhat important, not too important, or not at all important to you.

**(PROMPT IF NECESSARY:** Is that very important, somewhat important, not too important, or not at all important?)

**SCALE:**

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
5. (Don't know/Refused)

**(RANDOMIZE)**

25. Build a new fire station 27 located near Evergreen Health Primary Care Hospital to provide a second fire station on the East side of I-405 to serve Kingsgate, Juanita, the Village at Totem Lake and surrounding developments.
26. Make critical earthquake safety upgrades, modernize, and expand fire station 21 at Forbes Creek, fire station 22 in Houghton, and fire station 26 in North Rose Hill, all serving the central and south parts of Kirkland.
27. Purchase a second ladder truck to allow firefighters to extinguish commercial and residential structure fires more effectively.
27. Build a fire training center to enhance specialty training and improve response times as firefighters can remain in Kirkland to train instead of traveling to Bellevue and Kenmore.
28. Provide a new dedicated aid car team of firefighters who are also trained as emergency medical technicians at station 22 in Houghton to serve Downtown Kirkland, and to respond to increasing medical calls especially among the growing elderly population.
29. Provide dedicated staffing for aid car transports to hospitals during the busiest 12-hour shifts, improving aid car response times to and from emergency medical scenes.
30. Hire additional firefighters who are also emergency medical technicians to improve response times throughout the City.

**(END RANDOMIZE)**

**[RETAIN ROTATE ORDER FROM EARLIER]**

31INT. Now I would like to ask you again about both public safety measures. Given everything you have heard:

31. Would you strongly support, somewhat support, somewhat oppose, or strongly oppose a 30-year bond measure to fund the construction of a new fire station near Totem Lake and a new training center to improve fire and emergency response times, and to fund seismic renovations of the existing Forbes Creek, Houghton, and North Rose Hill fire stations to improve firefighter health and safety?
1. Strongly support
  2. Somewhat support
  3. Somewhat oppose
  4. Strongly oppose
  5. (Don't know/Refused)

And...

32. Would you strongly support, somewhat support, somewhat oppose, or strongly oppose a levy to fund the hiring of twenty-four new firefighters, who are also trained as emergency medical technicians, to fully staff Fire Station 24 in North Juanita and improve response times throughout the City for both fire and medical 9-1-1 calls? ?
1. Strongly support
  2. Somewhat support
  3. Somewhat oppose
  4. Strongly oppose
  5. (Don't know/Refused)

**(END ROTATE)**

33INT. There are a number of different types of revenue sources which could be used for funding the fire and emergency medical services investments and fire station projects. For each of the following, say whether you would strongly support, somewhat support, somewhat oppose, or strongly oppose using that revenue source to fund fire and emergency medical services investments and fire station projects.

**(PROMPT IF NECESSARY:** Do you strongly support, somewhat support, somewhat oppose or strongly oppose that type of revenue?)

**SCALE:**

1. Strongly support
2. Somewhat support
3. Somewhat oppose
4. Strongly oppose
5. (Don't know/Refused)

**(RANDOMIZE)**

33. A sales tax increase
34. A property tax increase
35. Diverting contributions to the City's rainy day and rate stabilization funds
36. Reducing the budgets of general government, and programs such as parks maintenance and roads maintenance to free up funds to invest in fire and emergency medical services

**(END RANDOMIZE)**

Finally, I'd like to ask you a few questions for statistical purposes only.

37. Do you own or rent the place in which you live?
  1. Own/(Buying)
  2. Rent
  3. (Don't know/NA)
38. Are there any children under the age of 18 living in your home?
  1. Yes
  2. No
  3. (Don't Know/Refused)
39. **(IF RESPONDENT AGE<65)** Are there any seniors age 65 or older living in your home?
  1. Yes
  2. No
  3. (Don't Know/Refused)
40. Are you Spanish, Hispanic, or Latino?
  1. Yes
  2. No
  3. (Refused)

41. Please choose one or more races you consider yourself to be. **(SELECT ALL THAT APPLY)**
1. White/Caucasian
  2. Black, African or African American
  3. American Indian or Alaska Native
  4. Asian or Pacific Islander
  5. Other (Please specify) **[TEXT BOX]**
  6. (Refused)

**DEBRIEF:** Those are all of the questions I have for you today. We understand this is a very difficult situation for everyone and I would like to thank you for taking the time to speak with me and share your opinions.

**THANK YOU!**

## RESOLUTION R-5386

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND ESTABLISHING A COMMUNITY SAFETY ADVISORY GROUP TO RECOMMEND TO THE CITY COUNCIL THE CAPITAL AND OPERATING ELEMENTS AND FUNDING STRUCTURES INCLUDED IN THE ENHANCED COMMUNITY SAFETY FIRE/EMERGENCY MEDICAL SERVICES MEASURE TO BE PLACED ON THE NOVEMBER 2020 BALLOT.

1 WHEREAS, the construction of the City's five fire stations has  
2 been historically funded through bonds placed on the ballot and voted  
3 on by Kirkland residents; and  
4

5 WHEREAS, in 2011, the City Council ("Council") engaged the  
6 services of Emergency Services Consulting International ("ESCI") to  
7 conduct an organizational review of the Fire Department of the City of  
8 Kirkland ("City"); and  
9

10 WHEREAS, since 2012, Fire Department staff has worked with  
11 other City departments and the City Manager's Office to implement  
12 certain ESCI recommendations, including through the budget process;  
13 and  
14

15 WHEREAS, as one key component of keeping the community  
16 safe, the Council completed a Fire Strategic Plan in 2012 to identify  
17 needed investments in staffing, equipment and technology to provide  
18 for better response times for Fire and Emergency Medical Services  
19 ("EMS"), as well as the needed renovation and expansion of existing fire  
20 stations, the construction of a new Fire Station 24, and the construction  
21 of a new, relocated Fire Station 27 east of I-405; and  
22

23 WHEREAS, on October 20, 2015, the Council adopted Resolution  
24 R-5163 approving a plan that outlined short and long-term strategies  
25 for improving Fire and EMS in the City and fire stations throughout the  
26 City; and  
27

28 WHEREAS, on February 21, 2017, the Council approved  
29 Resolution R-5239 adopting the City's 2017-2018 Work Program to  
30 "explore potential ballot measures for fire station modernization and  
31 public safety operations to further the goals of Public Safety,  
32 Dependable Infrastructure, and Financial Stability"; and  
33

34 WHEREAS, the Council adopted Resolution R-5290 on December  
35 12, 2017, revising the 2017-2018 City Work Program to defer  
36 exploration of a fire facilities and operations ballot measure to at least  
37 2020 due to public concerns about the cumulative financial impact of  
38 property tax increases due to state and regional actions; and  
39

40 WHEREAS, on August 6, 2018, The Council adopted Resolution  
41 R-5324 sending Proposition 1 – Enhanced Police Services and  
42 Community Safety to Kirkland voters; and

WHEREAS, Proposition 1 was a public safety measure that anticipated a two-phased approach to public safety enhancements that included a fire/EMS ballot measure as the second phase in 2020; and

WHEREAS, on February 19, 2019, the Council adopted the 2019-2020 City Work Program which ranked "exploring a potential ballot measure in 2020 to fund Fire Station modernization and enhanced operations to further the goal of Public Safety" as its number one priority; and

WHEREAS, the City is experiencing unprecedented growth and redevelopment, with new types of commercial and residential structures that need Fire/EMS services; and

WHEREAS, providing Fire/EMS services that match this economic growth and redevelopment are further challenged by the expiration of the annexation sales tax credit in 2021, resulting in the loss of nearly four million dollars annually from the City's general fund; and

WHEREAS, to sustainably fund these potential Fire and EMS investments, the City must either identify new revenues or significantly reprioritize existing general fund programs such as parks maintenance and street maintenance that also rank as high priorities with Kirkland residents; and

WHEREAS, the City has a AAA credit rating, allowing it to borrow money at lower interest rates; and

WHEREAS, the City Manager recommends engaging a Community Safety Advisory Group ("CSAG") to meet for the duration of October 2019 through March 2020 to recommend to the Council ballot measure options; and

WHEREAS, the Council will consider the Community Safety Advisory Groups recommendations no later than March 2020 and may take action to place a measure on the November ballot at any subsequent Council meeting but no later than July 21, 2020.

NOW, THEREFORE, the City Council of the City of Kirkland do ordain as follows:

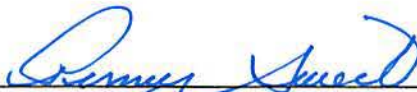
Section 1. The City Manager is authorized and directed to establish a Community Safety Advisory Group with representatives from each of the stakeholder groups listed in Exhibit A to this Resolution. The Community Safety Advisory Group shall recommend to the Council capital and operating elements and funding mechanisms to be placed on the Fire/EMS November 2020 ballot measure no later than March 17, 2020.

Section 2. To maximize the effectiveness of the Community Safety Advisory Group, the City Manager is authorized to appoint a limited number of additional CSAG members until the first CSAG meeting is convened. Prior to making such an appointment, the City Manager

96 shall notify the Council of the pending appointment and provide an  
97 explanation of why the appointment will be beneficial to the CSAG  
98 process.  
99

100 Passed by majority vote of the Kirkland City Council in open  
101 meeting this 17th day of September, 2019.  
102

103 Signed in authentication thereof this 17th day of September,  
104 2019.

  
Penny Sweet, Mayor

Attest:

  
Kathi Anderson, City Clerk



<b>Community Safety Advisory Group</b>	
Delegate from each of the 12* neighborhood associations	Chair/Convener - Mayor Penny Sweet
Kirkland Downtown Association	Rotary
Kirkland Chamber of Commerce	Kirkland Safe
Northwest University	Kirkland Indivisible
Lake WA Institute of Tech	Google
Lake WA School District	Realtor
Kirkland Interfaith Network	Builder/Developer
Merrill Gardens	Aegis Living Kirkland
Kiwanis	Sophia's Way
Eastside Business Association	Kirkland Business Roundtable
Evergreen Hospital	Hopelink
Houghton Community Council	Planning Commission
Senior Council	Youth Council
Two Community Members at Large	

\*Of the 13 neighborhood boundaries, only 12 have active neighborhood associations. (Totem Lake)

Date	Curriculum/Timeline
--	<b>2019</b>
September 3	Council provides direction on draft resolution and workplan
September 17	Council adopts resolution
--	<b>Community Safety Advisory Group Begins</b>
October 29	Fire/EMS 101 – What do we do and how - facilities, staffing
November 7	Tour of Facilities
November 21	Potential capital and operating ballot measure elements and costs
December 5	Kirkland budget overview/How property tax works, funding options
December 19	Evaluate Options 1 – Needed investments and how to pay for them
--	<b>2020</b>
January 16	Evaluate Options 2
January 30	Draft Recommendations
February 20	Final Recommendation
March 5	If Needed
--	<b>City Council Involvement Begins</b>
March 3 or 17	Council to Hear Recommendations from CSAG
July 7 or 21	Ballot Measure Public Hearing
July 7	Pro/Con Committee Appointments Authorized
July 21	Pro/Con Committee Appointments Confirmed
July 21	Last Council Meeting to Approve Ballot Measure Ordinance
August 4	Ballot Measure Resolution due to King County
August 7	Explanatory Statement Due
August 11	Pro/Con Statements Due
November 3	General Election





# STATION 21

Station 21 was funded by a voter approved bond passed in 1990 and built in 1992.



## BALLOT MEASURE ELEMENTS

- Seismic Retrofit.
- Firefighter Health & Safety Upgrades.

### Estimated Renovation Costs per \$1,000AV

Renovated in 2021	Renovated in 2026
<b>\$5,610,000</b>	<b>\$6,820,000</b>
30 year Bond <b>1.0¢</b>	30 year Bond <b>1.2¢</b>
Annual cost to median home <b>\$7.36</b>	Annual cost to median home <b>\$8.95</b>

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



# BALLOT MEASURE ELEMENT DETAIL

- Replace fire alarm notification system.
- Add dedicated room for medical gas storage.
- Replace building systems.
  - » HVAC
  - » Install source capture exhaust for bays
  - » Add heaters in bay
- Bring decontamination room up to code.
- General long-term maintenance.
  - » Flooring
  - » Painting
  - » Counters
  - » Repair roofing and insulation
- Seismic Upgrades.

### Station 21 Profile

**Year Built: 1992**

Apparatus: Engine, Aid Car, Reserve Engine  
 3 firefighter/EMTs on duty · 4 bedrooms  
 Station square footage: 8,541 · Lot size: 57,101







TIER 1: CRITICAL NEEDS

# STATION 22

Station 22 was funded by a voter approved bond in 1978 and completed in 1980.



## BALLOT MEASURE ELEMENTS

- Seismic Retrofit.
- Firefighter Health & Safety Upgrades.

**Estimated Renovation Costs per \$1,000AV**

Renovated in 2021	Renovated in 2026
<b>\$8,730,000</b>	<b>\$10,620,000</b>
30 year Bond <b>1.6¢</b>	30 year Bond <b>1.9¢</b>
Annual cost to median home <b>\$11.46</b>	Annual cost to median home <b>\$13.94</b>

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Seismic upgrades.
- Add upgraded fire suppression and fire notification system.
- Add dedicated room for medical gas storage.
- Add dedicated bunker storage room.
- Add dedicated decontamination room.
- Replace building systems.
  - » HVAC
  - » Source capture exhaust for bays
  - » Heaters in bay
- Add furring and insulation to existing brick.
- Reconfigure restrooms.
- General long-term maintenance.
  - » New flooring
  - » New counters
  - » New paint
  - » Repair roofing and insulation

### Station 22 Profile

**Year Built: 1978**

Apparatus: Engine, Aid Car, Reserve Engine, Air Unit, Antique Fire Engine  
 3 firefighter/EMTs on duty · 5 bedrooms  
 Station square footage: 9,071 · Lot size: 64,733







# STATION 26

Station 26 was funded by a voter approved bond passed in 1990 and built in 1994.



## BALLOT MEASURE ELEMENTS

- Seismic Retrofit.
- Firefighter Health & Safety Upgrades.

### Estimated Renovation Costs per \$1,000AV

Renovated in 2021	Renovated in 2026
<b>\$7,730,000</b>	<b>\$9,410,000</b>
30 year Bond <b>1.4¢</b>	30 year Bond <b>1.7¢</b>
Annual cost to median home <b>\$10.15</b>	Annual cost to median home <b>\$12.35</b>

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Seismic upgrades.
- Replace fire alarm notification system.
- Add dedicated bunker storage room.
- Replace building systems.
  - » HVAC
  - » Source capture exhaust for bays
  - » Heaters in bay
- General long-term maintenance.
  - » New flooring
  - » New paint
  - » New counters
  - » Repair roofing and insulation
- Replace water heaters and water pumps.

### Station 26 Profile

**Year Built: 1994**

Apparatus: Engine, Aid Car, Reserve Aid,  
Battalion 21, Battalion 22

3 firefighter/EMTs on duty + Battalion Chief · 8 bedrooms  
Station square footage: 6,488 · Lot size: 204,296







**TIER 1: CRITICAL NEEDS**

# NEW STATION 27

Land for a new Station 27 was secured by an interfund loan in 2019, and must be repaid by 2022.



## BALLOT MEASURE ELEMENTS

- **Relocating Station 27 east of I-405.**
  - » Improved response times to the Kingsgate and Totem Lake areas.
  - » To be able to support the community if catastrophic events and/or earthquakes occur.
- **Firefighter health & safety upgrades.**

### Estimated Renovation Costs per \$1,000AV

	If built in 2021	If built in 2026
30 year bond	\$19,190,000	\$23,340,000
Annual cost to median home	3.5¢	4.2¢
Annual cost to median home	\$25.19	\$30.64

The current Station 27 location



The new Station 27 location

Evergreen Health Medical Center

- Relocating Station 27 east of I-405 to improve response times for the Kingsgate and Totem Lake neighborhoods is one major priority of the 2012 Strategic Plan and is an element that would improve the Fire Department's score issued from the Washington Survey & Ratings Bureau (WSRB).
- Station 27 is 45 years old. Fire stations have a limited life expectancy from 35 up to approximately 50 years. Station 27 would need significant seismic upgrades and firefighter healthy and safety upgrades.
- In the event of an earthquake, or other catastrophic event, having a second station east of I-405 allows the Fire Department to provide better support and coverage to the community.

▲ This photo shows the current location (West of I-405) and the new location (East of I-405) of Station 27.





# DEDICATED AID CAR AT STATION 22



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Hire 10 additional firefighter/EMTs.

Estimated Cost per \$1,000AV

Permanent Levy	5.2¢
Annual cost to median home	\$37.65

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Station 22 has a minimum of three firefighter/EMTs cross staffing an aid car and a fire engine. The crew will respond to 911 calls by utilizing either the aid car or the fire engine, depending on the nature of the call. No matter which apparatus they respond with, all three crewmembers leave the station to respond to the call, effectively leaving the apparatus that is left behind out of commission until the crew returns from the call.
- Staffing a dedicated aid car at Station 22 means hiring 10 additional firefighter/EMTs to fill two positions.
- This means that even if a crew of three leave Station 22 to respond to a fire or EMS call, there will be an additional two-person crew to respond to calls for emergency medical services.







F-Page 21 TIER 1: CRITICAL NEEDS

# STATION 24

Add a third NEW firefighter/EMT to Cross Staff at Station 24.



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Hire 5 additional firefighter/EMTs.

Estimated Cost per \$1,000AV

Permanent Levy	2.6¢
Annual cost to median home	\$18.83

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- When Station 24 opens, one firefighter from Station 25 and one firefighter from Station 27 will be reassigned to Station 24.
- However, five firefighter/EMTs are needed to staff one additional position to fully cross staff Station 24's engine and aid car with a crew of three.
- The additional position will allow the station crew to respond to 911 calls by utilizing the either the aid car of the fire engine, depending on the nature of the call.
- By cross staffing Station 24, Station 27 will now have a dedicated aid car and dedicated engine crew. This means that even if a crew of three leave Station 27 to respond to a fire or EMS call, there will be an additional two-person crew to respond to calls for emergency medical services.







# LADDER TRUCK



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Purchase a second ladder truck to respond to structure fires, rescues, and other service requests.

### Estimated Cost per \$1,000AV

If Purchased in 2021	\$1,610,000
30 year bond	0.29¢
Annual cost to median home	\$2.11

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- The purchase of a second ladder truck is an outstanding priority in the 2012 Fire Strategic Plan and an element that would improve the Fire Department's score issued from the Washington Survey & Ratings Bureau (WSRB), which has a positive impact on general fire insurance costs for businesses and residents.
- A ladder truck is a specialized apparatus equipped with long ladders, hoses, salvage and overhaul equipment, and rescue tools.
- The ladder truck has a 1,250 gallon per minute pump and 300-gallon water tank.
- An effective firefighting force of no less than two ladder trucks must be present at the scene of a fire. Currently, the Fire Department relies on aid from neighboring agencies' ladder trucks. Two Kirkland ladder trucks will improve fire response times.







# DEDICATED 12-HOUR EMS TRANSPORT



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Hire 4 additional firefighter/EMTs.

Estimated Cost per \$1,000AV

Permanent Levy	2.1¢
Annual cost to median home	\$15.06

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Improves response times by allowing concurrent responses to both EMS and Fire calls.
- Other than major fires, transporting patients to hospitals is the most time-consuming, and apparatus are out of service at the hospital until the patient has been transferred to an ER room, and findings/symptoms/circumstances relayed to hospital staff.
- EMS transport crew would meet a fire station crew at an EMS incident and transport the patient to the hospital, allowing the fire station crew to return to the station and be ready for the next call.







# ADDITIONAL FIRE PREVENTION INSPECTOR



## BALLOT MEASURE ELEMENTS

- Hire an additional Fire Prevention Inspector for the Kirkland Fire Department Prevention Bureau.

**Estimated Cost per \$1,000AV**

Permanent Levy	0.55¢
Annual cost to median home	\$4.02

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Hiring an additional inspector is an unmet priority in the 2012 Fire Strategic Plan and an element that would improve the Fire Department's score issued from the Washington Survey & Ratings Bureau (WSRB), which has a positive impact on general fire insurance costs for businesses and residents.
- With new construction and added complexities for the Fire Department, the additional Inspector would be dedicated to the fire and life-safety inspections of businesses and multi-family residences.
- These inspections allow the Fire Department to be involved early in the construction of new infrastructure, making sure buildings are constructed with up to date fire code requirements. The result is less chance of fires, hazardous spills, or medical emergencies.







# PUBLIC INFORMATION OFFICER



## BALLOT MEASURE ELEMENTS

- Hire a dedicated Public Information Officer for the Kirkland Fire Department.

### Estimated Cost per \$1,000AV

Permanent Levy	0.40¢
Annual cost to median home	\$2.90

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Hiring a Public Information Officer is an unmet priority in the 2012 Fire Strategic Plan and an element that would improve the Fire Department's score issued from the Washington Survey & Ratings Bureau (WSRB), which has a positive impact on general fire insurance costs for businesses and residents.
- The PIO would help to improve the community's education and prevention efforts by distributing public safety messages to residents, leveraging the City's website to keep the community engaged, and launch campaigns to educate the community on fire safety, EMS, disaster preparedness, and hazardous material removal.
- As the Fire Department's outreach coordinator, this position acts as spokesperson for the department on major events and help staff the Emergency Operations Center at City Hall in the event of a disaster.







# LOGISTICS CENTER



## BALLOT MEASURE ELEMENTS

- Firefighter Health & Safety Upgrades.
- Renovate Station 27 for a logistics center.
- New roof, and seismic updates to bring the building up to code.

### Estimated Renovation Costs per \$1,000AV

Renovated in 2026	<b>\$753,000</b>
30 year bond	<b>0.14¢</b>
Annual cost to median home	<b>\$0.99</b>

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- When Station 27 is relocated to improve service to the Kingsgate and Totem Lake areas, remaining Station 27 can be utilized as a logistics center.
- A logistics center would provide a central location for deliveries, reserve apparatus storage, fueling station, medical, cleaning and firefighting supplies, technical rescue equipment storage, uniform storage, and personal protective equipment repair. This would free up space in existing stations.
- Although the building would no longer be considered 'critical infrastructure,' there are still renovations and modernization needed to bring the building up to code since it's construction in 1974.

### Current Station Profile

**Year Built: 1974**

Apparatus: Apparatus Storage, Fueling Station

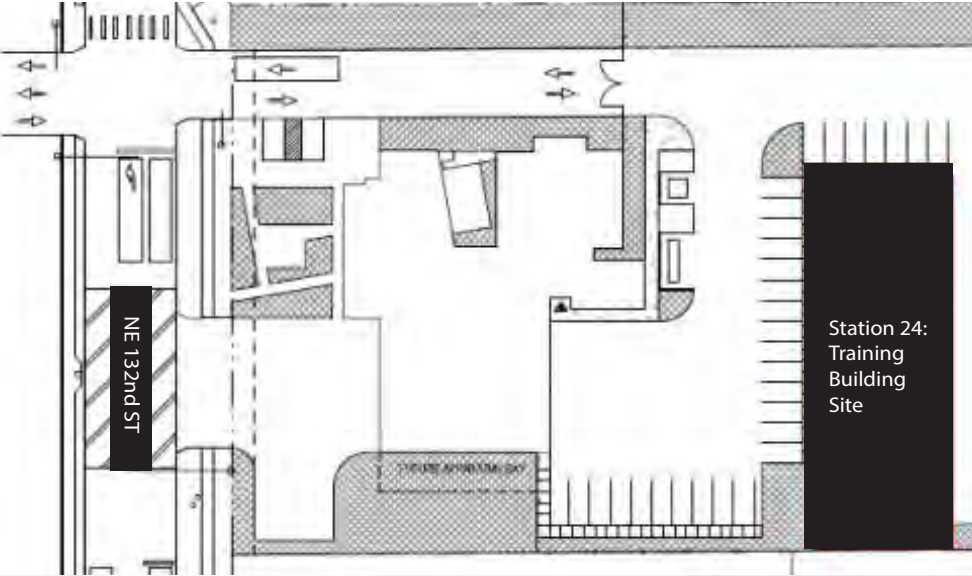
Station square footage: 8,159 · Lot size: 66,211







# TRAINING BUILDING



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Firefighter Health & Safety Upgrades.
- Multipurpose building situated in the back of Station 24.

Estimated Costs per \$1,000AV

If built in 2026		
A	B	C
\$ 4,850,000	\$ 6,225,000	\$ 9,855,000
30 year bond		
0.9¢	1.1¢	1.8¢
Annual cost to median home		
\$6.36	\$8.17	\$12.94

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- A training building will provide an in town, centrally located classroom-style training space for the Fire Department so response times are less negatively impacted.
- Allows for meeting rooms of different sizes to accommodate the community, City related events, and training needs.
- Option A: 1,000 square foot portable.
- Option B: 1,500 square foot single story building with meeting rooms, offices and restrooms.
- Option C: 4,500 square foot single story building with meeting rooms, offices, a kitchen, locker rooms, storage, and restrooms.
- Included in the cost of each option is a stormwater vault and site development costs totaling ~\$2M.







## BALLOT MEASURE ELEMENTS

- Improve response times.
- Firefighter Health & Safety Upgrades.
- Improve versatility of training.
- Adapt to new infrastructure.
- Situated in the back of Station 24.

Estimated Costs per \$1,000AV

If built in 2026

A	B	C
\$ 7,285,000	\$ 7,790,000	\$ 9,250,000
30 year bond		
1.3¢	1.4¢	1.7¢
Annual cost to median home		
\$9.56	\$10.22	\$12.14

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Provides hands-on, live burn training in town with infrastructure that mirrors that of the community.
- Reduced negative system impact to response times if crews can stay in Kirkland for training.
- Option A: One townhouse (with live burn), and one 3 story commercial/residential building (with one stairwell).
- Option B: One townhouse (with live burn), and one 3 story commercial/residential building (with two stairwells and live burn).
- Option C: Two townhouses (with live burn), one 3 story commercial/residential building (with two stairwells and live burn).
- Included in the cost of each option is a stormwater vault and site development costs totaling ~\$2M.







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### TIER 3: SERVICE UPGRADES

## ADDITIONAL FIREFIGHTER / EMT

Bring cross staffed crew from 3, to 4



## BALLOT MEASURE ELEMENTS

- Improved Response Times.
- Hire 5 additional firefighter/EMTs to bring the minimum staffing from 3, to 4 at one or more stations.

Estimated Cost per \$1,000AV

Permanent Levy	2.6¢
Annual cost to median home	\$18.83

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Improve response times for fire and EMS calls.
- Allows arriving engine crew to immediately attack a fire.
- Allows for two aid car responses from one station.







# ADDITIONAL TRAINING OFFICER



## BALLOT MEASURE ELEMENTS

- Firefighter Health & Safety Upgrade.
- Hire an additional Training Officer.

### Estimated Cost per \$1,000AV

Permanent Levy	0.59¢
Annual cost to median home:	\$4.30

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- A Training Officer ensures every firefighter/EMT has the skills and training to keep the community and their fellow crewmembers safe.
- The Training Officer trains firefighter/EMTs on all aspects of fire and emergency medical response. Examples include:
  - » Fire suppression
  - » CPR
  - » Technical Rescue
  - » Water Rescue
- The Training Officer is also the liaison between neighboring jurisdictions' Fire Departments and helps to coordinate interdepartmental trainings.







# ADDITIONAL BATTALION CHIEF AIDE



## BALLOT MEASURE ELEMENTS

- Hire 5 firefighter/EMTs to provide a permanent Battalion Chief Aide.

**Estimated Cost per \$1,000AV**

Permanent Levy	2.6¢
Annual cost to median home	\$18.83

[www.kirklandwa.gov/FireBallot2020](http://www.kirklandwa.gov/FireBallot2020)



## BALLOT MEASURE ELEMENT DETAIL

- Provides assistance to the Incident Commander on higher risk calls that require multiple units.
- The BC Aide monitors the incident with second set of eyes and ears ensuring messages and assignments are not missed.
- Allows the Battalion Chief to begin incident management en-route to an incident as the Aide drives the Command Vehicle.
- Insures Washington Administrative Code mandated activities at a fire are documented.
- Establishes an Incident Action Plan, ensure firefighter accountability, and incident tracking.
- Hire 5 firefighter/EMTs to backfill a BC Aide.
- Assist Battalion Chief with daily activities such as:
  - » Scheduling
  - » Programs
  - » Training
  - » Projects
  - » Evaluations





# POTENTIAL BALLOT MEASURE ELEMENTS

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## Tier 1: Critical Needs

Capital	2021	Estimated Annual Median Home Cost	2026	Estimated Annual Median Home Cost
Station 27	3.5¢	\$25.19	4.2¢	\$30.64
Station 22	1.6¢	\$11.46	1.9¢	\$13.94
Station 26	1.4¢	\$10.15	1.7¢	\$12.35
Station 21	1.0¢	\$7.36	1.2¢	\$8.95
Operational	2021	Estimated Annual Median Home Cost		
Dedicated Aid Car @ FS 22			5.2¢	\$37.65
Cross Staff FS 24			2.6¢	\$18.83

## Tier 2: Remaining Strategic Plan and WSRB Recommendations

Capital	2021	Estimated Annual Median Home Cost
2nd Ladder Truck	0.29¢	\$2.11
Operational	2021	Estimated Annual Median Home Cost
Dedicated 12hr Transport	2.1¢	\$15.06
Fire Prevention Inspector	0.55¢	\$4.02
Public Information Officer	0.40¢	\$2.90

## Tier 3: Service Upgrades

Capital	2026	Estimated Annual Median Home Cost
Logistics Center	0.14¢	\$0.99
Option A Training Building	0.9¢	\$6.36
Option B Training Building	1.1¢	\$8.17
Option C Training Building	1.8¢	\$12.94
Option A Training Props	1.3¢	\$9.56
Option B Training Props	1.4¢	\$10.22
Option C Training Props	1.7¢	\$12.14
Operational	2021	Estimated Annual Median Home Cost
Training Officer	0.59¢	\$4.30
Additional Firefighter	2.6¢	\$18.83
Battalion Aide	2.6¢	\$18.83



What an additional 1¢ (per \$1,000AV) generates	Estimated Annual Median Home Cost
Permanent levy \$315,247	\$7.30
30-year bond \$5,566,000	\$7.30
Estimated 2019 Median Home Value	\$730,000

What an additional 1M (per \$1,000AV) costs	Estimated Annual Median Home Cost
Permanent levy 3.2 ¢	\$23.16
30-year bond \$0.00175	\$1.31
Estimated 2019 Median Home Value	\$730,000







# MY BALLOT MEASURE ELEMENTS

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Tier 1: Critical Needs	Capital	2026	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	Station 27	4.2¢		\$30.64
	Station 22	1.9¢		\$13.94
	Station 26	1.7¢		\$12.35
	Station 21	1.2¢		\$8.95
	Operational	2021	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	Dedicated Aid @ FS 22	5.2¢		\$37.65
	Cross Staff FS 24	2.6¢		\$18.83
<b>TOTAL</b>			¢	

Tier 2: Strategic Plan & WSRB	Capital	2021	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	2nd Ladder Truck	0.29¢		\$2.11
	Operational	2021	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	Dedicated 12hr Transport	2.1¢		\$15.06
	Fire Prevention Inspector	0.55¢		\$4.02
	Public Information Officer	0.40¢		\$2.90
	<b>TOTAL</b>		¢	

Tier 3: Service Upgrades	Capital	2026	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	Logistics Center	0.14¢		\$0.99
	Option A Training Building	0.9¢		\$6.36
	Option B Training Building	1.1¢		\$8.17
	Option C Training Building	1.8¢		\$12.94
	Option A Training Props	1.3¢		\$9.56
	Option B Training Props	1.4¢		\$10.22
	Option C Training Props	1.7¢		\$12.14
	Operational	2021	Include? 1¢/\$1,000	Estimated Annual Median Home Cost
	Training Officer	0.59¢		\$4.30
	Additional Firefighter	2.6¢		\$18.83
	Battalion Aide	2.6¢		\$18.83
	<b>TOTAL</b>		¢	
<b>GRAND TOTAL</b>			¢	



What an additional 1¢ (per \$1,000AV) generates	Estimated Annual Median Home Cost
<b>Permanent levy</b> \$315,247	\$7.30
<b>30-year bond</b> \$5,566,000	\$7.30
<b>Estimated 2019 Median Home Value</b>	\$730,000

What an additional 1M (per \$1,000AV) costs	Estimated Annual Median Home Cost
<b>Permanent levy</b> 3.2 ¢	\$23.16
<b>30-year bond</b> \$0.00175	\$1.31
<b>Estimated 2019 Median Home Value</b>	\$730,000



# BALLOT MEASURE ELEMENT TOTALS

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Critical Needs	Levy	Estimated Annual Median Home Cost
Capital 2026	9.0¢	\$65.88
Operational 2021	7.7¢	\$56.48
<b>Total</b>	<b>16.76¢</b>	<b>\$122.36</b>

Remaining Strategic Plan and WSRB Recommendations	Levy	Estimated Annual Median Home Cost
Capital 2021	0.29¢	\$2.11
Operational 2021	2.9¢	\$21.98
<b>Total</b>	<b>3.23¢</b>	<b>\$24.09</b>

Service Upgrades	Levy	Estimated Annual Median Home Cost
Capital 2026	3.6¢	\$26.07
Operational 2021	5.7¢	\$41.96
<b>Total</b>	<b>9.32¢</b>	<b>\$68.03</b>

<b>Overall Total</b>	<b>29.31¢</b>	<b>\$214.48</b>
----------------------	---------------	-----------------





**Emergency Services Consulting**  
*International*

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## **Letter of Transmittal**

August 27, 2012

Mr. Kurt Triplett  
City Manager  
City of Kirkland  
123 5th Ave.  
Kirkland, Washington 98033

Dear Mr. Triplett:

Enclosed please find the final report in response to your request for an organizational evaluation, future plan, feasibility of cooperative service delivery, and organizational strategic plan for the Kirkland Fire & Building Department. The associates of ESCI have appreciated the opportunity to work with the community, city staff, and employees of the Kirkland Fire & Building Department in the completion of this project.

We have presented this report in three major sections: organizational and community overview, fire and building department findings and recommendations, and strategic plan recommendations and priorities. A number of appendices are attached that will provide helpful information for the city and fire department.

It is our intent to meet and exceed your expectations and to be available to you after the project is complete. Should you have questions do not hesitate to contact me at our headquarters office in Wilsonville, Oregon, at (503) 570-7778. It has been our pleasure to work with the professional and highly dedicated staff of the Kirkland Fire & Building Department.

Sincerely,

A handwritten signature in black ink that reads "Jack W. Snook". The signature is written in a cursive, flowing style.

Jack W. Snook  
President, COO



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## **Acknowledgements**

Emergency Services Consulting International (ESCI) would like to acknowledge that without the assistance and support of the administrative staff and personnel of the City of Kirkland and the Kirkland Fire & Building Department, this project could not have been completed.

### **City Council**

Joan McBride, Mayor  
Doreen Marchione, Deputy Mayor  
Amy Walen, Council Member  
Dave Asher, Council Member  
Bob Sternoff, Council Member  
Penny Sweet, Council Member  
Toby Nixon, Council Member

### **City Administration**

Kurt Triplett, City Manager  
Marilynne Beard, Assistant City Manager and Project Lead

### **Fire and Building Department**

Kevin Nalder, Fire Chief  
Tom Phillips, Building Services Manager  
Helen Ahrens-Byington, Deputy Fire Chief  
Jack Henderson, Deputy Chief of Operations



## Executive Summary

Emergency Services Consulting International (ESCI) was retained by the City of Kirkland, Washington, to conduct an organizational evaluation, future planning and feasibility of cooperative service delivery study, and an organizational strategic plan for the Kirkland Fire & Building Department (KF&BD).

Initiated in January 2012, the project involved a review of a substantial amount of background



information and data supplied by the City of Kirkland and KF&BD staff. ESCI's associates spent four days on-site conducting stakeholder interviews with personnel from all levels of the City and the fire and building department. ESCI's methodologies included a detailed analysis of collected data. This information was combined with interviews of key staff members and the affected stakeholders, as well as direct

observation of facilities and apparatus, and became the foundation for the in-depth study of all aspects of the administrative, operational, and support services of the KF&BD's current service delivery.

### **Scope, Purpose, and Report Conventions**

The purpose of the study was to provide a third party independent organizational evaluation, a plan for the future, an assessment of the feasibility of cooperative efforts, and facilitation of the development of an organizational strategic plan for the KF&BD (Kirkland Fire & Building Department). Officials desired to understand how well the fire and EMS (emergency medical services) system is working and whether the fire department can provide services more efficiently. Specifically, the scope of services requested by the City of Kirkland included:

- A comprehensive review of the current conditions of the KF&BD, including a baseline assessment and current service delivery performance analysis
- A focused, objective analysis of overall fire department emergency response operations
- Development of an inventory of opportunities under which the KF&BD (Kirkland Fire & Building Department) and its neighboring emergency response agencies can work more closely together to increase efficiency and effectiveness.

- Identification and analysis of the feasibility of strategies
- Based on the identified cooperative service delivery options:
  - Findings and the feasibility of each option
  - Identification of the preferred option or options
  - Description of governing body actions and necessary policy action
  - Implementation timelines and recommendations
  - Process issues including legal considerations, management and governance, and funding
- Facilitate the development of a KF&BD strategic plan document involving:
  - A local planning team (12 to 20 persons) including representatives of city management and various levels of the agency itself
  - A two-day strategic planning retreat
  - An analysis of the strengths, weaknesses, opportunities for, and threats to the organization
  - Identification of critical issues
  - Development of a vision, mission, and values statements
  - Establishment of goals and objectives
  - Establishment of performance measures

### Report Layout

The organizational evaluation, assessment of current conditions, findings, feasibility of cooperative efforts, and strategic planning is catalogued into the following subject areas:

- Organizational and Community Overview
  - Kirkland Community Description and Demographics
  - City of Kirkland Organization Description
  - Fire and Building Department
- Fire and Building Department Findings and Recommendations
  - Summary of Stakeholder Input
  - Department Mission and Values
  - Management Components
  - Emergency Management (Disaster Preparedness)
  - Fire Prevention Bureau
  - Fire and Emergency Medical Services (Emergency Response)
  - Accountability and Reporting
- Strategic Plan Recommendations and Priorities

- Major Findings and Recommended Priority Goals
- Strategic Goals
- Appendices

Each section in the report provides the reader with general information about that element, as well as observations and analysis of any significant issues or conditions. ESCI's observations are supported by data collected as part of the document review and interview process. Specific recommendations are included to address identified issues and opportunities for service improvement, efficiencies, and future cost avoidance.

The purpose of this review and evaluation is twofold: First, it provides the KF&BD and City with a valuable assessment of the organization, its assets, and service delivery methods. Secondly, the review equips ESCI staff with a detailed and comprehensive understanding of the KF&BD, which is essential to the strategic planning process and determining potential cooperative service delivery efforts with other emergency service providers.

### **General Assessment**

It is the professional opinion of ESCI that the Kirkland Fire and Building Department is a high-quality organization with the potential to become a great organization. The staffs are dedicated and skilled professionals committed to providing the City of Kirkland's citizens and visitors with the highest possible level of service. Elected officials for the City of Kirkland all recognize the high degree of importance of these services in ensuring the public safety of their community. Citizens and visitors can be assured that the members of the KF&BD are professional in the delivery of fire and emergency medical services. The level at which service is delivered is commensurate with other fire departments in the region.

An operational tension has developed between the KF&BD and other City departments. While there is no single reason for the division, the divisive relationship is hampering the Finance and Administration Department, Human Resources and Performance Management Department, City Manager's Office, and the Fire & Building Department from operating as efficiently as possible. To a lesser degree the rapport is challenged with other departments. During the time of this study the City administration has initiated corrective actions to improve relations. The process of improving working relationships will take time and effort but is necessary for the City departments to operate effectively.

ESCI found other areas of concern that impede the efficient operation of the KF&BD, primarily in the administration and support level. Work efforts of the two deputy fire chiefs should be directed at the highest level of administration and oversight of the fire department. Presently a large percentage of time is dedicated to work unrelated to administration. Updating job descriptions and affirming the expectations of administration and support staff is required.

It is our opinion that the number of KF&BD support staff is inadequate to meet the needs of the fire department and the expectations of the City. While it is possible to assign a staff person responsibility to work directly with the fire department from finance, IT, or HR, so far this approach has not been effective. Even if this assignment arrangement were successful, the KF&BD requires additional administrative and support positions. Support staffing has remained static or decreased even as the number of emergency operations personnel and the services of the fire department have increased.

An issue compounding the administration and support staffing problem has been KF&BD's inability to harness technology. Without integration of technology tools, the fire department will continue to struggle to provide information for analysis and benchmarking performance based outcomes. Successful implementation of the New World CAD by NORCOM is seen as one of the primary solutions to the problem.

An Efficiency and Effectiveness Study commissioned by the City of Kirkland and King County Fire District #41 was conducted on the KF&BD in 2008. Many of the study's major findings and major recommendations have not been addressed and are still outstanding.<sup>1</sup> They include:

- The high level of EMS responses has the unintended consequence of lowering the level of fire protection.
- KF&BD is totally dependent upon mutual and automatic aid response for marine rescue/firefighting.
- The measurement of response time standard is flawed and overly ambitious.
- EMS response crew size should be reduced from three to two.
- KF&BD failed to meet response time standard 50 percent of the time from 2004-2007.

To discourage this organizational evaluation, feasibility, and strategic plan from lying fallow, ESCI recommends the Kirkland City Council prioritize and adopt the goals found in this report. To have a fruitful outcome of the recommended top priority goals requires the KF&BD to have

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<sup>1</sup> See Appendix B: Management Advisory Group, Recommendations and Findings.

the authority, resources, responsibility, and accountability for implementation. To that end each strategic plan goal includes:

- Goal Statement
- Recommended Actions
- Implementation Metrics
- Resources Required

All of the pieces are in place for the KF&BD to become the organization, “known for consistently meeting our citizens’ needs and epitomizing a winning “major league” team; our efforts build community ownership and pride in our brand.”<sup>2</sup>

### **Fire and Building Department Findings and Recommendations**

A total of 90 recommendations are provided throughout this report. The following sections summarize the major findings and key recommendations related to each.

#### **Organizational and Community Overview**

Organizational and community overview is a summary of basic information about the City of Kirkland, Washington, and the Kirkland Fire and Building Department. It includes an overview of City governance; organizational structure; service area size; the community environment; resources dedicated to the fire and emergency medical services (EMS), the building division, and emergency management; and a financial survey. Significant findings include:

- ❖ Kirkland’s 2011 population is estimated to be 80,505, a 62.24 percent increase from 2010. The increase is connected to the annexation of Fire District #41, a portion of Fire District #36 (Woodinville), and a small area of Fire District #34 (Redmond). Annexation increased the service area slightly as KF&BD already provided contracted service to King County FD #41 prior to the annexation.
- ❖ KF&BD’s organizational structure, while atypical in that the director has oversight of building services, emergency management, and the fire department, is functioning well.
- ❖ KF&BD’s most recent survey by the WSRB (Washington Surveying and Rating Bureau) was in June 1995. Improvements in staffing, apparatus, and fire stations suggest that KF&BD would benefit from a re-evaluation by WSRB.
- ❖ Kirkland has developed financial long-term plans for operating KF&BD that include a CIP (capital improvement plan) for the acquisition of major assets for the fire department.
- ❖ In March of 2011, KF&BD began charging for BLS (basic life support) EMS transports from medical incidents.

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<sup>2</sup> Source: KF&BD Strategic Goal No. 1, Goal Statement.



### Fire and Building Department

The single largest change to occur for the City of Kirkland in years was the annexation in June 2011. KF&BD was already providing contract fire and emergency services to Fire District #41 and added coverage to a portion of Fire District #36 (Woodinville) and a small area of Fire District #34 (Redmond) as a result of the annexation. While KF&BD added emergency response personnel to serve the annexed area, there was no corresponding increase in administration and support. Recommended actions include:

- ❖ Amend job descriptions to accurately reflect roles and expectations for administration and support staff.
- ❖ Increase emergency operations by adding a BLS aid unit staffed between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire event.
- ❖ Annually conduct a detailed analysis of revenue versus expenditure to validate that EMS transportation activity is meeting stated goals established by the City.
- ❖ Bill for EMS transport when responding and transporting patients outside of the City of Kirkland.
- ❖ Add one FTE administrative assistant for EMS and one FTE financial analyst to administrative support functions.

### Summary of Stakeholder Input

To validate the mission, vision, and values of the KF&BD, ESCI solicited input from internal and external stakeholders (City Council, City Management, KF&BD Members, neighboring service providers) through two separate venues: one-on-one interviews conducted by the ESCI team during the initial data gathering process and a citizens group formed to participate in the strategic planning process. As part of the interview process, the internal and external stakeholders were asked to identify their perspectives on the department's strengths and weaknesses, as well as the challenges facing the department and critical issues it needs to address. The most frequently reported input for each was:

- Organizational Strengths
  - Community satisfied with service
  - Best trained and highest morale in the area
  - Training division is good; personnel are well trained
  - Department has good people and a good leader
- Organizational Weaknesses
  - Geography; jurisdictional boundaries
  - Money
  - Need for a fireboat

- Stability and predictability in costs; any incident will generate overtime
  - Containing growth of call volume; growing number of non-emergency calls
  - External political forces
- Challenges
  - Response time
  - Slow growth of expenses
  - Funding, leadership, too few administrative staff
  - Overpricing of service
  - Housing prices down
  - Underprepared for a disaster
- Critical Issues
  - Coverage in annexation area
  - Funding that is sustainable for all city departments
  - Funding, levy approval for Medic One program
  - Ongoing workload/cultural shift
  - Need to be more community connected; need to be more agile in addressing change

### Department Mission and Values

A validated mission statement is clearly stated and intentionally simplistic; the Kirkland Fire Department *Mission* accurately describes the organization's general purpose. The Mission Statement for the Kirkland Fire Department validated during this study is:

*Providing timely, emergency response and safeguarding the lives, property, and environment of our community.*

### Management Components

Fundamental tools necessary for organizational management are inadequate. ARs (administrative rules) and SOGs (standard operating guidelines) specific to the fire department were generally outdated. Additionally, variations exist between City and KF&BD AR documents including safety, purchasing, and public access to records and document retention. There should be a sense of urgency given to developing a complete set of documents.

Internal tension between the KF&BD and Finance and Administration (F&A) is concerning, though recent moves on the part of the two directors has made what is described as "improvement" to the working relationship.

KF&BD's management of external communication efforts has been reduced to reacting to media worthy events.

Highlights and ESCI recommendations for management components include:

- ❖ Outsource development and maintenance of Administrative Rules and Standard Operating Guidelines to a third party. Development and maintenance of Administrative Rules and Standard Operating Guidelines should include involvement of the City human resource department.
- ❖ Prioritize media messaging. Use "Currently Kirkland" and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages.
- ❖ Develop a procedure and policy for reporting and retaining all employee exposure records.
- ❖ Establish a medical baseline for new firefighters at the time of hire/appointment.
- ❖ Provide a fire service-related occupational and health program.

#### Emergency Management (Disaster Preparedness)

Given the number of tasks and functions required of managing an emergency management program, KF&BD is performing well considering the lack of FTEs allocated to the program. However, this comes at an opportunity cost to the fire department by squeezing out other program needs (financial, HR, and IT services to name a few) that would otherwise be provided by the deputy chief of administration. Acquiring additional staff to provide the daily work necessary to maintain a state of readiness would free the deputy chief to perform other essential tasks directly related to the administration of the fire department, relegating the emergency management workload to providing management guidance and gravitas to the program.

Highlights and ESCI recommendations for emergency management include:

- ❖ Develop and implement a plan outlining how volunteers will be used and managed during emergency events.
- ❖ Identify a location and develop a dedicated EOC; apply for a matching grant from the Washington EMD Emergency Operations Center Grant Program (requires a 25 percent local match).
- ❖ Complete and publish the Continuity of Operations (COOP) and Continuity of Government (COG) plans.
- ❖ Develop a Hazard Identification and Vulnerability Assessment and a Hazard Mitigation Plan. Submit to King County for inclusion as an annex to the County plan.
- ❖ Hire a full-time City emergency manager, shifting daily responsibilities from the Deputy Chief of Administration to the emergency manager.

### Fire Prevention Bureau

The City of Kirkland's process for construction permitting delivers a higher level of service than is commonly seen by involvement of the fire and building departments from pre-application conference for commercial developments and continuing throughout the construction process.

KF&BD current completion rate for scheduled annual inspections of an estimated 20 percent may expose emergency services personnel and public to unacceptable risk during a fire event.

Fire and life-safety public education efforts of the KF&BD were limited to outside special requests that have since been discontinued.

Highlights and ESCI recommendations for the fire prevention bureau include:

- ❖ Integrate KF&BD fire prevention records management with the EnerGov RMS software used by the Building Division.
- ❖ Conduct a fire and life-safety inspection of all inspectable occupancies in the next 12 months. If necessary use emergency services personnel to complete inspections.
- ❖ Develop and adopt a plan for the maintenance, repair, and flow testing of all fire hydrants in the City of Kirkland.
- ❖ Acquire and deploy electronic tablet devices for field data entry and rapid downloading to the records management system.
- ❖ Adopt a local residential sprinkler ordinance for new residential construction.

### Fire and Emergency Medical Services (Emergency Response)

The hierarchal structure of the KF&BD operates as intended with the building services manager. In contrast, ESCI found that in practice the fire chief is the direct report for any number of other fire department personnel and activities. Deputy fire chiefs routinely perform administrative, technician, and clerical tasks. Time devoted to activities outside of essential functions and principal accountabilities have reduced the deputy chiefs' availability to perform job critical administrative and supervisory duties.

Given the number of FTEs dedicated to emergency operations (a minimum staffing of 19 per day, 30 personnel assigned to each shift), KF&BD's use of overtime is appropriate. Leave time use categorized as sick leave and injury is considered to be high.

EMS is expected to continue as the predominate factor affecting service demand. ESCI recommends that the KF&BD move forward and analyze the feasibility of contracting ALS response services with Medic One.

Capital facilities, apparatus, and capital equipment for the KF&BD constitute a large investment. Planning for remodels and the replacement of fire stations is a major capital expense and requires long-range planning. With two fire stations nearing their life expectancy, ESCI recommends that a capital plan for the rebuild or replacement of fire stations be developed. It is further recommended that KF&BD develop an internal long-term plan for funding the maintenance and replacement apparatus and capital equipment that aligns with the City CIP. The KF&BD pay rates into internal service fund reserves for facility and vehicle replacements and a sinking fund for replacement of equipment is being developed in cooperation with the Finance Department.

KF&BD relies on automatic aid to have adequate personnel for most fire incidents. Over the past two years, each of the neighboring fire and EMS agencies has gone through some reduction of fire stations, staffed apparatus, or personnel. To mitigate the reduction and improve coverage to the northwest (Finn Hill) area of the City, ESCI recommends that the KF&BD construct and staff a joint fire station with the Northshore Fire Department.

There are two alternative methods for KF&BD to meet the current adopted response time objectives. First, change the response time objectives to match the response that the fire department is able to meet. Second, add facilities, emergency response units, and personnel to the department to the level that will meet the response objectives. For Kirkland to increase resources requires a large capital investment and ongoing expenditures. Capital requirements involve the addition of two fire stations, one in the Finn Hill neighborhood and a second in the southern section of the City. Each fire station would need an engine and aid unit and a minimum of six personnel per day to cross-staff the units.

Of the potential partnerships with neighboring fire and EMS service providers, ESCI considers Northshore and Bellevue fire departments to be feasible partners. Consolidation of fire and EMS into a single operational unit, either through Interlocal Agreement (ILA) or the formation of an RFA would provide increased fire and emergency service efficiency in the areas served by the three fire departments.

ESCI developed 34 cooperative efforts strategies that the KF&BD could pursue. They are judged as being feasible and most likely to result in significant improvement to systems and/or programs. These strategies should be acted on regardless of action on a regional partnership.

Highlights and ESCI recommendations for fire and emergency medical services include:

- ❖ Store personnel protective equipment (PPE) in a separate, well ventilated room.
- ❖ Establish a minimum requirement for annual company and individual training evaluations. Include shift battalion chief involvement in annual evaluations.
- ❖ Jointly construct and staff a new fire station with Northshore FD. The fire station should be located in an area to serve the Finn Hill neighborhood and Northshore FD.
- ❖ Provide Advanced Life Support (ALS) services within the City of Kirkland via the King County Medic One program.
- ❖ Modify the EMS response protocol of sending three responders to medical incidents. Redeploy with dedicated staffing of two-person aid units, or single person quick response unit for low priority EMS incidents.
- ❖ Expand the current partnership with the King County Sheriff's Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to marine firefighting and rescue incidents.

### Accountability and Reporting

While the KF&BD is mostly meeting accountability and reporting requirements, there is a need for improvement. The accreditation process is one way for a fire department to make certain it is covering all of the accountability and reporting bases. The process of becoming an accredited agency is a time consuming, labor intensive, costly process. Therefore ESCI has recommended that the KF&BD make accreditation a long-term item and focus on other issues first.

In the last *Response Time Objectives Report* submitted (2010), KF&BD did not define the geographic areas where requirements are not being met, or explain predictable consequences, or the steps necessary to achieve compliance. KF&BD is meeting its stated response performance goals (including turn out time) approximately 50 percent of the time. KF&BD has not developed options to improve response performance. Without action to improve response time performance, subsequent reports will include similar results.

Tools for the reporting and archiving of data and information of KF&BD activities are labor intensive. This is exemplified by the number of staff hours required to capture background information for this study. Most of the improvements to reporting hinge on deployment of the New World CAD. Efforts should be directed at the implementation of the CAD system.

ESCI recommends that KF&BD disseminate reports (information) in a dashboard display customized for the end user.

Highlights and ESCI recommendations for accountability and reporting include:

- ❖ Adopt a two tiered response time objectives for fire, EMS, hazardous materials, technical rescue, and specialized rescue incidents.
- ❖ Develop and adopt response time intervals, benchmark, and review at a minimum annually.
- ❖ NORCOM – Establish communication center performance measurement benchmarks that meet national standards.
- ❖ Adopt turnout time standards based on incident type and time of day.
- ❖ Integrate the New World RMS (records management system) with emergency management plans, records, and reports.

### **Major Findings and Recommended Priority Goals**

ESCI's recommended priority goals for the KF&BD result from stakeholder interviews with community members, policymakers, administration, KF&BD, neighboring fire department leadership, the organizational evaluation, and ESCI's analysis and experience. Recommended priority goals were developed in recognition of what is important to the public. Initiatives and key priorities were assigned recommended actions and implementation metrics to track progress over time. The goals are ambitious but realistic targets that are achievable.

#### **Goal No. 1: Administrative Infrastructure**

Goal Statement: Build an administrative infrastructure that efficiently provides administration and support functions for KF&BD. (Administrative and support staff realignment, administrative rules, and guidelines)

#### **Goal No. 2: Staffing and Deployment**

Goal Statement: Increase the ready availability of fire apparatus and personnel. (Swing staffing of aid units and engine/ladder companies and staffing levels)

#### **Goal No. 3: Outreach and Education**

Goal Statement: Provide contemporary, practical fire prevention, EMS, and emergency management education and informational services to the community. (PIO, PEO, and community preparedness)

#### **Goal No. 4: Performance**

Goal Statement: Develop, measure, and meet response and measurable performance benchmarks. (Response time)



**Goal No. 5: Partnerships**

**Goal Statement:** Develop partnerships with neighboring fire and EMS agencies to improve services and the level of service in a cost efficient manner. (Training, maritime response, joint staffing of fire stations, RFA)

**Strategic Goals**

The following are ESCI's recommended strategic goals internal to the KF&BD. Community members, policymakers, administration, and KF&BD personnel participated in a two day process to assist in developing priorities for the Kirkland Fire Department strategic plan. Five of the seven are incorporated as top priority goals. The remaining two are internal strategic organizational goals that meld with the validated mission, vision, and values of the KF&BD.

**Strategic Organizational Goal No. 1: KF&BD Branding**

**Goal Statement:** Create an attractive brand for KF&BD to inform and market our services

**Strategic Organizational Goal No. 2: KF&BD Internal (City) Relationships**

**Goal Statement:** Enhance a positive culture with internal customers; Kirkland Fire Department and other City Departments





## Organizational and Community Overview

### Kirkland Community Description and Demographics

The Organizational and Community Overview section provides information and establishes a starting point of facts about the City of Kirkland, Washington, and the Kirkland Fire & Building Department (KF&BD). It includes an overview of City governance; organizational structure; service area size; the community environment; resources dedicated to the fire and emergency medical services (EMS), the building division, and emergency management; and a financial survey. A detailed analysis of the service delivery system is provided in a subsequent section. *(Historical statistical information and data on population, demographics, annexation, and land-use in the overview are used in the service demand forecast for KF&BD.)*

#### Service Area Population and Demography

Located on the eastern shore of Lake Washington east of Seattle, Kirkland has a unique downtown waterfront (the only Eastside downtown frontage along Lake Washington's shoreline),<sup>3</sup> lined with restaurants, galleries, a performing arts center, public parks,<sup>4</sup> and beaches. Kirkland is considered a suburban city, surrounded by other suburban cities and pockets of unincorporated King County. Major transportation routes serving the area include Interstate 405, Washington State Route 520, and Interstate 5. These routes connect the City economically and socially to the greater Seattle area.<sup>5</sup>



Kirkland was founded in 1890 by Peter Kirk (1860–1916), an established steel mill owner from Workington, England.<sup>6</sup> Since only U.S. citizens were allowed to own property, Kirk with the help of Leigh A. J. Hunt, publisher of the *Seattle Post-Intelligencer* in June of 1888, purchased 5,000 acres. Streets were platted and homes were built for the workers that would be needed to run the mill. Modeled after Kirk's mill in England, it would employ thousands of workers who would

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<sup>3</sup> Peyton Whitely (1998-02-25). "Kirkland's downtown dilemma rules to save local flavor could price it out of existence". *The Seattle Times*, Retrieved March 21, 2012.

<sup>4</sup> Photograph of Marina Park, permission granted for use, GNU Free Documentation License.

<sup>5</sup> Source: City of Kirkland, Washington Comprehensive Annual Financial Report, For the Fiscal Year Ended December 31, 2010, Tracey Dunlap, Director of Finance and Administration, page 4.

<sup>6</sup> A Look To The Past: Kirkland: From wilderness to high-tech - Kirkland history in 50 vignettes, Matthew, W. McCauley, CreateSpace (November 23, 2010).

live in the city that would grow around it. Proclaimed as the "The Pittsburgh of the West", the mill never produced any steel or iron but a city had been born.

From the 5,000 original acres in 1890, Kirkland grew to 10.70 square miles over the next 120 years (1890 to 2010). In 2011 through an annexation of the Juanita, Finn Hill, and Kingsgate neighborhoods, Kirkland is now approximately 17.90 square miles.<sup>7</sup> A chronological history of annexations and geographic growth of the City of Kirkland shows that it has grown in size on 12 different occasions (Figure 1).

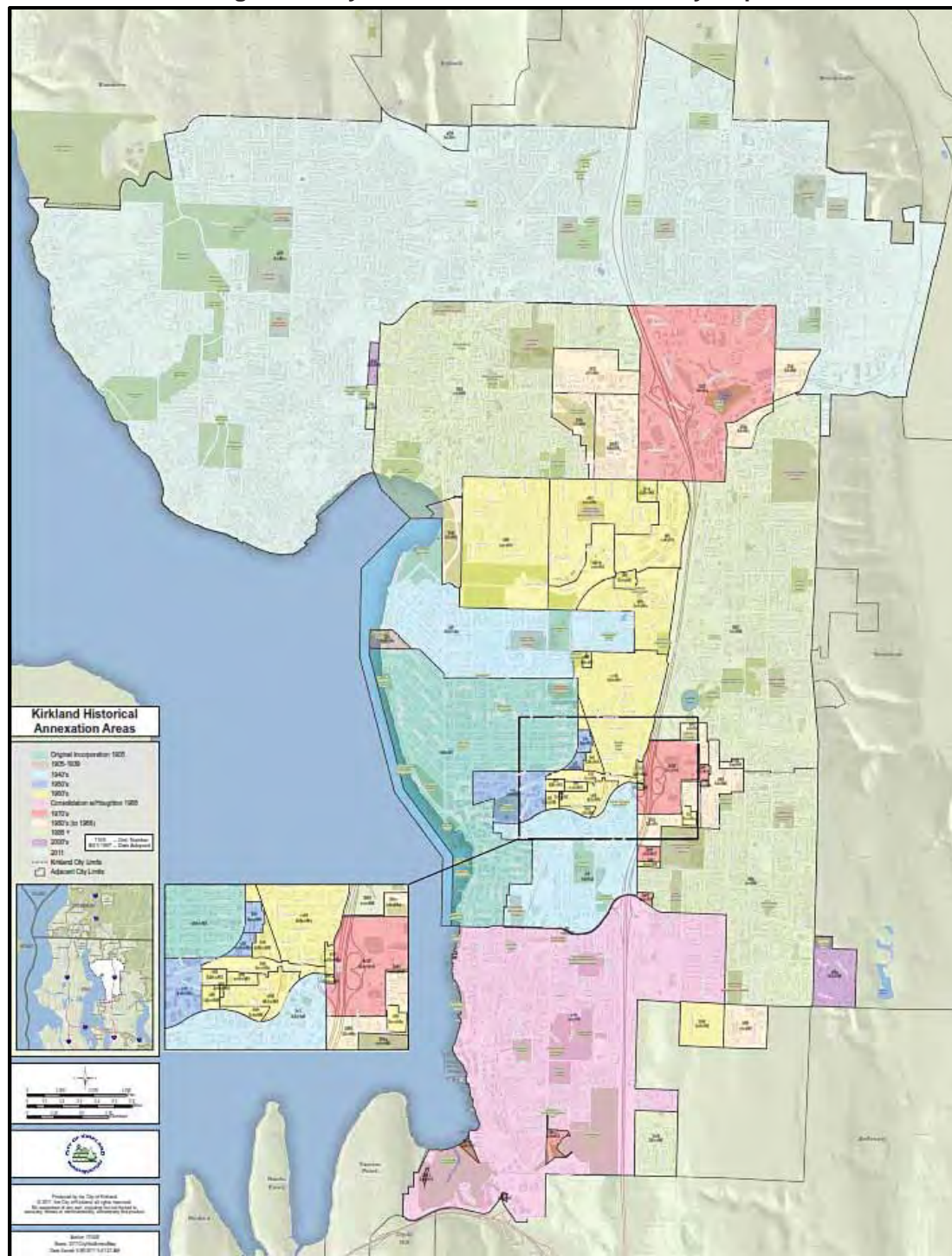
**Figure 1: City of Kirkland Annexation History**

Years	Square Miles Annexed	Cumulative Square Miles
1905 – 1910	0.88	0.88
1910 – 1920	0.00	0.88
1920 – 1930	0.01	0.89
1930 – 1940	0.00	0.89
1940 – 1950	1.00	1.89
1950 – 1960	0.11	2.00
1960 – 1970	3.39	5.39
1970 – 1980	0.84	6.23
1980 – 1990	4.19	10.42
1990 – 2000	0.00	10.42
2000 – 2010	0.00	10.42
2010 – 2011	7.80	17.90

Figure 2 is a visual depiction of annexations to the City of Kirkland.<sup>8</sup>

<sup>7</sup> City of Kirkland background data lists 17.9 square miles in the City.

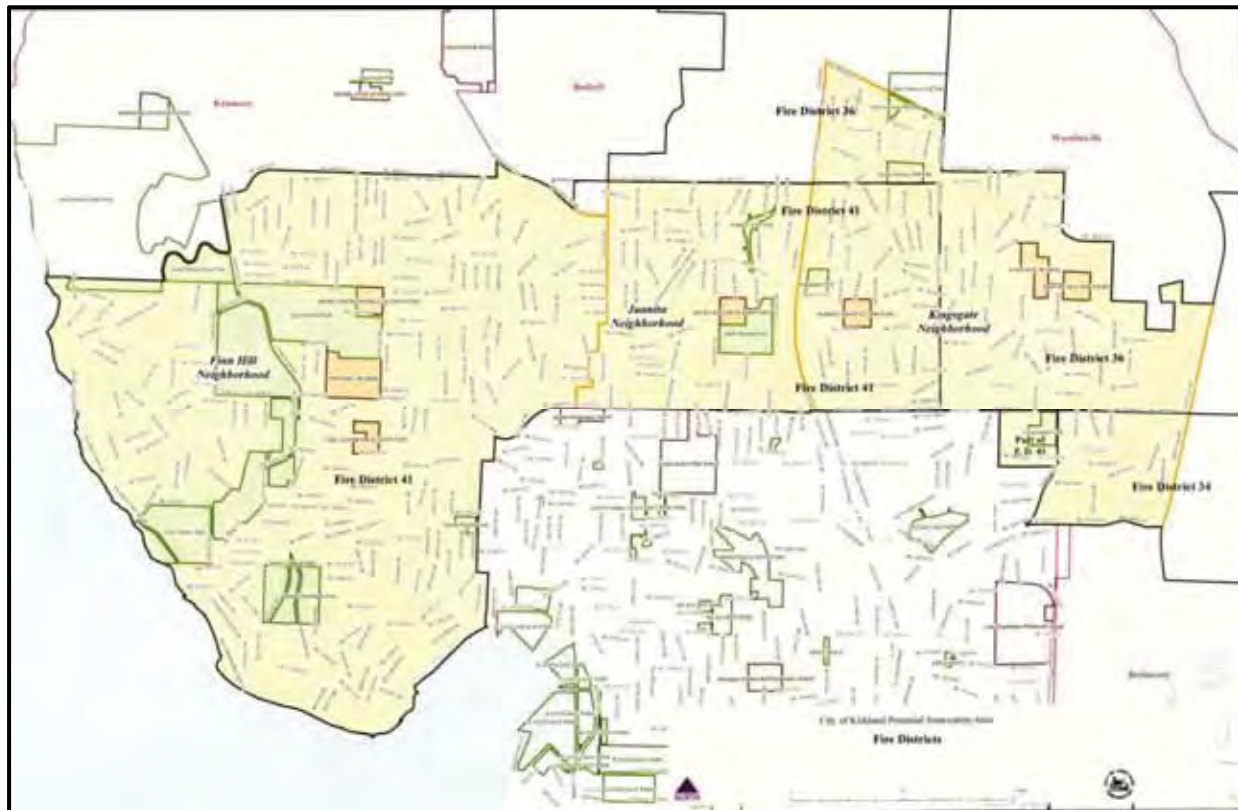
<sup>8</sup> Source: City of Kirkland GIS Administrator, Karl Johansen.

**Figure 2: City of Kirkland Annexation History Map**

While the City's footprint grew significantly in 2011, the area served by KF&BD increased only marginally. Under terms of a contractual relationship KF&BD already provided fire, EMS, and emergency response services to King County Fire Protection District #41 (KCFD #41). The new service area for KF&BD involved two smaller areas previously served by Woodinville and

Redmond. Figure 3 is a view of the June 2011 annexation area<sup>9</sup> and its relationship to the City of Kirkland.

**Figure 3: Annexation Area, June 2011**



The 2011 population of Kirkland is estimated to be 80,505, a 62.24 percent increase from 2010. The increase is connected to the annexation of Fire District #41, a portion of Fire District #36 (Woodinville), and a small area of Fire District #34 (Redmond).

As of the 2010 U.S. Census, there were 22,445 households and 12,014 families residing in Kirkland.<sup>10</sup> The population density was 4,762 people per square mile (1,628.8/km<sup>2</sup>). There were 24,345 housing units at an average density of 2,336 per square mile (789.2/km<sup>2</sup>).

<sup>9</sup> Community and Annexation Area map, City of Kirkland, Planning and Community Development.

<sup>10</sup> U.S. Census, 2010 Demographic Profile Data, City of Kirkland, WA.



## **City of Kirkland Organization Description**

### **Type of Government**

Kirkland is a charter city with a council-manager form of government. City Council is Kirkland's governing body and is comprised of seven non-partisan members elected by registered voters serving "at large" (not representing a district or ward). Council members are elected every two years, serving staggered four-year terms. The mayor and deputy mayor are elected among the members to serve two-year terms. Day-to-day oversight of the city is the responsibility of a City Manager hired by the city council.

### **Organizational Structure**

A well-designed organizational structure should reflect the lines of responsibility and authority within the agency, provide for the equitable distribution of the workload, and clearly define the official path of internal communication. The lines of an organizational chart visually clarify accountability, coordination, and supervision. Detailed job descriptions should provide the particulars of each job within the organization, helping to ensure that each individual's specific role is clear and focused on the overall organization mission.

Span of control, also known as span of management, is a human resources management term that refers to the number of subordinates a supervisor can effectively manage. Developed in the United Kingdom in 1922 by Sir Ian Hamilton, the concept of span of control evolved from the assumption that managers have finite amounts of time, energy, and attention to devote to their jobs. In his research of British military leaders, Hamilton found that leaders could not effectively control more than three to seven people directly.

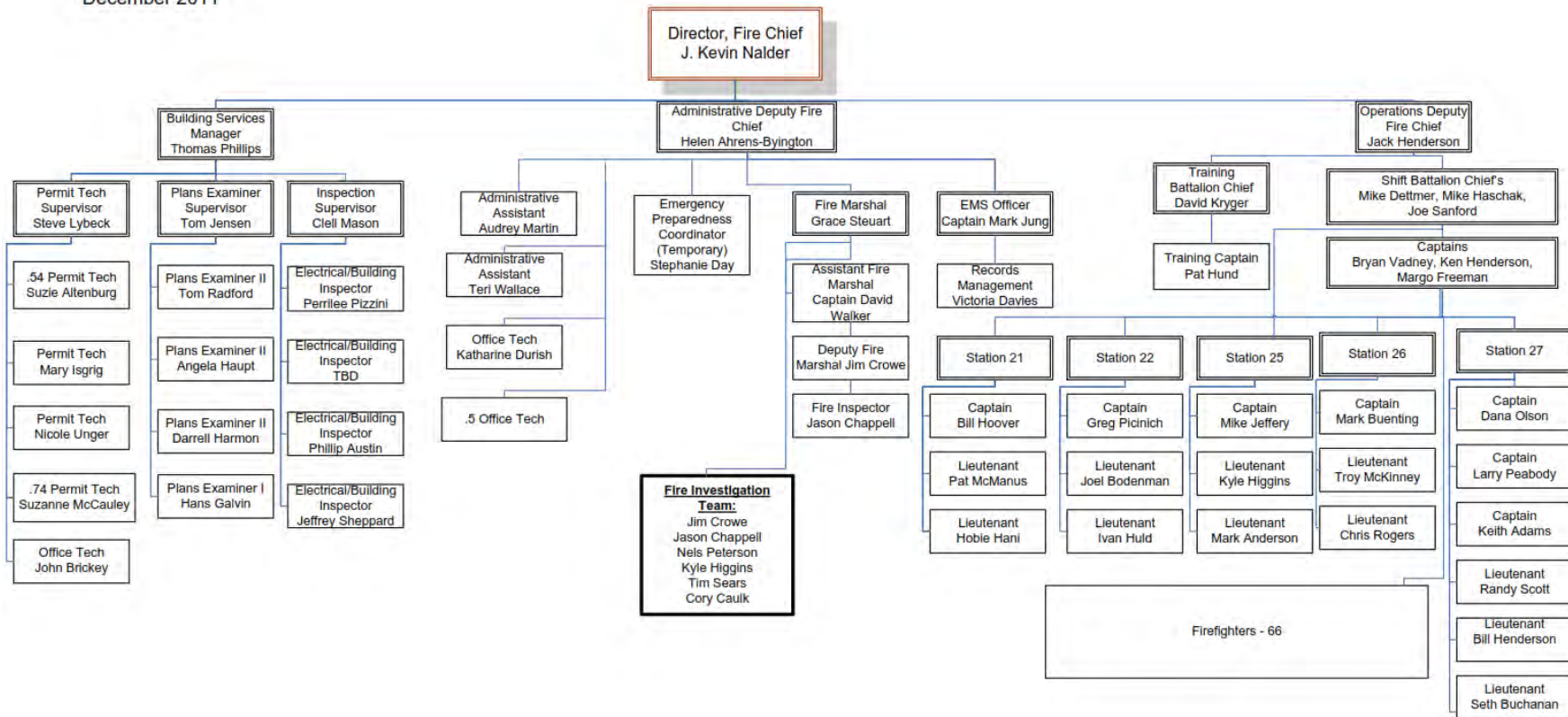
This generally accepted rule of thumb for span of control is still considered relevant today and applies not only to the military, but correspondingly to the fire service. It is important to note that all managers experience a decrease in effectiveness as their span of control exceeds the optimal level. In other words, the limitations implied by span of control are not shortcomings of individual managers but rather of managers in general. In addition, it is important to understand that span of control refers only to direct reports rather than to an entire corporate hierarchy (i.e., all personnel in the fire department).

*Extending span of control beyond the recommended limits engenders poor morale, hinders effective decision-making, and may cause loss of the agility and flexibility that give many entrepreneurial firms their edge.<sup>11</sup>*

KF&BD's organizational structure is atypical in that the director has oversight of building services, emergency management, and the fire department. The fire department stem of the organization is a typical top-down hierarchy found in most public emergency service providers. The following figure (Figure 4) shows the current Kirkland Fire & Building Department organizational structure.

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<sup>11</sup> Hendricks, Mark, *Span Control*, Entrepreneur, January 2001.

**Figure 4: Kirkland Fire & Building Department Organizational Chart****City of Kirkland**Fire & Building Department  
December 2011



## Operating Budget

The current housing crisis and the reduction in appraised taxable value has caused a general slowing of or reduction in property tax revenue in some government agencies and municipalities. However, in the City of Kirkland, property tax revenue has not decreased but has grown at 1 percent per year due to the optional levy increase plus new construction ranging from 0.25 percent to 4 percent in the past five years, with projections assuming 1 percent for future new construction. This growth is forecast to continue as the City, with a 2012 levy rate of 1.36766 and a bond levy rate of 0.08976, is considerably below the maximum allowed for Washington cities (\$3.10 for Kirkland, since the City is annexed into the King County Library District).

Other factors impacting many cities are lack of economic growth and a flattening or decrease of revenue from fees for service and sales tax that are often a significant basis of revenue for cities. The City of Kirkland is facing some of these same issues. As one cost element in the City's budget, the fire and building department is competing with other departments for a contracting revenue stream. In the City's 2011 – 2012 \$231.5 million general fund biennial budget, fire and building represents 16.6 percent or \$38.3 million of the total general fund budget. Note that the total budget figure includes \$14.1 million in general government reserve balances; excluding those reserves, the fire and building department represents 17.6 percent of the general fund budget. The operation of the fire and building department is somewhat unique in that fire operations are primarily funded by the City general fund; the building division is partially funded with fees that are collected for its services, with the balance of the revenue from general fund resources. If budgeted fees for service are inadequate to support the building division's budget, then the division's costs may be reduced to meet revenue expectations and workload requirements.

The initial information in the analysis will display the historical review of costs of the Kirkland Fire Department. The second segment is a projection of costs through 2017.

### Historical Financial Information Kirkland Fire and Building Department (KF&BD)

KF&BD is operating as a cost center or department of the City of Kirkland. Funding for the department is through fees charged for services, primarily EMS-related and charges to King County Fire District #41 (prior to June 2011), and regional EMS levy and grants, with the balance of revenue being resourced from the City's general purpose revenues. KF&BD must

compete for these resourced funds with all other city departments and revenue is not increasing at the pace previously experienced.

### KF&BD Revenue

The following figure provides a historical view of KF&BD actual revenue from 2008 through 2011 and budgeted revenue for 2012.

**Figure 5: KF&BD Revenue, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Property Tax District #34, #36, #41	0	0	0	2,313,161	0
WFLSD Asset Transfer	0	0	0	0	1,426,568
Firework Permits	120	100	150	179	100
Recreational Fire Permits	0	0	474	316	79
Grants – FEMA	0	0	0	408	0
Grants – EMPG	0	58,287	88,714	103,130	50,000
Intergovernmental – Fire Control Service	0	12,690	648	65,174	0
Intergovernmental – District #41	3,439,879	3,904,235	3,580,280	2,083,640	0
Intergovernmental – EMS	793,023	838,397	831,434	840,146	866,729
Emergency Transport Fee	0	0	0	556,877	845,210
MBP Service Fee	0	0	0	44,430	33,000
City General Fund Resource	10,357,564	10,923,225	11,200,596	11,283,300	14,635,959
<b>Total Revenue</b>	<b>14,590,586</b>	<b>15,736,934</b>	<b>15,702,297</b>	<b>17,290,760</b>	<b>17,857,645</b>
Percent City General Fund Resource Increase		5.46%	2.54%	0.74%	29.71%

The City's general fund resourcing of the fire department has increased every year since 2008. Average annual general fund contributions increased 9.61 percent over the four years. Annual fluctuations during the period 2010 to 2012 can largely be attributed to the annexation which became effective June 1, 2011. Revenue that was received as intergovernmental charges for service from Fire District #41 through the District's separate levy ended in 2011. Funding is now provided by the City's regular property tax levy, causing a shift to the contribution of General Fund resources. Likewise, one-time revenue received from Fire District #41 and Woodinville Fire and Rescue were received during this period, further skewing actual revenue figures.

In March of 2011, KF&BD began charging for BLS (basic life support) EMS transports of patients from medical incidents. Since KF&BD has only been providing BLS transport services for a year, there is not enough history to develop a financial trend. ESCI recommends that a

detailed analysis of BLS transport revenue versus expenditure be conducted to validate that EMS transportation activity is meeting established City goals.

The figure below provides a snapshot of EMS transportation revenue from March 2011 through January 2012:

**Figure 6: KF&BD EMS Transportation Revenue, March 2011 – January 2012**

Month 2011	Transport Tickets	Gross Charges	Payments	Collection Percent	Levy Funding	Disallowed	Uncollected	Pending
March	180	116,099	(63,866)	55%	(5,591)	(35,463)	(6,473)	4,705
April	168	107,535	(58,186)	54%	(8,691)	(31,421)	(3,248)	5,990
May	169	108,667	(64,169)	59%	(6,395)	(30,611)	(628)	6,864
June	204	130,875	(68,436)	52%	(8,720)	(38,448)	(159)	15,112
July	195	125,119	(69,006)	55%	(8,001)	(32,701)	(1,335)	14,075
August	189	120,586	(64,729)	54%	(5,831)	(32,350)	(1,299)	16,376
September	195	125,591	(62,912)	50%	(6,855)	(39,803)	(2,362)	13,660
October	203	129,909	(63,500)	49%	(9,696)	(35,028)	0	21,684
November	184	118,551	(56,551)	48%	(3,736)	(33,663)	(0)	24,600
December	179	115,181	(39,747)	35%	(793)	(23,818)	0	50,823
Month 2012	Transport Tickets	Gross Charges	Payments	Collection Percent	Levy Funding	Disallowed	Uncollected	Pending
January	217	139,140	(7,325)	5%	0	(1,713)	0	130,102
<b>Total</b>	<b>2,083</b>	<b>1,337,253</b>	<b>(618,428)</b>	<b>54%</b>	<b>(64,310)</b>	<b>(335,020)</b>	<b>(15,505)</b>	<b>303,991</b>

The collection rate was forecast at 52 percent and the actual percentage for the first six months of the program was 54.88 percent. ESCI finds that collections exceeding forecast are positive indication of the benefit of the program. The amount of uncollected billings is considered to be in the low range. The lower collection percent in the most recent months is attributed to the lag time between billing and payment. Disallowed is the difference between the gross charges and what is allowable under insurance, primarily Medicare.

**Kudos 1:** The City of Kirkland's decision to begin billing for BLS services is allowing KF&BD to capture available monies that were previously uncollected.

The original plan decision included a proviso of not billing when KF&BD transported patients in neighboring jurisdictions if that department was not charging for the service. Recent changes in the billing practices of Bellevue Fire Department make it an appropriate time to revisit the subject. ESCI recommends that KF&BD bill for EMS when responding and transporting patients outside of the City of Kirkland.

**KF&BD Expenditures**

The figure below provides a historical view of KF&BD expenditures from 2008 through the 2012 budget year.

**Figure 7: KF&BD Expenditures by Department, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Administration	881,929	1,065,297	1,056,591	1,233,046	1,314,428
Suppression	12,530,756	13,237,963	13,300,369	14,571,901	15,145,445
Training	470,273	577,057	498,593	631,666	547,632
Prevention	549,924	634,653	599,988	673,012	698,112
Emergency Preparedness	157,704	221,965	246,756	181,136	152,028
<b>Total Expenditures</b>	<b>14,590,586</b>	<b>15,736,934</b>	<b>15,702,297</b>	<b>17,290,760</b>	<b>17,857,645</b>

KF&BD total expenditures have increased by 22.39 percent since 2008. The annexation in 2011 resulted in the addition of an engine and cross staffed aid car to serve the area previously served by Woodinville. The cost of serving Fire District #41 was already included in the fire budget. After factoring out the annexation-related increase, the net increase was approximately 13.6 percent.

In Figure 8 KF&BD's expenditures are segregated by cost category from 2008 through 2012:

**Figure 8: KF&BD Expenditures by Cost Category, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Salaries and Wages	9,138,030	9,688,144	9,853,930	10,055,150	10,592,947
Benefits and Taxes	2,690,799	3,156,578	2,937,976	3,629,545	3,801,592
Supplies	200,468	205,644	150,686	639,643	269,915
Other Services and Charges	394,503	383,538	412,477	387,207	366,390
Inter-fund Operating Leases	1,811,715	1,860,919	1,882,894	2,116,624	2,224,137
Intergovernmental Fund	355,071	442,111	464,333	462,592	595,664
Capital	0	0	0	0	7,000
<b>Total Expenditures</b>	<b>14,590,586</b>	<b>15,736,934</b>	<b>15,702,297</b>	<b>17,290,760</b>	<b>17,857,645</b>

The next figure provides a percentage breakdown of KF&BD expenditures by cost categories from 2008 through 2012:

**Figure 9: KF&BD Expenditure Percentage by Cost Category, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Salaries and Wages	62.630%	61.563%	62.755%	58.153%	59.319%
Benefits and Taxes	18.442%	20.058%	18.710%	20.991%	21.288%
Supplies	1.374%	1.307%	0.960%	3.699%	1.511%
Other Services and Charges	2.704%	2.437%	2.627%	2.239%	2.052%
Inter-fund Operating Leases	12.417%	11.825%	11.991%	12.241%	12.455%
Intergovernmental Fund	2.434%	2.809%	2.957%	2.675%	3.336%
Capital	0.000%	0.000%	0.000%	0.000%	0.039%
<b>Total Expenditures</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>	<b>100.000%</b>
<b>Benefits &amp; Taxes as % of Wages</b>	<b>29.446%</b>	<b>32.582%</b>	<b>29.815%</b>	<b>36.096%</b>	<b>35.888%</b>

Approximately 81 percent of total costs are related to employee salaries, wages, benefits, and taxes. Inter-fund or governmental transfers account for 15.79 percent of total costs. Intergovernmental charges and allocations are actual expenditures of the City, although they are not directly controlled by the department. In tough financial times, inter-departmental charges should be examined independently from the fire department budget prior to discussing potential cost cutting strategies.

The next figure provides a percentage breakdown of the benefit and taxes line item from Figure 9 above.

**Figure 10: KF&BD Percentage of Benefits and Taxes, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Medical, Dental, and Vision	15.039%	15.938%	15.306%	19.708%	20.532%
Pension	5.931%	5.906%	5.663%	5.701%	5.480%
Industrial Insurance	1.405%	1.498%	1.663%	2.553%	2.321%
MEBT	5.429%	5.478%	5.494%	5.517%	5.268%
Taxes and Other	1.642%	3.762%	1.690%	2.618%	2.134%
<b>Benefits &amp; Taxes as % of Wages</b>	<b>29.446%</b>	<b>32.582%</b>	<b>29.815%</b>	<b>36.096%</b>	<b>35.888%</b>

The fastest growing benefit cost, as a percentage of wages, is medical, dental, and vision increasing from 15.04 percent in 2008 to 20.53 percent in 2012's budget.

**KF&BD Summary of Operational Finances**

Figure 11 provides a historical summary of KF&BD operational revenue and expenditures from 2008 through 2012.

**Figure 11: KF&BD Summary of Operational Finances, 2008 – 2012**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
<b>Revenue</b>					
Revenue w/o General Fund Resources	4,233,022	4,813,709	4,501,701	6,007,461	3,221,686
City General Fund Resource	10,357,564	10,923,225	11,200,596	11,283,300	14,635,959
<b>Total Revenue</b>	<b>14,590,586</b>	<b>15,736,934</b>	<b>15,702,297</b>	<b>17,290,760</b>	<b>17,857,645</b>
<b>Expenditures</b>					
Salaries & Wages	9,138,030	9,688,144	9,853,930	10,055,150	10,592,947
Benefits & Taxes	2,690,799	3,156,578	2,937,976	3,629,545	3,801,592
Supplies	200,468	205,644	150,686	639,643	269,915
Other Services & Charges	394,503	383,538	412,477	387,207	366,390
Inter-fund Operating Leases	1,811,715	1,860,919	1,882,894	2,116,624	2,224,137
Intergovernmental Fund Capital	355,071	442,111	464,333	462,592	595,664
	0	0	0	0	7,000
<b>Total Expenditures</b>	<b>14,590,586</b>	<b>15,736,934</b>	<b>15,702,297</b>	<b>17,290,760</b>	<b>17,857,645</b>

**KF&BD Debt**

KF&BD debt is paid through the City of Kirkland General Government Debt Service Fund. As of December 31, 2011, three debt obligations impact the fire department.<sup>12</sup> Figure 12 summarizes these transactions:

**Figure 12: KF&BD Debt Summary**

Description	Funding Source	Origination Date	Maturity Date	Origination Principal Amount	Principal Loan Balance of 12/31/11
North Rose Hill Fire Station	1992 UGOB	Refunded 7/6/2001	12/2/2012	1,730,000	185,000
Forbes Creek Fire Station	1995 UGOB	8/1/1995	12/1/2014	1,020,000	240,000
KCFPD #41 Bond	LGOB	5/26/2011	12/1/2021	4,000,000	4,000,000
<b>Total Debt</b>				<b>6,750,000</b>	<b>4,425,000</b>

The next table (Figure 13) displays the amortization schedule for these debt issues:

<sup>12</sup> KCFPD #41 debt obligation remains with District property owners.

**Figure 13: KF&BD Debt Amortization Schedule**

Loan Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Forbes Creek Fire Station Principal and Interest</b>										
Principal	75,000	80,000	85,000	0	0	0	0	0	0	0
Interest	88,643	89,405	89,845	0	0	0	0	0	0	0
<b>Total Cost</b>	<b>163,643</b>	<b>169,405</b>	<b>174,845</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>KCFPD #41 Principal and Interest</b>										
Principal	345,313	356,451	367,949	379,817	392,069	404,715	417,770	431,245	445,156	459,515
Interest	125,259	64,021	102,623	90,755	78,503	65,857	52,802	39,327	25,416	11,058
<b>Total Cost</b>	<b>470,572</b>	<b>420,472</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>
<b>North Rose Hill Fire Station</b>										
Principal	185,000	0	0	0	0	0	0	0	0	0
Interest	193,603	0	0	0	0	0	0	0	0	0
<b>Total Cost</b>	<b>378,603</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Combined Principal and Interest Cost</b>										
Principal	605,313	436,451	452,949	379,817	392,069	404,715	417,770	431,245	445,156	459,515
Interest	407,505	153,426	192,468	90,755	78,503	65,857	52,802	39,327	25,416	11,058
<b>Total Cost</b>	<b>1,012,818</b>	<b>589,877</b>	<b>645,417</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>	<b>470,572</b>

Debt on the North Rose Hill Fire Station will be retired in the current budget year and on the Forbes Creek Fire Station in fiscal year 2014.

### Unfunded Liabilities

Three primary unfunded liabilities are normally applicable to the fire service: 1) open litigations or workers' compensation claims 2) accrued time as allowed by contract for vacation, sick leave, Kelly days, etc., and 3) unfunded actuarial accrued liabilities for pension and medical benefits.

- 1) Open litigation or workers' compensation claims: Information provided by Kirkland indicated that a summary of any open tort claims against KF&BD's liability policy, worker compensation policy, or other pending legal action is zero (0).
- 2) Accrued time as allowed by contract for vacation, sick leave, Kelly days, etc.: The City of Kirkland pays for the fire department employees' accrued vacation pay (and a portion of sick leave under certain conditions) upon separation from current employment. The liability is recorded in the City's annual financial statements.
- 3) Unfunded actuarial accrued liabilities for pension and medical benefits: On page 104 of the City of Kirkland 2010 Comprehensive Annual Financial Reporting (CAFR) document, the position for firefighter's pension and LEOFF1 retiree and medical/long-term care are reported. Figure 14 lists the actuarial liability of the firefighter pension from January 1, 2001, to January 1, 2010 (date of the most recent report).



**Figure 14: KF&BD Firefighter Pension**

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Liabilities	Funding Ratio
January 1, 2001	901,000	385,000	(516,000)	234%
January 1, 2004	1,015,000	547,000	(468,000)	186%
January 1, 2006	1,090,000	533,000	(557,000)	205%
January 1, 2008	1,305,000	469,000	(836,000)	278%
January 1, 2010	1,527,000	420,000	(1,107,000)	364%

The KF&BD firefighter pension fund funding ratio was 364 percent (overfunded) of actuarial liabilities as of January 1, 2010.

Figure 15 shows the actuarial liability of the unfunded LEOFF I medical/long-term care from January 1, 2006, to January 1, 2010 (date of the most recent report).

**Figure 15: KF&BD Unfunded LEOFF I Medical/Long-Term Care**

Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Liabilities	Funding Ratio
January 1, 2006	0	11,360,000	11,360,000	0%
January 1, 2008	0	12,505,000	12,505,000	0%
December 31, 2009	0	10,724,000	10,724,000	0%
December 31, 2010	0	10,070,000	10,070,000	0%

The City has made a decision to make the LEOFF1 medical payments an operational expense with estimated cost of premiums and direct medical payments budgeted as an ongoing expense in a non-department budget. The City's actuaries have pointed out that any unused pension reserve (which is overfunded) can be made available for use toward the OPEB (Other Post Employment Benefits) liability. In addition, the City has set aside \$619,000 in a reserve toward this purpose (which does not show in the liability table because it is not a trust account). The LEOFF I liability has and will continue to decrease over the ensuing years.

### Capital and Vehicle Replacement Plans

Kirkland uses a six-year CIP (capital improvement plan) to forecast the acquisition of major assets for the fire department. The plan is formally adopted by the City Council with the annual budget. Capital apparatus and equipment for KF&BD from the 2011 to 2016 CIP is shown in Figure 16 and Figure 17.



**Figure 16: KF&BD CIP Vehicle Replacement, 2012 – 2016**

Vehicle ID	Year	Description	Useful Life	2012	2013	2014	2015	2016
F609	1995	Seagraves Pumper	18	0	598,193	0	0	0
F213	2006	Chevy Suburban	8	0	0	74,192	0	0
F314	2006	Ford Aid Vehicle	8	0	0	210,682	0	0
F315	2006	Ford Aid Vehicle	8	0	0	210,682	0	0
F316	2007	Ford Aid Vehicle	8	0	0	0	218,000	0
F506	1997	Simon LTI Aerial	18	0	0	0	1,163,314	0
F216	2008	Chevy Suburban	8	0	0	0	0	84,439
F317	2008	Ford Aid Vehicle	8	0	0	0	0	225,630
<b>Total</b>				<b>0</b>	<b>598,193</b>	<b>495,556</b>	<b>1,381,314</b>	<b>310,069</b>

**Figure 17: KF&BD CIP Equipment Replacement, 2012 – 2016**

Project Number	Project Title	2012	2013	2014	2015	2016
PS 0066	Thermal Imaging Camera Replacement	133,000	0	0	0	0
PS 0067	Dive Rescue Equipment Replacement	0	58,900	0	0	0
PS 0071	SCBA Equipment Replacement	0	0	305,500	316,100	0
<b>Total</b>		<b>133,000</b>	<b>58,900</b>	<b>305,500</b>	<b>316,100</b>	<b>0</b>

### Economic Indicators

Economic indicators specific to Washington, King County, and the local area will provide the historical basis for projecting future costs that affect the operation of the fire department. Information in this section is provided to substantiate the forecast and projected increases in TAV, revenue, and expenditures. To perform these projections, ESCI reviewed historical home retail sales information, unemployment statistics, and the ten-year CPI-W history.

### Historic Residential Property Sales

State of Washington assessors use recent residential home sales to establish increases or decreases in new appraised values. Figure 18 is the number of home sales and the median value by quarter from 2006 through 2011 for the City of Kirkland.<sup>13</sup>

<sup>13</sup> <http://www.city-data.com/city/Kirkland-Washington.html>.

**Figure 18: Kirkland, Washington, Median Value and Home Sales, 2006 – 2011**

Figure 18 shows that the number of retail home sales declined significantly in 2007 and has not yet returned to the levels of 2006. The median sales price of existing homes has dropped from the 2007 high level of approximately \$550,000 to approximately \$355,000 in the fourth quarter of 2011. Note that a portion of this drop reflects the inclusion of the annexation area in the 2011 figure.

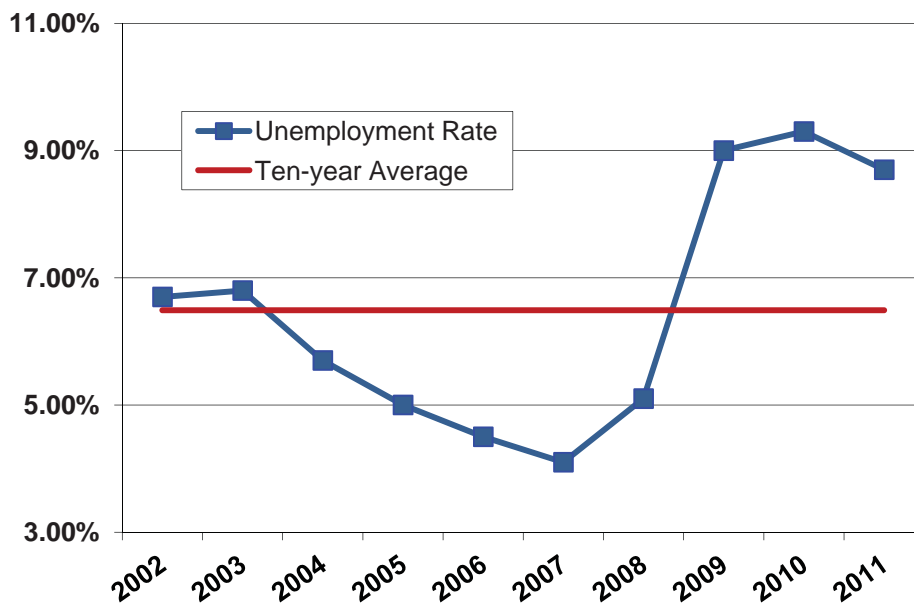
#### Historic Unemployment Rate

The level of employment in the region can potentially impact the number of homes being sold and the ultimate sales price. In Figure 19, the ten-year and average historic unemployment rates are shown for the Seattle-Tacoma-Bellevue area:

**Figure 19: Unemployment Percentage, 2002 – 2011<sup>14</sup>**

Year	Unemployment Rate	Ten-year Average
2002	6.70%	6.49%
2003	6.80%	6.49%
2004	5.70%	6.49%
2005	5.00%	6.49%
2006	4.50%	6.49%
2007	4.10%	6.49%
2008	5.10%	6.49%
2009	9.00%	6.49%
2010	9.30%	6.49%
2011	8.70%	6.49%

Historical unemployment percentages are graphically displayed in the following figure.<sup>15</sup>

**Figure 20: Unemployment, 2002 – 2011**

### Annual Inflation Rate

Inflation is also an important consideration when forecasting cost. For the purpose of this analysis, ESCI will use the Consumer Price Index for all urban consumers (CPI-W), reported from June 2002 through June 2011 period for the Seattle-Tacoma-Bremerton Statistical Area as

<sup>14</sup> CPI-W historical information was provided by client.

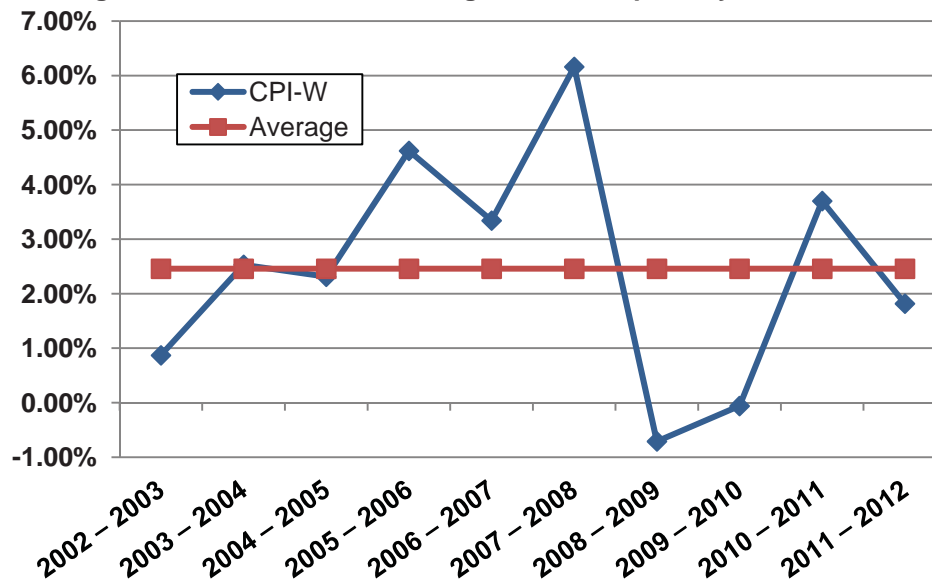
<sup>15</sup> An increasing unemployment rate from 2007 through 2011 provides a strong indicator that the housing market will not improve significantly over the next few years.

compiled by the U.S. Department of Labor, with the June 2011 to April 2012 average used for an approximation for 2012.<sup>16</sup> This measure is identified in the City's labor contracts. The information is displayed in both table and graphical format (below).

**Figure 21: Historical and June to June CPI-W Table, 2002 – 2012<sup>17</sup>**

Year	CPI-W	AVG
2002 – 2003	0.87%	2.458%
2003 – 2004	2.53%	2.458%
2004 – 2005	2.31%	2.458%
2005 – 2006	4.62%	2.458%
2006 – 2007	3.34%	2.458%
2007 – 2008	6.16%	2.458%
2008 – 2009	-0.71%	2.458%
2009 – 2010	-0.06%	2.458%
2010 – 2011	3.70%	2.458%
2011 – 2012	1.82%	2.458%

**Figure 22: Historical and Average CPI-W Graphically, 2002 – 2012**



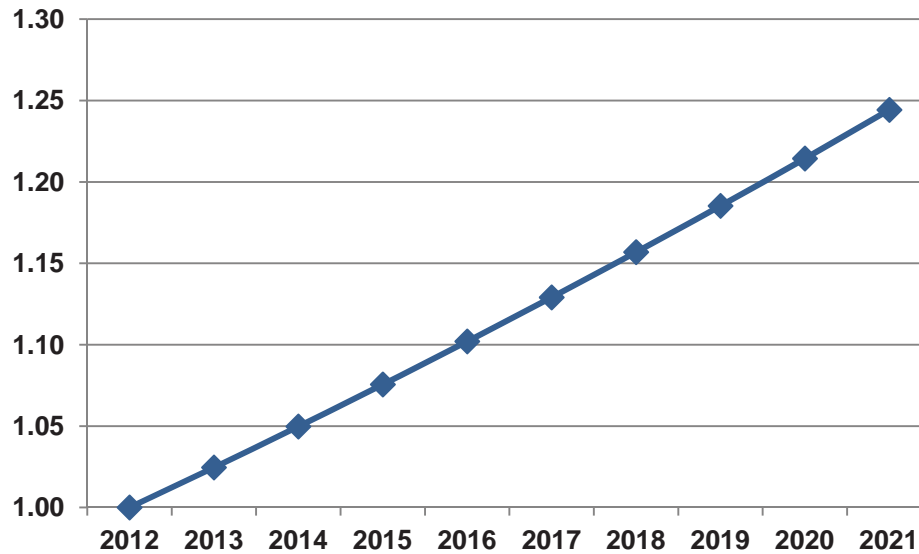
A historical review of the ten-year Consumer Price Index – Urban (CPI-W) shows that the prices were increasing an average 2.458 percent per year. This rate is used for analytical purposes in this financial review. The use of this value is an estimate to project potential cost trends in future years; however, the actual CPI-W for a given year could be higher or lower.

<sup>16</sup> U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index—All Urban Consumers, Series Id: CWURA423SA0 Not Seasonally Adjusted, Seattle-Tacoma-Bremerton.

<sup>17</sup> The full year CPI-W has been released for 2011 – 2012 since the completion of this study.

Historical data was used to develop an inflation index for the years 2012 through 2021 as shown below. The CPI-W average increase will be applied to other revenue and expense categories of the 2012 budget to develop the forecast impact on the organization's future financial stability.

**Figure 23: CPI-W Forecast Budget Impact, 2012 – 2021**



Expenditures in 2021 are projected to be approximately \$1.244 for each of today's dollars.

#### Forecast Taxable Assessed Value

*Taxable Assessed Value* (Re-assessment of existing property): The county assessor's office reviews and assigns revised property tax values annually with a legally mandated requirement for a site visit every six years. A projection for 2013 by the King County Assessor forecasts that 2013 residential values in the County will decline by approximately 1.25 percent. The King County Assessor projects that TAV will be flat in 2014 and then experience a slight growth of around 1 percent per year. The inflation assumptions used for TAV are shown in Figure 24 and the forecast TAV is provided in Figure 25:

**Figure 24: TAV Growth Rates, 2013 – 2017**

Year	TAV Change Percent
2013	-1.25%
2014	0.00%
2015	1.00%
2016	1.00%
2017	1.00%

**Figure 25: Forecast TAV, 2012 – 2017**

Description	2012 Budget	2013	2014
City of Kirkland	14,672,056,829	14,488,656,119	14,488,656,119
Description	2015	2016	2017
City of Kirkland	14,633,542,680	14,779,878,107	14,927,676,888

**Revenue Forecast**

In the 2012 budget, KF&BD generated approximately 18 percent of its revenue from non-city general fund resources. When projecting revenues categories ESCI used the ten-year average CPI-W of 2.458 percent for all non-city general fund resource line items.

**Figure 26: KF&BD Revenue Forecast, 2012 – 2017**

Description	2012 Budget	2013	2014	2015	2016	2017
Property Tax District #34, #36, #41	0	0	0	0	0	0
WFLSD Asset Transfer	1,426,568	0	0	0	0	0
Firework Permits	100	102	105	108	110	113
Recreational Fire Permits	79	81	83	85	87	89
Grants – FEMA	0	1,000	1,025	1,050	1,076	1,102
Grants – EMPG	50,000	51,229	52,488	53,778	55,100	56,455
Intergovernmental – Fire Control Serv.	0	0	0	0	0	0
Intergovernmental – District #41	0	0	0	0	0	0
Intergovernmental – EMS	866,729	888,033	909,861	932,225	955,140	978,617
Emergency Transport Fee	845,210	865,985	887,271	909,080	931,425	954,320
MBP Service Fee	33,000	33,811	34,642	35,494	36,366	37,260
City General Fund Resource	14,635,959	16,655,767	17,274,398	17,918,587	18,589,536	19,288,508
<b>Total Revenue</b>	<b>17,857,645</b>	<b>18,496,009</b>	<b>19,159,873</b>	<b>19,850,407</b>	<b>20,568,840</b>	<b>21,316,464</b>
Percent City General Fund Resource Increase	29.71%	13.80%	3.71%	3.73%	3.74%	3.76%

The financial impact of annexation is seen in the 29.71 percent increase in City general fund resources as funding shifted from District #41 contract payments to property taxes. The 13 percent increase in 2013 reflects the one-time asset transfer from Woodinville in 2012 that does not recur in the following years.

Expenditures Forecast

Forecast expenditures for KF&BD (2013 to 2017) rely upon the following assumptions and calculations:

- All wage and benefit expense categories were inflated at 2.458 percent, medical costs were increased by 7.00 percent per year.
- Inter-fund vehicle replacement expenses have remained at the 2012 budget level of \$491,943 increased by the ten-year average CPI-W of 2.458 percent.
- All other expense categories were increased at the ten-year average CPI-W of 2.458 percent.

**Figure 27: KF&BD Expenditure Forecast, 2012 – 2017**

Description	2012 Budget	2013	2014	2015	2016	2017
Salaries and Wages	10,592,947	10,959,251	11,338,222	11,730,298	12,135,931	12,555,592
Benefits and Taxes	3,801,592	3,995,455	4,200,385	4,417,076	4,646,261	4,888,721
Supplies	269,915	276,010	282,242	288,615	295,132	301,796
Other Services and Charges	366,390	374,663	383,123	391,774	400,620	409,666
Inter-fund Operating						
Leases	2,224,137	2,274,358	2,325,713	2,378,228	2,431,928	2,486,841
Intergovernmental						
Fund	595,664	609,114	622,868	636,932	651,314	666,021
Capital	7,000	7,158	7,320	7,485	7,654	7,827
<b>Total Expenditures</b>	<b>17,857,645</b>	<b>18,496,009</b>	<b>19,159,873</b>	<b>19,850,407</b>	<b>20,568,840</b>	<b>21,316,464</b>

Summary Expense Fund Balance

The following figure depicts the projected summary for each fund to provide a snapshot of the fund balance in the years 2012 through 2017.

**Figure 28: KF&BD Forecast Summary, 2012 – 2017**

Description	2012 Budget	2013	2014	2015	2016	2017
<b>Revenue</b>						
Revenue w/o General Fund Resources	3,221,686	1,840,242	1,885,475	1,931,820	1,979,304	2,027,956
City General Fund Resource	14,635,959	16,655,767	17,274,398	17,918,587	18,589,536	19,288,508
<b>Total Revenue</b>	<b>17,857,645</b>	<b>18,496,009</b>	<b>19,159,873</b>	<b>19,850,407</b>	<b>20,568,840</b>	<b>21,316,464</b>
<b>Expenditures</b>						
Salaries and Wages	10,592,947	10,959,251	11,338,222	11,730,298	12,135,931	12,555,592
Benefits and Taxes	3,801,592	3,995,455	4,200,385	4,417,076	4,646,261	4,888,721
Supplies	269,915	276,010	282,242	288,615	295,132	301,796
Other Services and Charges	366,390	374,663	383,123	391,774	400,620	409,666
Inter-fund Operating Leases	2,224,137	2,274,358	2,325,713	2,378,228	2,431,928	2,486,841
Intergovernmental Fund	595,664	609,114	622,868	636,932	651,314	666,021
Capital	7,000	7,158	7,320	7,485	7,654	7,827
<b>Total Expenditures</b>	<b>17,857,645</b>	<b>18,496,009</b>	<b>19,159,873</b>	<b>19,850,407</b>	<b>20,568,840</b>	<b>21,316,464</b>

Changes in the assumptions used for TAV, CPI-W, and wages and benefits could alter the overall projection of these values. While the assumptions and results above do not include any costs for the replacement of department vehicles, capital replacement is fully funded. Capital expenditures are funded by the fire department as transfers to reserves.

#### Cost Avoidance Planning

KF&BD maintains adequate internal controls over expenditures with all costs being applied for providing fire service to the residents of the service area. In looking at the detailed line item expenditures, the majority of the costs are from salaries and benefits. The major cost increases in these categories result from annual wage and medical benefit cost increases.

Future expenses should, to the extent possible, be indexed to projected revenues, other than service level enhancements. Expense growth in excess of revenue growth exacerbates the fiscal decline and is not sustainable. Another avenue to control and potentially reduce costs would be through a process of collaboration with neighboring agencies.



## **Fire and Building Department**

### **Overview of Fire and Building Department Services Provided**

Under the direction of the Director of the Fire and Building, Kirkland Fire & Building Department (KF&BD) provides a variety of non-emergency and emergency response services. Non-emergency services include:

- Plan review and permit issuance for construction
- Pre-submittal conferences
- Permitting – permit application routing and processing
- Construction inspections
- Issuance of operational permits for regulated activities
- Annual fire safety and life safety inspections in existing buildings
- Fire origin and cause determination
- Emergency management – community preparedness activities
- Code violation investigations
- Code and policy development and interpretation

Emergency response services include:

- Fire suppression
- Emergency Medical Services (EMS) response and Basic Life Support (BLS) transport
- Hazardous materials emergency response
- Entrapment and other technical rescue
- Emergency management
- Other specialized rescue services

The delivery of fire suppression and rescue services is no more effective than the sum of its parts. It requires efficient notification of an emergency, rapid response from well-located facilities, appropriate apparatus, with sufficient staffing, following a well-practiced plan of action. The most visible and valued of the services provided by the KF&BD is the response to and control of emergency events.

To operate in the emergency response environment effectively, fire departments must capitalize on managing various aspects of a large business enterprise. A lion's share of this effort goes

into supporting the primary mission, including those components shown in the list above. However, there are additional requirements that have to be met and a substantial infrastructure that must exist in order for the organization to function at its best.

### **Staffing by Function**

Kirkland Fire & Building Department is a service provider to a diverse urban community within a larger urban metropolitan area. This poses a challenge in that community growth and demand for services often outpaces organizational growth and available resources. The burden placed on management can be daunting. In addition to either matching or managing community expectations, the management of the business of a fire department always presents unique issues involving the administration of financial and personnel resources, the setting of goals and objectives, internal and external communications, information management, and security. This section of the report examines KF&BD's current management efforts and preparation for the future of the organization.

#### Department Staffing

One of the primary responsibilities of the KF&BD's administrative and support staff is to ensure that the operational elements of the organization have the ability and means to accomplish the emergency mission. Effective administration and support are vital to the success of the department. Without enough oversight, planning, documentation, training, and maintenance, the department will struggle to meet its operational commitments. On the other hand, if too many of the organization's resources are committed to administration and support, the operational element will likely suffer.

#### Administrative and Support

Comparing the ratio of administrative and support jobs to the total number of positions in the department helps to establish an understanding of the proper balance between internal and external services. Maintaining an appropriate proportion between the two is important to the success of the department's mission and responsibilities. Kirkland Fire & Building Department is comprised of six organizational functions:<sup>18</sup> one provides direct emergency service to the community (emergency services), and the other five augment or otherwise support that effort-- administrative services, fire prevention, emergency management, training, and building services. There are three direct reports to the fire and building department director/fire chief

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<sup>18</sup> Department Overview, City of Kirkland Fire & Building Department, City of Kirkland 2011 – 2012 Budget Document (final), page 222.

(Figure 4 on page 21): the building services manager, the administrative deputy fire chief, and the operations deputy fire chief.

Statistical information provided in the next section relating to FTEs by division and program is used when comparing KF&BD to other regional fire agencies (Appendix F: Comparable Providers).

The following table summarizes the personnel resources and full-time equivalents (FTEs) assigned to administration, management, and support functions of the KF&BD.

**Figure 29: Administrative and Support Staffing Summary**

<b>Career – Position Title</b>	<b>Number (FTE)</b>
Director of Fire and Building, Fire Chief	1.00
Deputy Fire Chief, Administration <sup>19</sup>	1.00
Deputy Fire Chief, Operations	1.00
Battalion Chief, Training	1.00
Captain, Training	1.00
Fire Marshal	1.00
Assistant Fire Marshal	1.00
Fire Inspector	2.00
Captain, EMS Billing	1.00
Administrative Assistant	2.00
Office Technician	1.50
<b>Sub-Total</b>	<b>13.50</b>
<b>Sub-Total, Percentage of Administrative and Support Staff to Total Personnel</b>	<b>13.04%</b>
<b>Emergency Management – Position Title</b>	<b>Number (FTE)</b>
Emergency Preparedness Coordinator (Temporary)	1.00
AmeriCorps, VISTA (Volunteer)	1.00
Records Management Specialist – Transport Fee (Temporary Position Ends 12/30/2012)	0.50
<b>Total Administrative and Support FTEs</b>	<b>16.00</b>
<b>Percentage of Administrative and Support Staff to Total Personnel</b>	<b>15.46%</b>

Three of the positions (2.5 FTEs) are of limited duration: emergency preparedness coordinator, AmeriCorps VISTA (Volunteers in Service to America), and a records management specialist (transport fee). Administration and support staff of KF&BD is comprised of 13.5 FTEs; operational jobs include 90 authorized FTEs. Consequently, the administrative and support function presently includes about 13.0 percent of available human resources. Based on our experience with similar organizations (i.e., medium-sized municipal fire departments using full-

<sup>19</sup> Deputy Chief of Administration is effectively spending 0.50 FTE with responsibilities associated with managing the City of Kirkland Emergency Management program.

time employees to provide all normal services plus fire prevention, fire training, and emergency medical transport), the expected ratio of administrative and support staff to operational staff usually falls somewhere between 15 and 20 percent.<sup>20</sup> While there is no definitive standard for the ratio between administration and operational roles, this suggests that KF&BD has fewer administrative and support personnel than comparable fire departments.

KF&BD is providing BLS (basic life support), EMS transport, fire and life safety plan review and inspections, hazardous materials response, fire training, emergency management, and a limited public education program with a relatively few number of administrative and support positions. In our experience, we find that fire departments often will provide one or two additional or advanced services. KF&BD is among a select few that offer virtually all aspects of emergency services with a minimum of non-emergency staff.

**Kudos 2:** *Kirkland Fire and Building Department provides or provides for virtually all emergency services that are available and offered by municipal fire departments.*

#### Staffing by Division and Program

KF&BD uses an internal budgetary framework to define the division of tasks, resource deployment, and coordination of activities. Divisions have authority, responsibility, and accountability for programs. Figure 30 summarizes the distribution of the 13.5 career FTEs in administration and support by division and program.

**Figure 30: Administration and Support FTEs by Division and Program**

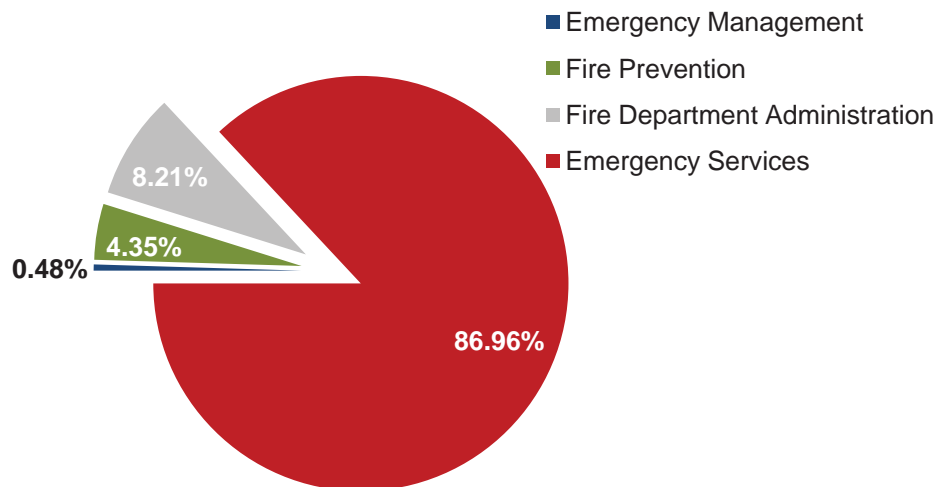
Division or Program	FTEs
Fire Department	7.0
Fire Prevention	4.5
Training	2.0
EMS	0.0

In the City budget, under the umbrella of the fire and building department, each of the divisions and programs provides a detail of functions (responsibilities), accomplishments, objectives, and budget highlights. A division/program summary lists a review, projection, and changes in

<sup>20</sup> Based on ESCI's experience with 800 plus clients.

staffing and budget.<sup>21</sup> The percentage of the FTEs devoted to each budgetary division and program (taken from the City's adopted budget) is summarized by the following pie chart.

**Figure 31: KF&BD Staffing by Division and Program**



As is expected, the majority of the department's FTEs (approximately 87 percent) are dedicated to the delivery of fire suppression and emergency medical services. Noticeably absent from the staffing figure is a lack of personnel dedicated to management of emergency medical services. As a general rule, fire departments serving a community of similar size and character that provide EMS and transport services have a full-time staff person dedicated to managing the medical services program.

City budget documents for the fire department do not include administrative functions as a division. Administrative services include those functions necessary to support the operation of the other divisions in a department and assure quality control. The budget document for the City of Kirkland separates administrative services for some departments such as planning and community development and the police department. To better quantify the administrative services function for the Kirkland Fire & Building Department, we recommend that an administrative division budget for the department have two categories: 1) fire and 2) building.

<sup>21</sup> Source: *Fiscal year 2011 – 2012 Final Budget*, City of Kirkland, page 222.

The next table lists the staffing for the fire and building department according to the City of Kirkland fiscal year 2011 – 2012 budget by division/program and the change from fiscal year 2007 – 2008.<sup>22</sup>

**Figure 32: Position Summary FTEs, Fiscal Year 2007 – 2008 and 2011 – 2012**

Divisions and Programs	2008 FTEs	2012 FTEs	Change
Administration	6.00 <sup>23</sup>	6.00	0.00
Emergency Services	79.00	93.00	14.00
Fire Prevention	4.00	3.50	(0.50)
Building Services	20.53	18.28	(2.25)
Emergency Management	0.00	0.00	0.00
<b>Total</b>	<b>109.53</b>	<b>120.78</b>	<b>11.25</b>

KF&BD saw a net increase of 11.25 FTEs between fiscal year 2007 – 2008 and fiscal year 2011 – 2012 according to the City budget. With 14.00 additional FTEs budgeted, emergency services had the largest increase; administration static, while two other programs lost FTEs (fire prevention and building services). Nine of the emergency services FTEs are a result of the City's 2011 annexation of a portion of the Woodinville service area. Fire department administration has seen an actual decrease in personnel with the loss of one FTE administrative support position that was funded by King County Fire District #41. This administrative support position was eliminated at the time of annexation.

KF&BD has no internal capacity for the analysis of data and implementing of outcomes. The problem is seen as two-fold. First, is the limited availability and integration of electronic data. Second is the lack of an analyst or administrative staffer with the knowledge and skill set to perform analysis. ESCI recommends that one FTE administrative assistant for EMS and one FTE analyst be added to the administrative support function of the KF&BD.

### Emergency Operations

It takes an adequate and well-trained staff of emergency service responders to put the apparatus and equipment to its best use in mitigating an emergency incident. Too few workers at an emergency scene lessen the effectiveness of the response and increase the risk of injury to those at the scene.

<sup>22</sup> Ibid.

<sup>23</sup> 0.8 FTE was provided by King County Fire District #41. This administrative support position was eliminated at the time of annexation.

Direct customer services in emergency operations are provided by 90 career personnel. The following figure lists the number of emergency operations personnel by position and rank.

**Figure 33: Emergency Operations Staffing**

Position	FTEs
Battalion Chief	3
Captain	10
Lieutenant	11
Firefighter & Firefighter/EMT	66
<b>Total Authorized</b>	<b>90</b>

The 2011 – 2012 budget of the City called for “elimination of the remaining 0.45 FTE Community Education and Information Specialist position; institute “rolling brown outs” when staffing falls below minimum levels. Note that if the EMS Transport Fees are approved, the funds could be used to restore this reduction.” Subsequent to budget adoption, approval was received to implement the EMS transport fee in order to maintain a minimum emergency daily staffing level of 19 personnel (18 plus 1 for annexation).

#### Staffing by Risk

Time matters a great deal in the achievement of an effective outcome to an emergency event. Time, however, isn't the only factor. Delivering sufficient numbers of properly trained, appropriately equipped personnel within the critical time period completes the performance metric. For medical emergencies this can vary based on the nature of the emergency. Many medical emergencies are not time critical. However, for serious trauma, cardiac arrest, or conditions that may lead to cardiac arrest, response time is very critical.

Equally critical is delivering enough personnel adequately equipped to the scene to perform all of the concurrent tasks required to deliver quality emergency care. For a cardiac arrest this can be up to six medical personnel; two to perform CPR, one or two to set up and operate advanced medical equipment, one to record the actions taken by emergency care workers, and one to direct patient care. Thus, for a medical emergency the real test of performance is the time it takes to provide the personnel and equipment needed to deal effectively with the patient's condition, not necessarily the time it takes for the first person to arrive.

Fire emergencies are even more resource critical. Again, the true test of performance is the time it takes to deliver sufficient personnel to initiate application of water on the fire. This is the only practical method to reverse the continuing internal temperature increases and ultimately

prevent flashover. The arrival of one person with a portable radio does not provide fire intervention capability and should not be counted as “arrival” by the fire department. Effective operations at the scene of fire emergencies also depend on the arrival of enough trained personnel to perform all of the duties and tasks required to control a fire event. Tasks that must be performed can be broken down into two key components; life safety, and fire flow.

Life safety tasks are based on the number of building occupants, their location, status, and ability to take self-preservation action. Life safety tasks involve the search, rescue, and evacuation of victims. The fire flow component involves delivering sufficient quantities of water to extinguish the fire, and creating an environment within the building that allows entry by firefighters.

The number and types of tasks needing simultaneous action will dictate the minimum number of firefighters required to combat different types of fires. In the absence of adequate personnel to perform concurrent action, the command officer must prioritize the tasks, completing some in chronological order rather than at the same time, reducing overall emergency scene effectiveness. These tasks include: command, scene safety, search and rescue, fire attack, water supply, pump operation, ventilation, back-up line, and staffing a rapid intervention team (RIT). The following table is an illustration of fire ground staffing based on level of risk. The following definitions apply to the table (below):

- Low Risk – Fires involving small sheds and other outbuildings, larger vehicles and similar—characterized by sustained attack fire flows typically less than 250 gallons per minute.
- Moderate Risk – Fires involving single-family dwellings and equivalently sized commercial office properties—sustained attack fire flows range between 250 gallons per minute to 1,000 gallons per minute.
- High Risk – Fires involving larger commercial properties with sustained attack fire flows between 1,000 gallons per minute and 2,500 gallons per minute
- Maximum Risk – Fires in buildings with unusual hazards such as high-rise buildings, hazardous materials facilities, very large buildings, and high life risk properties (nursing homes, hospitals, etc.). Though they may not require large sustained attack fire flows they do require more personnel to perform tasks required for effective control.



**Figure 34: Number of Firefighting Personnel Based Upon Level of Risk**

Task	Maximum Risk	High Risk	Moderate Risk	Low Risk
Attack Line	4	4	2	2
Search and Rescue	4	2	2	N/A
Ventilation	4	2	2	N/A
Back-Up Line/Rapid Intervention Team	8	6	4	2
Pump Operator	1	1	1	1
Water Supply	1	1	1	N/A
Utilities Support	1	1	1	N/A
Command/Safety*	2	2	2	1
Forcible Entry**	N/A	N/A	N/A	N/A
Salvage**	N/A	N/A	N/A	N/A
Overhaul**	N/A	N/A	N/A	N/A
Communication**	1	N/A	N/A	N/A
Operations Section Chief	1	N/A	N/A	N/A
Logistics	1	N/A	N/A	N/A
Planning**	1	N/A	N/A	N/A
Staging**	1	N/A	N/A	N/A
Rehabilitation	1	N/A	N/A	N/A
Division/Group Supervisors**	2	N/A	N/A	N/A
High Rise Evacuation**	10	N/A	N/A	N/A
Stairwell Support**	10	N/A	N/A	N/A
<b>Totals</b>	<b>53</b>	<b>19</b>	<b>15</b>	<b>6</b>

\* Can often be handled by the first due officer.

\*\* At maximum and high-risk fires, additional personnel may be needed.

Delivering sufficient numbers of personnel to the scene to accomplish all the various tasks required to effectively control an emergency is essential. As is shown by the preceding figure (Figure 34), national criteria suggests at least 15 personnel be on scene of a fire in a single family home for safe and effective operations. More personnel are needed as the size of the structure, the complexity of the incident, or the life safety risk increases or when special hazards exist. At minimum daily staffing levels, KF&BD has 19 emergency personnel available for immediate response to emergencies.

In communities around the country, the number of fire calls has declined over the past decade. Yet as the frequency of fires has diminished, in part due to stricter fire codes and an emphasis on safety education, the workload of fire departments has risen sharply—medical calls, hazardous materials calls, and every sort of household emergency is now addressed by fire departments. Therefore, although the frequency of fires has diminished, the need for a ready group of firefighters has increased.

Although modern codes tend to make fires in newer structures less frequent, today's energy-efficient construction (designed to hold heat during the winter) also tends to confine the heat of a hostile fire. In addition, research has shown that modern furnishings generally burn hotter (due to synthetics), and roofs collapse sooner because prefabricated roof trusses separate easily after a very short exposure to flame. In the 1970s, scientists at the NIST (National Institute of Standards and Technology) found that after a fire breaks out, building occupants had about 17 minutes to escape before being overcome by heat and smoke. Today, that estimate is three minutes.<sup>24</sup> The necessity of firefighters arriving on the scene of a fire in the shortest span of time is more critical now than ever.

Along with a quick response, a robust, well-trained, and appropriately equipped complement of emergency workers is needed to successfully mitigate structural fires. Too few firefighters at an emergency scene decreases effectiveness and increase the risk to both the citizens and the firefighters.

The time required to place workers on the scene of an emergency is crucial to the quality of service. Longer response times occur in the more remote areas of the City, during the morning and evening commute (heavy traffic), and when incidents occur simultaneously. A higher percentage of calls occur between the hours of 8:00 AM and 8:00 PM. KF&BD uses a static or constant staffing model with the same number of personnel available all hours of the day. Based on 15 personnel to accomplish the tasks of a moderate risk fire event, KF&BD emergency operations staffing is at a minimum. ESCI recommends that the City add career personnel during periods of higher call volume to maintain adequate personnel to staff for a moderate risk fire event.

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<sup>24</sup> National Institute of Standards and Technology, *Performance of Home Smoke Alarms, Analysis of the Response of Several Available Technologies in Residential Fire Settings*, Bukowski, Richard, et al.

### Current Service Delivery Infrastructure

The delivery of fire suppression and rescue services is no more effective than the sum of its parts. It requires efficient notification of an emergency, rapid response from well-located facilities, appropriate apparatus, with sufficient staffing, following a well-practiced plan of action. The most visible and valued of the services provided by the KF&BD is the response to and control of emergency events.

To operate in the emergency response environment effectively, fire departments must capitalize on managing various aspects of a large business enterprise. A lion's share of this effort goes into supporting the primary mission. However, there are additional requirements that have to be met and a substantial infrastructure that must exist in order for the organization to function at its best. A key component of an agency's service delivery infrastructure is its equipment and fire stations. The following table summarizes KF&BD's capital facilities and apparatus resources:

**Figure 35: Service Delivery Infrastructure**

Resource	Number
Fire Stations	6
Engines, Front Line	5
Engines, Reserve	2
Ladder (Aerial) Trucks	1
Ladder (Aerial) Trucks, Reserve	0
Aid Units, Front Line	6
Aid Units, Reserve	2
Command	1
Command, Reserve	1
Boats	0
Air Units	1
Water Tenders	0

A comparison of resources between KF&BD and five other fire agencies in Washington that provide service to similar sized communities is found in Appendix F: Comparable Providers.

#### WSRB (Washington Surveying and Rating Bureau)

The WSRB (Washington Surveying and Rating Bureau) evaluates all Washington communities for their fire protection/suppression capability using a schedule approved by the Washington State Office of the Insurance Commissioner. WSRB assigns each community a Protection Class of 1 through 10, where 1 indicates exemplary fire protection capabilities and 10 indicates the capabilities, if any, are insufficient for insurance credit. The insurance classification developed under the schedule is one of several elements used in the development of fire insurance rates. Although the schedule provisions may be of assistance to municipal officials

when used in conjunction with their analysis of local needs, capabilities, and priorities, the schedule is not intended to serve as a primary planning guide for local fire protection. WSRB recommendations offered in connection with insurance classifications are helpful to municipal officials when reviewed in combination with more specific studies of local needs by consultants, staff, or local task forces in arriving at fire protection decisions based upon an analysis of local priorities and financial capabilities.<sup>25</sup>

The grading process is conducted on both a request and non-request basis. To determine a community's Protection Class WSRB objectively evaluates four major areas:<sup>26</sup>

- Fire Department – WSRB reviews engine companies, ladder companies, distribution of fire stations and fire companies, automatic aid received, response to alarms, equipment carried on apparatus, apparatus maintenance, pumping capacity, reserve apparatus, department personnel and training.
- Water Supply – Water supplies used are reviewed to determine their adequacy for fire-suppression purposes. The review involves calculating required fire flows (gpm) for buildings and conducting flow tests to measure water pressures (psi) and volume (gpm). We also consider hydrant size, type, and installation, as well as the inspection frequency and condition of fire hydrants.
- Emergency Communications Systems – The 9-1-1 system is evaluated including facilities, handling and dispatching fire alarms, dispatch personnel and training.
- Fire Safety Control – Fire prevention activities such as fire code enforcement, public education and building code enforcement are reviewed.

After completing the field survey, WSRB analyzes the data and calculates the Protection Class based on a total maximum of 5,000 points of deficiency (see Figure 36 below). The community receives a notification letter identifying the new Protection Class along with a summary report of findings.

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<sup>25</sup> WSRB Grading Schedule and Commentary for Municipal Fire Protection, WSRB (Washington Surveying and Rating Bureau), 2006.

<sup>26</sup> Protection Class Evaluation Overview, WSRB (Washington Surveying and Rating Bureau), Retrieved March 28, 2012.

**Figure 36: Points of Deficiency and Community Class**

Community Class	Points of Deficiency
1 <sup>st</sup> Class	0 to 500 Points
2 <sup>nd</sup> Class	501 to 1,000 Points
3 <sup>rd</sup> Class	1,001 to 1,500 Points
4 <sup>th</sup> Class	1,501 to 2,000 Points
5 <sup>th</sup> Class	2,001 to 2,500 Points
6 <sup>th</sup> Class	2,501 to 3,000 Points
7 <sup>th</sup> Class	3,001 to 3,500 Points
8 <sup>th</sup> Class	3,501 to 4,000 Points
9 <sup>th</sup> Class	4,001 to 4,500 Points
10 <sup>th</sup> Class	More than 5,000 Points

KF&BD's most recent survey by WSRB was in June 1995. Figure 37 is a summary of the survey listed by area, points of deficiency, relative values, and classification.

**Figure 37: KF&BD Grading Schedule, June 1995**

Area	Point of Deficiency	Relative Values
Water Supply	435	1,950
Fire Department	692	1,950
Fire Service Communications	49	450
Fire Safety Control	445	650
Climatic Conditions	52	
Divergence between Water Supply and Fire Department	0	
<b>Total Points</b>	<b>1,673</b>	<b>5,000</b>
<b>Classification</b>	<b>4</b>	

KF&BD is currently rated as a Class 4 by the WSRB for properties within five miles of a fire station. The largest point of deficiency was related to the fire department (35.49 percent). Since the survey in 1995, improvements in staffing, apparatus, and fire stations (Fire Station No. 26 [North Rose Hill] and Fire Station No. 21 [Forbes Creek]) suggest that the KF&BD would benefit from a re-evaluation by WSRB. Also relevant is the annexation of June 2011 that increased the size of the City.

ESCI recommends that a request be made to WSRB to conduct an evaluation of the fire and suppression capabilities of KF&BD. The request must be signed by the mayor and should include a brief explanation of improvements made that would warrant a new evaluation.

### **Conclusion – Fire and Building Department**

The single largest change to occur for the City of Kirkland in years was the annexation in June 2011 of a large area and expansion by 7.8 square miles. City population increased from 2010

by an estimated 62.24 percent to 80,505. KF&BD was already providing contract fire and emergency services to Fire District #41 and added coverage to a portion of Fire District #36 (Woodinville) and a small area of Fire District #34 (Redmond) as a result of the annexation. While KF&BD added emergency response personnel to serve the annexed area, there was no corresponding increase in administration and support. With three KF&BD administration and support positions being of limited duration the personnel resources dedicated to supporting service delivery will decrease. There was a loss of the 0.8 FTE provided by King County Fire District #41. This administrative support position was eliminated at the time of annexation.

KF&BD's greatest percent of calls for service are related to emergency medical incidents and in 2011 the department began the practice of billing for EMS transport services. Emergency agencies of like size and character commonly have staff dedicated to supporting EMS, KF&BD does not. ESCI believes that given the increases in operational personnel and EMS responsibilities there is a need to increase administrative support personnel in a ratio equal to added services and emergency service personnel.

### **Recommendation Summary – Fire and Building Department**

- ❖ Recommendation 1: Amend job descriptions to accurately reflect roles and expectations for administration and support staff. (Implementation Order 1)
- ❖ Recommendation 2: Create a budget category for administrative services for the fire and for building departments. (Implementation Order 7)
- ❖ Recommendation 3: Increase emergency operations by adding a BLS aid unit staffed between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire event. (Implementation Order 5)
- ❖ Recommendation 4: Request WSRB to conduct an evaluation of the fire and suppression capabilities of KF&BD. (Implementation Order 8)
- ❖ Recommendation 5: Annually conduct a detailed analysis of revenue versus expenditure to validate that EMS transportation activity is meeting stated goals established by the City. (Implementation Order 6)
- ❖ Recommendation 6: Add a Medical Service Administrator (MSA) at the rank of division chief to manage the medical division. (Implementation Order 2)
- ❖ Recommendation 7: Bill for EMS transport when responding and transporting patients outside of the City of Kirkland. (Implementation Order 4)
- ❖ Recommendation 8: Add one FTE administrative assistant for EMS and one FTE financial analyst to administrative support functions. (Implementation Order 3)



## Fire and Building Department Findings and Recommendations

### Summary of Stakeholder Input

ESCI solicited input from internal and external stakeholders through two separate venues: one-on-one interviews conducted by the ESCI team during the initial data gathering process and a citizens group formed to participate in the strategic planning process. As part of the interview process, the internal and external stakeholders were asked to identify their perspectives on the department's strengths and weaknesses, as well as the challenges facing the department and critical issues it needs to address.



### Internal and External Stakeholders

#### Organizational Strengths

It is important for any organization to identify its strengths in order to assure it is capable of providing the services requested by customers and to ensure that strengths are consistent with the issues facing the organization. Often, identification of organizational strengths leads to the channeling of efforts toward primary community needs that match those strengths. Programs that do not match organizational strengths or the primary function of the business should be seriously reviewed to evaluate the rate of return on precious staff time. In the course of ESCI's stakeholder interviews, the strengths of the Kirkland Fire and Building Department were identified by both internal stakeholders (representatives of the City Council, city management, and department directors, and the fire department) and a select group of external stakeholders (neighboring emergency service providers). They are listed below as stated by those interviewed.

Organizational Strengths as Identified by:			
City Council	City Management & Department Directors	KF&BD Members	Neighboring Providers
Community satisfied with service	Best trained and highest morale in the area	Training division is good, personnel are well trained	Department has good people and a good leader



Organizational Strengths as Identified by:			
City Council	City Management & Department Directors	KF&BD Members	Neighboring Providers
Good department...they work well with each other and know how to cooperate	The fact that it is a city service—it is personal and available to the public	Comprehensive system that has identified hazards and appropriate resources	Good relations with KF&BD staff
Personnel are devoted and well trained	Service is excellent and well-coordinated	Building division is not under direction of Planning Department	Partnership in mutual aid and NORCOM
Provides good service and delivers what the public expects	Good quality service and effective	Good people who are interested and dedicated	
Good relationship between labor and management		Good neighbors that we train with	
Department is trusted and respected by the public		Good follow through on calls	
		Cohesive staff—no grandstanding	
		We do a lot with less	
		People are treated well by their peers	
		Good people	
		Citizens really appreciate the service	
		Training has improved significantly	
		Chief is motivated and provides leadership	
		Apparatus/equipment/ PPE are in good shape	
		Our people work hard	
		Training is really good, troops are very professional	

### Organizational Weaknesses

Performance or lack of performance within an organization depends greatly on the identification of weaknesses and how they are confronted. While it is not unusual for these issues to be at the heart of the organization's overall problems, it is unusual for organizations to be able to identify and deal with these issues effectively on their own.

For any organization to either begin or to continue to move progressively forward it must not only be able to identify its strengths but also those areas where it does not function well. These

areas of needed enhancements are not the same as challenges, but rather those day-to-day issues and concerns that may slow or inhibit progress.

Organizational Weaknesses as Identified by:			
City Council	City Management & Department Directors	KF&BD Members	Neighboring Providers
System has never met response time goals	City departments don't see that finances are now really difficult; there is a new normal	Hard to say no to new projects	Rumor that KF&BD wants own paramedics—this will hurt regional strength
The issue of overtime	Loss of public information/education and outreach capabilities	Economy forces FDs to decrease resources and become over reliant on mutual aid	Redundancies among neighbors
Huge department with very few fires—most calls are for EMS; many people are sitting around waiting for something to happen	Public education loss is serious	No comprehensive wellness and fitness program	Government can be a barrier
Concerns about sustainability of the system		Struggle with relationships with other City Departments	Procedural differences; they seem to be out of position quite a bit (Engine 25)
Location of fire stations—difficult to serve Kingsgate and Finn Hill		Low company staffing	
Having building and fire under the same department is wrong		Struggle to maintain facilities	
		We struggle with appropriate discipline	
		Lack of buy-in on the importance of prevention by some operations personnel	
		Very limited ability to change	
		Uncertainties	
		Declining money	
		Officer training is non-existent	
		Lack of standards	
		Lack of administrative control	
		No support to take corrective action	

Challenges

To draw the strong suit and gain full benefit of any opportunity, the challenges to the organization must also be identified. By recognizing potential challenges, an organization can greatly reduce the potential for future setbacks. In this particular exercise, stakeholders were asked to identify up to three challenges facing KF&BD.

Organizational Challenges as Identified by:			
City Council	City Management & Department Directors	KF&BD Members	Neighboring Providers
<ul style="list-style-type: none"> <li>Geography; jurisdictional boundaries</li> <li>Money</li> </ul>	<ul style="list-style-type: none"> <li>Need for a fireboat</li> <li>Stability and predictability in costs</li> <li>Any incident will generate overtime</li> </ul>	<ul style="list-style-type: none"> <li>Containing growth of call volume</li> <li>Number of non-emergency calls</li> </ul>	External political forces
Political issues	<ul style="list-style-type: none"> <li>Getting people to engage in safe practices/emergency preparedness</li> <li>Firefighters at risk from injuries and age</li> </ul>	<ul style="list-style-type: none"> <li>Fees are not enough to finance Building Division</li> <li>Adding new permit tracking software</li> </ul>	
<ul style="list-style-type: none"> <li>Coverage</li> <li>Competition for financial resources</li> <li>Possibility of RFA</li> </ul>		<ul style="list-style-type: none"> <li>Budget support</li> <li>Connecting to the community</li> </ul>	
Staffing levels		Need more staff (in prevention)	
		<ul style="list-style-type: none"> <li>Building good relationships with neighbors</li> <li>Act/behave like the size city we are</li> </ul>	
		<ul style="list-style-type: none"> <li>Reserve program is gone</li> <li>Finn Hill Station</li> </ul>	
		Annexation impacts	

Critical Issues

After organizational strengths and weaknesses and challenges posed by the current environs, ESCI asked stakeholders to identify the critical issues they perceive the agency is facing. The following reflect the critical issues that the respondents felt pose the greatest risk today to the success KF&BD's service delivery. As with the organizational challenges, each stakeholder was asked to identify up to three critical issues.

Critical Issues as Identified by:			
City Council	City Management & Department Directors	KF&BD Members	Neighboring Providers
Response time	Slow growth of expenses	Funding, leadership, too few administrative staff	<ul style="list-style-type: none"> <li>• Cost of service</li> <li>• Housing prices down</li> <li>• Dramatically underprepared for a disaster</li> </ul>
Coverage in annexation area	Funding that is sustainable for all city departments	Funding, levy approval for Medic One program	<ul style="list-style-type: none"> <li>• Money</li> <li>• Ongoing workload/cultural shift—need to be more community connected</li> <li>• Need to be more agile in addressing change</li> </ul>
Financial stability	Annexations, revenue, change in building stock	Budget challenge	King County EMS Levy Declining economy
Funding		Administrative support resources (for data extraction and analysis) IT support	<ul style="list-style-type: none"> <li>• Revenues</li> <li>• Controlling expenses</li> </ul>
Building codes are overwhelming		<ul style="list-style-type: none"> <li>• Organizational communications</li> <li>• No recognizable vision—old strategic plan not implemented</li> </ul>	
		<ul style="list-style-type: none"> <li>• Strategic planning</li> <li>• Organizational communication—most information comes via the rumor mill</li> </ul>	
		Lack of communication between fire and building	
		Team building	
		<ul style="list-style-type: none"> <li>• Chief's decisions will set tone for organizational culture</li> <li>• Administration is understaffed Operations chief is overwhelmed</li> </ul>	
		<ul style="list-style-type: none"> <li>• Structure and accountability for offenders</li> <li>• Staffing issue at the line (Fire Station No. 27)</li> <li>• Battalion aid needs to be staffed 24/7</li> </ul>	

## **Community Members**

A citizens' group consisting of local business owners and representatives of several neighborhood associations were invited to participate in the strategic planning session facilitated by ESCI; a total of 11 community members attended the session. Rather than focusing on the organization's strengths, weaknesses, challenges, and critical issues, the community members were asked to identify their priorities, expectations, and concerns with regard to the department and its services.

### Customer Priorities

In order to dedicate time, energy, and resources on services most desired by its customers, the Kirkland Fire and Building Department needs to understand the community's priorities. To assist with the overall strategic planning process, members of the citizens' group were asked to review a short list of planning considerations and rank them through a direct comparison process. The results of that ranking appear below (in priority order):

- Technical competence of firefighters and emergency medical personnel
- Ensuring that facilities and equipment are reliable and functional
- Improving the response time of the first engine or ambulance to arrive at a scene
- Maintaining the existing response times of the first engine or ambulance
- Compassion, empathy, and customer service of emergency responders
- Expanding the types of services offered by the Kirkland Fire and Building Department
- Keeping Kirkland Fire and Building Department costs and tax rates as low as possible

### Customer Expectations

Understanding what the community expects of its fire and emergency services organization is critically important to developing a long-range perspective. With this knowledge, internal emphasis may need to be changed or bolstered to fulfill the customer needs. The following are the expectations identified by several members of the citizens' group.

- Well trained, competent, professional personnel
- Fast response times
- Reliable, appropriate equipment and facilities
- Community education and training for disaster preparedness
- Adaptable to changing conditions; willingness to consider alternative delivery methods

### Areas of Customer Concern

The Customer Centered Strategic Planning process would fall short and be incomplete without an expression from the customers of their concerns about the organization. Some areas of concern may, in fact, be a weakness within the delivery system. However, they may also be perceptions of the customers based on limited knowledge.

- Does it have a sustainable structure? Can it adapt to changes in resources?
- How can services be provided equally across the city? Shift in City resources/personnel away from certain neighborhoods
- Accountable and efficient. Do they have what they need to do the job? Training, equipment, etc.
- Lack of public outreach; communication skills could be improved.

### Positive Customer Feedback

For a strategic plan to be valid, the customer views on the strengths and image of the emergency services organization must be established. Needless efforts are often put into over-developing areas that are already successful. However, utilization and promotion of the customer-identified strengths may often help the organization overcome or offset some of the identified weaknesses.

- Personnel are professional, well trained, experienced, and knowledgeable
- Equipment and facilities are appropriate, adequate for the job, and well maintained
- The department enjoys good leadership
- KF&BD firefighters/EMTs are visibly committed to their community

### Other Thoughts and Comments

The citizens' group participants were asked to share any other comments they had about the Kirkland Fire and Building Department or its services. The response that appeared most often was an appreciation for the opportunity to participate in the process and a desire to improve and enhance the partnership that exists between KF&BD and the community it serves.

## **Department Mission and Values**

### **Mission (Vision) Statement**



Mission and vision statements, goals, and objectives provide key organizational management foundations. Development of such organizational underpinnings is important, but communication of them is paramount. Leaders and workers alike need to understand why the organization exists, where it is headed, and how to

identify success. While the mission of a fire department may seem obvious, if the organization's purpose is left to an individual's imagination, many individual missions will result--which in the end may cause agency members to work at cross-purposes.

The City of Kirkland City Council has established a vision and goals for the City. The stated purpose of the City Council Goals is:

*...to articulate key policy and service priorities for Kirkland. Council goals guide the allocation of resources through the budget and capital improvement program to assure that organizational work plans and projects are developed that incrementally move the community towards the stated goals.*

The goal for public safety is to ensure that all those who live, work and play in Kirkland are safe and the ascribed Council Goal is:

*Provide for public safety through a community-based approach that focuses on prevention of problems and a timely response.*

The Kirkland Fire and Building Department has an adopted vision statement that provides the compass for the organization. The current KF&BD vision statement states:

*The Kirkland Fire Department is committed to the protection of life and the preservation of property and the environment from the adverse effects of fire, medical, and all hazardous conditions through sustained training, progressive education, proactive prevention and a dedicated diligence to provide the highest level of customer service to our Community.*

The Kirkland Fire and Building Department mission, vision, and value statement was reviewed as one element of the strategic planning process.



## Mission, Vision, and Values Validation

The strategic planning process accomplished more than just the gathering of input and a document. It challenged elected officials, city staff, the membership of the KF&BD, and the community to look critically at paradigms, values, philosophies, beliefs, and desires. It challenged individuals to work in the best interest of the “team.” In addition, it provided the membership with an opportunity to participate in the development of their organization’s long-term direction and focus. The members of the KF&BD strategic planning team and the citizen’s advisory group did an outstanding job in committing to this important project and seeing it to final form.

### Mission

Clearly stated and intentionally simplistic, the Kirkland Fire Department *Mission* accurately describes the organization’s general purpose. The validated Mission Statement for the Kirkland Fire Department is:

*Providing timely, emergency response and safeguarding the lives, property, and environment of our community.*

### Vision

Building on this mission, the stakeholders identified a *Vision* for the department, thus establishing targets of excellence for the future. The proposed *Vision* for the Kirkland Fire Department is illustrated in the following:

*The Kirkland Fire Department is a respected partner in our community and an innovative leader in the nation.*

- *We inspire a culture of esprit de corps.*
- *We offer opportunity for personal and professional growth.*
- *We demonstrate professionalism, competency, compassion and a readiness to respond.*
- *We listen to, understand and keep the public informed.*
- *We provide fiscally prudent preventive and emergency services.*
- *Above all, we earn the confidence, trust and respect of the community we serve.*

### Values

Recognizing that its collective personality and the values of its members enhance the organization, the stakeholders declared the following *Values* for the KF&BD:

- **Service** – *Demonstrated innovation and understanding of our internal and external customers’ needs.*



- **Professionalism** – Upholding industry standards and honoring the expectation of a professional firefighter both on and off the job.
- **Integrity** – Maintaining consistency between actions and words at all times.
- **Respect** – Being accountable and demonstrating mutual trust and respect.
- **Innovation** – Providing a supportive work environment that encourages and empowers innovation and risk taking within the norms of the department and the City.
- **Trust** – Trusting other and being trustworthy.
- **Teamwork** – Finding strength in diversity and working together for a common goal.

### **Conclusion – Department Mission and Values**

KF&BD's appraisal, review, and update of its organizational mission, vision and values is consistent with best practices. ESCI recommends that upon completion of this study 2012 Strategic Plan it be validated by KF&BD and adopted by the City of Kirkland City Council.

### **Recommendation Summary – Department Mission and Values**

- ❖ Recommendation 9: KF&BD review and validate the mission, vision, and values following completion of the 2012 strategic plan. (Implementation Order 1)
- ❖ Recommendation 10: Display the adopted mission, vision, and organizational values in City Hall and fire department facilities. (Implementation Order 2)

### **Management Components**

ESCI reviewed management of the Kirkland Fire & Building Department, including an examination of philosophical ideals as expressed by its mission, vision, and values statements. We look to assure that such visionary principles conform to the core values of managers and members and address several other important questions: Are goals and objectives consistent with the City's direction? Are staffing levels adequate to meet City and organizational goals? Do human resource and administration systems meet legal requirements and department needs? Are appropriate financial controls in place?



Communication internal to the City and KF&BD was checked, as was external communication to the community. A review of security issues concerning hard records, electronic data, offices, and buildings was conducted as well as to ensure that all necessary reports and records were produced, completed, and maintained. Last, ESCI describes the merit, benefits and costs associated with fire department accreditation.

### **Staffing and Reporting Relationships**

The position of director of fire and building/fire chief is appointed by, works for, and is under direct supervision of the City Manager. The city charter states that the fire chief shall be head of the fire department and shall have charge and supervision over all matters relating to the prevention and extinguishment of fires and of all measures necessary to guard and protect all persons and property impaired thereby.<sup>27</sup>

### **Deployment**

KF&BD operates six fire stations (five with career staffing) with 12 frontline units and has established a minimum daily staffing level of 19 personnel.<sup>28</sup> *KF&BD Department Manual Directive Number 3.001* dated February 1, 2000, states that the minimum staffing shall be 15

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<sup>27</sup> Kirkland Municipal Code, City Charter, Title 3, Chapter 3.16 City Manager-Administrative Departments.

<sup>28</sup> Source: Minimum staffing design as compared to total staff assigned per shift, 02/15/2012.

with 1 being an officer and 14 firefighters. This directive needs to be updated to accurately represent current minimum staffing.

Figure 38 lists minimum staffing by unit and position in January 2012.

**Figure 38: Minimum Staffing by Unit and Position, January 2012**

Unit	Battalion Chief	Officer (Captain or Lieutenant)	Driver Operator	Firefighter
Engine 21		1	1	1
Engine 22		1	1	1
Engine 25		1	1	1
Engine 26		1	1	1
Engine 27		1	1	1
Aid 21		Cross-staffed with Engine 21		
Aid 22		Cross-staffed with Engine 22		
Aid 25		Cross-staffed with Engine 25		
Aid 26		Cross-staffed with Engine 26		
Aid 27		Cross-staffed with Engine 27		
Aid 29		Cross-staffed with Ladder 27		
Air Unit 21		Cross-staffed with Engine 22		
Ladder 27		1	1	1
Battalion Chief	1			
Shift Captain (Swing Position) <sup>29</sup>		1		
<b>Total</b>	<b>1</b>	<b>6</b>	<b>6</b>	<b>6</b>

A total of 30 personnel are assigned to each shift with minimum daily staffing set at 19. In the minimum staffing matrix, the swing staff position is not identified.

### Human Resources Management

The Kirkland Human Resources and Performance Management Department (HR) develop, manage, administer, and is the information source for employee programs. Many of the human resource activities involve KF&BD:

- Recruitment and selection of new employees – KF&BD with HR involvement
- Civil service program management for public safety employees (police and fire) – HR
- Organizational training and career development – KF&BD
- Employee relations and contract interpretation – HR
- New hire orientation – HR

<sup>29</sup> Not included in minimum staffing total.

- Benefits administration – HR
- Compensation and classification – HR
- Performance evaluation tracking – KF&BD, HR records management
- LEOFF I Disability Board – HR
- Employee safety and risk management services – HR
- Tuition reimbursement – KF&BD
- Policies and procedures – KF&BD internal, HR City policies
- Diversity program – HR and KF&BD
- Wellness program – HR for day staff other departments
- Employee recognition and service awards – HR and KF&BD

The City's human resource department programs, documents, and processes appear to be all-inclusive and in-line with best practices. Human resource documents were not reviewed for legal compliance but appear to contain the depth and breadth of information to comply with federal and state requirements.

Fire department rules and regulations and standard operational guideline documents were reviewed for content, relevancy, and applicability to KF&BD's emergency operations. ESCI found that ARs (administrative rules) and SOGs (standard operating guidelines)<sup>30</sup> specific to the fire department were generally outdated. Additionally, variations were found between City and KF&BD AR documents including safety, purchasing, and public records access, and document retention. KF&BD reported that a limited number of ARs and SOGs have been updated and the department has plans to complete a total revision in 2012. The last time that comprehensive updates of the policies were completed was in 2000 with many dated from the 1990s.

The time and expertise to maintain, update, and verify legal compliance of ARs and SOGs is extensive. ESCI has recommended that a complete set of ARs and SOGs be developed and maintained by periodic review and updating on a set timetable. Review of ARs and SOGs should include involvement and oversight of the City Human Resources and Performance Management Department. However, the time and expertise to maintain, update, and verify legal compliance of ARs and SOGs for the fire department is extensive. Given the importance of creating a complete set of ARs and SOGs, ESCI recommends development and maintenance be outsourced to a third party.

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<sup>30</sup> KF&BD uses the terms P & P (policies and procedures) and R & R (rules and regulations).

*Succession Planning (Development)*

A succession plan should be ongoing and provide a pool of trained, experienced, and promotable personnel to succeed current officers. Succession development is a process whereby a fire department can ensure that employees are recruited and developed to fill each key role within the organization. Actively pursuing succession planning ensures that personnel are constantly being prepared to fill each needed role. As KF&BD key employees retire or accept promotional opportunities, succession development guarantees that there will be officers and firefighters ready and available to fill new roles. Effective, proactive succession development leaves KF&BD well prepared for the loss of a key employee, filling a newly created position, employee promotions, and organizational redesign.

Through succession development, KF&BD can better retain superior personnel because they appreciate the time, attention, and development invested in them. Employees are motivated and engaged when they can see a potential for continued growth and development. KF&BD can use such practices as providing opportunities for assignment to special projects, smaller leadership roles, progressively increasing management roles, and both internal and external training opportunities.

KF&BD should identify and understand the developmental desires of personnel. It is not necessary nor does everyone need or want to be the fire chief. Ensure that firefighters understand the promotional paths and the roles that are available for them to aspire. Focus resources on retaining key personnel and having individuals ready to step up.

Keep succession planning and development simple. At times fire departments have created excessively complex criteria for the succession development process. Keep it simple: It is more important that individuals have a competent coach.

There are several factors typically found in successful succession development initiatives. Examples include:

- Personal involvement of the fire chief and senior officers.
- Senior officers hold themselves accountable for developing future leaders.
- Personnel are committed to their own self-development.
- Success is based on long-term department needs.
- Succession is linked to master planning, strategic planning, and an investment in the future.

- Leadership skill sets and competencies are identified and used when developing future department leaders.
- A pool of talent is identified and developed early for long-term needs.

Many of the costs for succession development are soft costs associated with a commitment of time by the current KF&BD leadership. Other expenditures involve a commitment of funds for internal and external training courses.

ESCI recommends that the KF&BD develop a succession plan to ensure employees are recruited and developed to fill each key role within the organization.

## **Financial Management**

### *Budgeting*

Beginning in 2004, the City of Kirkland changed from an annual to a biennial budget process. State law requires that the first year of a biennial budget be an odd numbered year. Accordingly, the preparation of the biennial budgeting process occurs during an even numbered year, beginning in June and continuing through the end of the year.

The City Council holds a mid-year budget review meeting in June and receives a status report on the current biennial budget and an updated six-year financial forecast, with an emphasis on the coming biennium. Additionally, the City Manager requests input from the City Council about budget priorities and overall direction. The following are key steps that the City takes to prepare its budget.

- 1) In July, the director of Finance & Administration (F&A) makes the official “budget call” to all department directors requesting expenditure and revenue estimates for the current year and the coming two years.
- 2) F&A prepares all general purpose revenue estimates, consisting mostly of taxes, state shared revenues and entitlements, and intergovernmental service revenues, during the first half of August. Additionally, the F&A department receives and reviews departmental revenue estimates during the same time period. Departmental expenditure estimates for the current year and “basic budget” requests for the coming biennium, which represent the estimated cost of maintaining the current service level, are received and reviewed by the F&A department during the second half of August.
- 3) In late August, the director of F&A meets with each department to review their basic budget requests.
- 4) In early September, departments submit additional funding requests (called “service packages”) for new positions, equipment, and projects which are over and above their basic budgets. F&A reviews all service package requests by mid-September.

- 5) In mid-September, the City Manager meets with each department to review their basic budget and service package requests. The City holds a public hearing in mid-September to gather citizen input on proposed revenue sources for the coming biennium.
- 6) The City Manager finalizes the preliminary budget proposal, which includes recommended service packages, by the end of September. In early October, the City Manager and director of F&A brief the council finance committee on the preliminary budget proposal.
- 7) In October, the F&A department prepares and prints the preliminary budget document for the coming biennium. By November 1st, the preliminary budget document is filed with the city clerk, distributed to the City Council and the departments, and made available to the public.
- 8) The City Council holds a series of budget study sessions in November to review the City Manager's proposed budget and to determine if there are any changes they wish to make.
- 9) The City holds a public hearing in mid-November to gather citizen input on the preliminary budget as well as on any changes made by the City Council during their budget deliberations.
- 10) In December, the City Council adopts the final property tax levy for the coming year and the final budget for the coming biennium each by ordinance via a simple majority of the members present. The appropriation approved by the City Council is at the individual fund level.
- 11) The F&A department publishes the final budget document during the first quarter of the following year, distributes the document to the City Council and the departments, and makes copies available to the public.

Interviewees described to ESCI a "tension" between the KF&BD and F&A. Concerns were expressed that the fire department:

- Has a "mind-set" of spending it all each year; if they have money they will spend it to the limit.
- Other City departments have gotten better results by involving F&A on process, budgeting, and making a budget case for fire department programs.

Stakeholder portrayals of the relationship between KF&BD and F&A included some recent positive elements. Affirmation included how the KF&BD successfully handled the EMS transport billing issue and training on internal financial controls of fire officers by F&A.

A new level of cooperation between KF&BD and other City departments is viewed as a positive outcome that is a result of direction from the City Manager's office.



### Purchasing Management

KF&BD spends approximately \$500,000 per year purchasing supplies and services. City purchasing policies reflect best practices calling for separation of duties assigning buying functions to different people, obtaining appropriate authorizations and approvals, securing assets, and verifying charges. With proper segregation, no single person has complete control over all buying activities. KF&BD follows the adopted City purchasing policy for the acquisition of goods and services.

The City issues P-Cards (purchasing cards) to the training division, and fire department administration that have source and product limitations. Regardless of vendor or amount of purchase, all procurements require a P.O. (purchase order) to be generated in the City purchasing system. KF&BD participates in cooperative purchasing in particular for capital apparatus. As defined in City purchasing policy, high value items involve a bid process and assistance from F&A with the process; the fire department develops the specifications.

Adequate controls are in place to ensure fiduciary responsibilities for purchasing items and services for KF&BD are met.

### Equipment Replacement Funding

KF&BD has reserve funds dedicated for the replacement of some capital equipment. The City currently funds replacement reserves for facility systems replacement, vehicles, and personal computers using a “sinking fund” approach, which sets aside funds each year through the operating budget toward the anticipated replacement of that equipment.

ESCI recommends that items with an individual value below capital threshold minimums that are generally purchased in volume and have a total value over \$5,000 be aggregated and included in capital replacement funding. Items generally below capital threshold minimums but acquired in bulk include:

- PPE (Personal Protective Equipment)
- Firefighting hose
- SCBA (self-contained breathing apparatus)
- Radio (portable and mobile)
- Firefighting appliances (nozzles and adaptors)
- Uniforms
- Disaster preparedness equipment (Ham radios, and emergency provisions)



- Generators, fans, and saws

Establishing these items as a capital asset and contributing to an annual replacement fund is appropriate. While a single set of firefighter PPE is approximately \$2,000, acquiring 20 complete sets would exceed \$40,000. It is understood that funding would need to follow the normal budget process, but anticipating the purchase requirement is prudent.

### **Records Keeping**

Records management is a critical function for any organization. A variety of uses are made of written records. Misplaced, stolen, or lost documents can have serious consequences, so it is important that their integrity be protected. RCW 42.56.070 requires public access to certain documents and data.<sup>31</sup> The Kirkland City Council, through approval of Resolution 4669, adopted Public Records Act Rules. A simple, straight-forward link on the City website launches a public records request form for citizens to complete with a stated goal to provide a response within five business days.

Fire department hard copy records are protected in either secured file drawers, secured offices, or both. Computer files are routinely backed up. Electronic files are password and level of authority protected, preventing access by unauthorized personnel.

### **Security**

The citizens of the City of Kirkland have made a significant financial investment in facilities, apparatus, and capital equipment for the KF&BD. Protecting these assets is a fiduciary responsibility of the City and KF&BD and an expectation of the community which funded them. Fire stations were observed by ESCI and reported to be consistently locked and secure from unauthorized entry. Public access to the buildings is limited to community rooms and/or, when accompanied by an employee, business areas. Access to fire stations is via a coded keyless entry system.

KF&BD maintains a current inventory of capital assets. An asset tag and inventory control system is based on the value of an item and for items identified as “attractive assets.” No business-related cash is routinely kept on the premises, reducing the risks associated with burglary and theft. City Purchase Cards (P-Cards), such as VISA™ or MASTERCARD™ credit cards, with limited distribution, strict account controls, and low credit limits are issued for fire

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<sup>31</sup> RCW Sections 42.56.040, 42.56.070 and 42.56.100, Documents and indexes to be made public.

department use. A formal City purchasing policy and procedures for the acquisition of services and items are in place and strictly enforced.

### **Management Reporting**

KF&BD uses an RMS (records management software) to enter and store emergency incident information. The software is compliant with NFIRS (National Fire Incident Reporting System) standards and incidents are entered appropriately. Exposure records for blood and airborne pathogens are recorded in HealthForce – Workplace Health Solutions. However, there is no formal process for managing other types of exposure records. Appropriate records are maintained for documenting the testing of self-contained breathing apparatus (SCBA), hose, ladder, pump, breathing air, vehicles, gas monitor, and radiological detection equipment.

ESCI recommends that the KF&BD and the Human Resources and Performance Management Department develop a procedure and policy for reporting and retaining all employee exposure records.

Periodic reports on the financial activities of KF&BD are provided to the City's elected officials by the Finance and Administration Department. Fire department operational reports are delivered to the City Council on a request basis. An annual report is produced and includes emergency response data analysis. The annual report is distributed to the City Council, City Manager, and others on an as-requested basis. At the time of this study the 2011 annual reported had not been completed.

Fire department personnel records are retained by the City Human Resources and Performance Management Department. They are maintained in a manner that protects private medical information in compliance with HIPPA (Health Insurance Portability and Accountability Act) requirements. Records retention includes documents related to an employee's relationship with the City (employment history), discipline, commendation, performance evaluation, work assignment, injury, exposure, and leave use.

### **Internal and External Communications**

#### *Media Relations/PIO*

KF&BD's external communication effort is not robust. Due to budget decisions the KF&BD Community Information and Education Specialist position that served as the department public information officer (PIO) was eliminated at the end of 2010. KF&BD relies on the City's Communications Program Manager (CPM) to manage external messaging to the media. The

(CPM) reported to ESCI that it is too early to tell if dependence on this position will be effective long term. A barrier identified to the success is the availability of KF&BD administrative staff to respond promptly to CPM requests for information or when a time sensitive story must be approved prior to release. Messaging must be timely, especially when using the media as the vehicle for dissemination of material. A lack of available management personnel to draft, review and approve press releases which reduces the effectiveness of the message and may relegate the message to a footnote. KF&BD does not dedicate personnel to staff a media sector at emergency incidents.

The City CIO is the public affairs producer of “Currently Kirkland,” a local government channel that provides local news, information on community activities, and special features about the City of Kirkland. This medium could be leveraged by KF&BD as an outlet for telling its story and distributing public safety messages to the community. While viewership may not rival network television, these types of government access programs have a high percentage of actively engaged citizens who will multiply the message by their activism.

A recent example of the problem inherent in a passive approach to external communication and community outreach was Finn Hill Fire Station controversy. This community conflict could have been managed more effectively by anticipating where the controversy might lead, understanding what the key points of conflict are, and “getting ahead” of the story. Anticipating the spread of a controversy affords the fire department and City an opportunity to develop message points and get them out to the community to prevent a conflict or at a minimum avoid being placed in a defensive posture.

Proactive messaging can include public interest stories that are not time sensitive and can be run “on a slow news day” or in concert with a global news event that provides a local angle. These messages can be developed as staff has time to develop them and be kept on file until the fire department can leverage the story to the greatest advantage.

A dynamic, contemporary, up-to-date, and useful website provides an additional avenue of distributing information and communicating with the public. KF&BD’s web presence appears to be kept up to date in some areas and significantly out of date in others. Citizen interest is maintained in a website that is continuously changing to meet the needs of the community. The website could be enhanced by producing and adding citizen training videos to the site. Expanding the use of interactive components such as surveys and downloadable documents

(fire escape plans, preparedness, and self-help checklists) will help to keep the community engaged. Potential benefits include a reduction in community risk through education, and a multiplied impact of staff-hours dedicated to educational endeavors. To keep content fresh and relevant, a regular schedule of updating and maintenance of the fire department website is recommended.

ESCI recommends that the KF&BD make media messaging a priority and use “Currently Kirkland” and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages. This should include a proactive message file where the subject is not time-sensitive, but timely release may position the message to its greatest advantage.

### Internal Communications

Quality communication requires continuous attention and effort for any organization. At the KF&BD, the administration and operations chiefs conduct monthly meetings with staff. The building official and both deputy chiefs (executive staff) meet on a weekly basis and all chief officers attend company officer meetings once a month. The fire chief meets with the labor group (labor management) once a month and visits fire stations two to three times a month. Minutes for internal meetings are taken by a meeting attendee.

Fire departments should have a systematic method for distribution of written communications established and maintained in order to make certain that no members are excluded from the information loop. Critical information should not be distributed in a one-way communication model with the assumption that personnel have reviewed and understand the content. For these circumstances, the chain-of-command should be used to disseminate critical or time-sensitive information during crew meetings. KF&BD issues internal written, formal memoranda when major events occur, such as the hiring of new personnel, promotional announcements, or informal commendations. Otherwise, e-mail is used for routine fire department communication. Overall, ESCI found that a significant effort in communication is being invested internally by KF&BD staff to provide an opportunity for department personnel to be informed, heard, and involved.

With the high cost and logistical difficulty of bringing all members together for a briefing or meeting, selected fire departments are using other approaches to communication. One example is a department that employs monthly broadcasts made by fire chiefs that are delivered

over a secure network. The broadcast is recorded for later viewing by department membership unable or unavailable to view the content live. Questions arising from the broadcast or from e-mails submitted to the fire chief are answered in an internally distributed newsletter. The internal newsletter contains information specifically for employees. ESCI recommends that the KF&BD expand internal communication with a monthly informational broadcast meeting with department staff.

Live broadcasts are viewed as a viable method to deliver a consistent message on a regular basis to all KF&BD personnel. They are not intended to replace routine meetings between the fire chief, fire department leadership, and department personnel. It was ESCI observation that there are long periods of time between opportunities for personnel to meet and confer with the fire chief. With a live monthly informational broadcast meeting between the fire chief and department personnel it could be rebroadcast or replayed at a time that is convenient for department personnel.

### Decision-Making Processes

It is widely recognized that when employees are provided with the opportunity to engage in the decision-making process, the organization benefits from a higher level of commitment and ownership in the success of the organization.

For fire departments, the opportunities to delegate decision-making down through the organization are quite numerous. Chief officers (deputy chiefs and battalion chiefs) are often given the task of making staffing decisions. Company officers can be given responsibility and/or authority for scheduling, program management, training, and fire station operations. Firefighters can make determinations as to patient care, station and apparatus maintenance.

The decision-making process for KF&BD is defined and participatory where appropriate. In the past, the relatively small size of the organization lent itself to a more personal and informal decision-making process. ESCI found that when making decisions KF&BD personnel tended to still view the department as intimate and insular. KF&BD and the City can still be intimate but the reality is that it is now a large, complex enterprise with multiple facets.

Where participation is solicited by management in the decision-making process, those involved should be knowledgeable of the key findings by which the decision was made. This process may go a long way in acceptance of the decision and providing a sense of worth and value in the employees, even though the decision may not reflect their input. ESCI observed that the fire

chief encourages and applies participatory communication to decisions with staff and operational personnel interacting through all levels of the department.

**Kudos 3:** Fire Chief Kevin Nalder encourages and applies participation in the decision-making process by involving staff and operational personnel from all levels of the department.

### Interdepartmental Communications and Relationships

Throughout this process ESCI heard comments and observed interaction regarding KF&BD's relationships with other City departments. The description of fire department relations with other City departments were represented as okay then couched with "but," "The fire department does not understand how other departments can help them and that they are not the only City department." In more than a few instances relations with KF&BD and other City departments were described as being tense or that there is tension. It was suggested in discussions with stakeholders that one way for improving interdepartmental relations was to have KF&BD personnel receive exposure to other City departments. Such an example occurred recently between KF&BD and the finance and administration department.

In an effort to improve acquisition and internal control systems, Kirkland Finance and Administration Department delivered training to KF&BD fire officers. ESCI views this action as positive for fire department personnel to grasp an understanding of City procedures and building healthy inter-department relationships. The deeper understanding must go both ways however. Providing the other city departments with training and exposure to the challenges and issues facing the fire department also assists in improving interdepartmental relations. This is addressed in greater detail in the strategic planning elements of this report.

Other City departments were just as likely to commend the fire department for positive relationships and actions. KF&BD was recognized by two other City departments acknowledging the department's efforts at doing a good job with the Fire Corps program.

In the course of this evaluation the City instituted an *Internal Process Review*. The four stated goals of the process review are to:

- Optimize department administrative processes
- Ensure supportive work is completed
- Establish/reinforce effective working relationships between operating and support departments

- Better understand (individual) department's needs for future planning purposes

### **Health and Wellness Program**

Keeping members safe and healthy is an important component of a fire department's method of operation. It has been clearly documented that it is by far cheaper to prevent injury than to pay for rehabilitation and work replacement.<sup>32</sup> Modern, progressive departments are incorporating numerous methodologies into the daily routine of firefighters to help in this regard.

There is a need for fire departments to have access to a group of professionals with expertise in the occupational medicine field. Occupational medicine is dedicated to promoting and protecting the health of workers through preventive services, clinical care, research, and educational programs. One aspect of such a program is keeping up-to-date with health and safety regulations, standards, and current practices. Occupational medicine specialists review current practices to see if they meet industry regulations, make modifications if needed, and assist the department in adopting any changes. Another aspect of a holistic occupational medicine system is fitness programs. Fitness programs are used to monitor and develop required physical training to keep personnel ready for the tasks to be performed and reduce the possibility of injury while on the job.

The importance of employee health and welfare and the potential liability associated with the lack of such programs necessitates that fire departments establish close professional relationships with occupational medicine specialists to assure that emergency workers are protected by the most up-to-date occupational health and safety programs possible.

Occupational safety and health programs (sometimes referred to as Industrial Medicine) vary in depth, form, and delivery. A fire department may employ a physician full time, contract with a provider organization, or conduct a program partially in-house while contracting for the remaining services. There are several hospitals and medical centers in the area which have programs that may meet the needs of KF&BD.

One such occupational medicine program that ESCI is familiar with uses the fire department wellness coordinator to conduct audiometric, spirometric, and vision screenings before personnel complete their annual physical evaluation. The occupational medicine provider then

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<sup>32</sup> *American Journal of Industrial Medicine*, Volume 43, Issue 4; "The Economic Consequences of Firefighter Injuries and Their Prevention", National Institute of Standards and Technology, pgs 454 – 458, March 2005.



conducts blood draws at individual fire stations. Consequently, at the time of the medical physical, the physician has at his/her disposal the firefighter's historical and current medical screening records.

The medical physical, stress test, and all other components of the evaluation are done as part of the fire department's regular training rotation at a regional training center. Through a professional relationship developed with a medical service provider over several years, the fire department in this example was able to receive this level of service at a very competitive price.

The legal requirements for a fire department occupational safety and health program have been established. How a fire department administers and supports the program determines the success and the resultant benefit. In the example, the department mentioned previously had to hire back extra staff or pay employees overtime to take annual medical physicals. The occupational medical program resulted in a cost avoidance of more than \$15,000 through reduced overtime cost; some funding is still required for medical follow-ups and for employees not able to meet the schedule.

An additional advantage of using a local occupational safety and health provider is the ability to quickly evaluate and treat non-threatening injuries suffered by employees.

KF&BD has established medical physical standards and provides medical physical examinations; depending on the individual's age, risk factors, etc., additional evaluations and tests are provided. Examinations should follow *NFPA 1582*.<sup>33</sup> Baseline values for all firefighters should be established at time of hire/appointment that includes: titer level, vision, spirometry, audiometric, hepatitis, B, and C, and tetanus.

A stress test is used to determine the amount of stress that a heart can manage before developing either an abnormal rhythm or evidence of ischemia (inadequate blood flow to the heart muscle). The test provides information about how the heart responds to exertion. It usually involves walking on a treadmill or pedaling a stationary bike at increasing levels of difficulty, while heart rate, and blood pressure are monitored, with a physician present. The test helps to determine if there is adequate blood flow to the heart during increasing levels of activity and the likelihood of having a coronary event or the need for further evaluation. KF&BD fitness standards used during the hiring process are job-related. The fitness evaluation for incumbent

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<sup>33</sup> *NFPA 1582: Standard on Comprehensive Occupational Medical Program for Fire Departments*, 2007 Edition.



employees is not job related. Incumbent firefighter fitness is assessed by measuring the number of pull-ups, sit-ups, push-ups, and timing a run.

Medical physical assessment should involve periodic stress tests of incumbent employees/members every two to five years, based on age and risk factors. We recommend that a stress test be performed at the time of hire to determine if a candidate has an underlying heart defect or disease that would put them at risk while performing the duties of a firefighter. The leading cause of death for firefighters is heart attack (44 percent). Death from trauma, including internal and head injuries, is the second leading cause of death (27 percent). Asphyxia and burns account for 20 percent of firefighter fatalities.<sup>34</sup>

### **Conclusion – Management Components**

Fundamental tools necessary for organizational management are inadequate. ARs (administrative rule) and SOGs (standard operating guideline) specific to the fire department were generally outdated. Additionally, variations exist between City and KF&BD AR documents including safety, purchasing, and public access to records and document retention. There should be a sense of urgency given to developing a complete set of documents.

Internal tension between the KF&BD and F&A is concerning, though recent moves on the part of the two directors has made what is described as “improvement” to the working relationship.

KF&BD’s management of external communication effort has been reduced to reacting to media worthy events. Limited administrative staff for information requests on time sensitive stories further reduces the fire department’s ability to seize opportunities to tell its story. An effective option for linking with the community is through a website presence. KF&BD’s web presence appears to be kept up to date in areas and significantly out of date in others.

Without the assistance and a greater degree of cooperation between and from other City departments, KF&BD lacks the administrative and support staff to give public education and information programs little more than lip service.

### **Recommendation Summary – Management Components**

- ❖ Recommendation 11: Outsource development and maintenance of Administrative Rules and Standard Operating Guidelines to a third party. Development and maintenance of

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<sup>34</sup> The United States Fire Administration (USFA), *The USFA Firefighter Fatality Retrospective Study: 1990-2000*, October 2002.

Administrative Rules and Standard Operating Guidelines should include involvement of the City human resource department. (Implementation Order 1)

- ❖ Recommendation 12: Develop a succession plan to ensure employees are recruited and developed to fill each key role within the organization. (Implementation Order 11)
- ❖ Recommendation 13: Prioritize media messaging. Use “Currently Kirkland” and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages. (Implementation Order 2)
- ❖ Recommendation 14: Anticipate controversies or events which may generate media or community interest and develop a media or messaging plan in advance. (Implementation Order 7)
- ❖ Recommendation 15: Develop a proactive message file where the subject is not time-sensitive, but timely release may position the message to its greatest advantage. (Implementation Order 12)
- ❖ Recommendation 16: Develop interactive content for the fire department website: citizen training videos and downloadable documents (fire escape plans, preparedness, and self-help checklists). (Implementation Order 9)
- ❖ Recommendation 17: Update existing content on the fire department website and schedule regular maintenance. (Implementation Order 8)
- ❖ Recommendation 18: Administer a stress test at the time of hire and periodically on incumbent employees/members based on age and risk factors. (Implementation Order 5)
- ❖ Recommendation 19: Develop a procedure and policy for reporting and retaining all employee exposure records. (Implementation Order 4)
- ❖ Recommendation 20: Aggregate like item equipment purchases with a total value of \$5,000 or more and include in the City’s annual budget. (Implementation Order 12)
- ❖ Recommendation 21: Develop, validate, and employ a physical evaluation process that is job related. (Implementation Order 6)
- ❖ Recommendation 22: Establish a medical baseline for new firefighters at the time of hire/appointment. (Implementation Order 2)
- ❖ Recommendation 23: Produce a live monthly informational broadcast meeting between the fire chief and department personnel. (Implementation Order 10)
- ❖ Recommendation 24: Provide a fire service-related occupational and health program. (Implementation Order 3)

### **Emergency Management (Disaster Preparedness)**

Comprehensive planning that includes risk assessment, communications systems and networks, personnel training and exercising, and hazard mitigation, forms the basis of effective emergency management and disaster preparedness. Because the impact of these incidents is often widespread, a regional perspective for the plan's design is essential.



The Office of Emergency Management (OEM) is a City wide function under the Fire and Building Department. J. Kevin Nalder as the Director of the Fire and Building Department and City Emergency Management, directs the OEM while the deputy chief of administration serves as the emergency manager.

#### **Overview of Emergency Management Services Provided**

Elements of expected government functions entail: 1) preparedness, 2) response, 3) recovery, and 4) mitigation. The Preparedness Cycle calls for local agencies to perform the following tasks to ensure their ability to fulfill those expectations:

- Plan
- Organize, train, and equip
- Exercise
- Evaluate and improve

This section assesses the current status of the City of Kirkland's Comprehensive Emergency Management Plan (CEMP) and emergency management and disaster preparedness program design.

An emergency management program relies foremost on capable staff in sufficient numbers, to carry out the elements of the CEMP. We begin our survey of this program design with an overview of assigned staffing.

### Staffing and Reporting Relationships

The director of fire and building/fire chief holds the title, responsibility, and accountability of emergency director<sup>35</sup> for the City of Kirkland but is not included in the staffing budgeted for the OEM.

### Emergency Management Staffing

There are 1.5 FTEs assigned to staff the City emergency management program:

- Deputy Fire Chief (0.5 FTE)<sup>36</sup>
- Coordinator (1.0 temporary FTE)

A cadre of external and internal volunteers has been recruited to assist with community preparedness:

- Volunteers (includes 2 emergency volunteers; 12 Fire Corps volunteers; 1 AmeriCorps VISTA volunteer through August 2012)
- Amateur Radio Emergency Services<sup>37</sup> (ARES) and Radio Amateur Civil Emergency Services<sup>38</sup> (RACES) (40 volunteer personnel)
- The EMAT (Emergency Management Action Team) is a group of City department representatives that coordinate updates to the CEMP and emergency preparedness activities and information

### Emergency Management Action Team (EMAT)

The Emergency Management Action Team (EMAT) is an internal City team that assists emergency management with non-emergency communication. This team is comprised of a mix of staff members from each of the City's departments. The stated purpose is to assist with emergency preparedness, internal information dissemination and solicitation, monitor training requirements, and capturing feedback on emergency operations center (EOC) staff assignments. EMAT is led by the emergency management coordinator.

### Amateur Radio Emergency Services (ARES)

Amateur Radio Emergency Services (ARES) is a group of community volunteers (approximately 40 members) dedicated to the delivery of communications during a disaster of large scale emergency incident. Established in 1995, this group of registered disaster volunteers can

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<sup>35</sup> Kirkland Municipal Code 3.20; WAC 118.

<sup>36</sup> Amount of time dedicated to emergency management is an estimate provided to ESCI by the administration deputy fire chief.

<sup>37</sup> ARES (non-government) is typically activated before, during, and after an emergency; handles all types of communications.

<sup>38</sup> RACES (government) is active only during an emergency; provides communications support for government emergency management offices.

operate radio transmitters located in each fire station, city hall, the EOC, or the maintenance center. The City recently invested \$57,000 of CIP funds to upgrade the radio equipment used by ARES.

#### Community Emergency Response Training (CERT)

A group of 15 to 20 volunteers participate and assist with Community Emergency Response Training (CERT), Map your Neighborhood, and the Preparedness outreach programs. The deputy chief of administration (emergency manager) is the program coordinator.

There is a new cadre of volunteers that has been recruited to assist with community emergency preparedness. As of the date of this study program details have yet to be established. The AmeriCorps VISTA volunteer has been the point person for most of the volunteers in the OEM. This grant position ends in August 2012.

KF&BD lacks sufficient career personnel resources to fulfill essential roles for the mission and design of the emergency management program. In its place, the City assigns key responsibilities to senior managers of the KF&BD as part of their job description duties. The temporary nature of the emergency management coordinator position has created an uncertainty among staff and has left the program predisposed to turnover. The deputy chief of administration represents the single point of continuity for the emergency management program of the city from year to year, thus represents the single point of failure. This ties the program's success to an individual and reduces the availability of the deputy chief of administration in other fire department responsibilities.

The OEM relies on City staff to participate in emergency management functions. Staff from each of the City departments has employees that are actively involved in operation of the EOC, assigned to disaster response teams, and contributed to Kirkland's CEMP.

Current staffing practices mean that KF&BD must rely heavily on City staff from all departments during an emergency event. In order to capitalize effectively on these volunteer resources, KF&BD must develop and implement a plan that outlines how volunteers will be used and how they will be managed.

#### EOC (Emergency Operations Center)

When an emergency or disaster incident occurs, local agencies must carry out multiple functions swiftly and effectively in an effort to protect life, property, the environment, and the

economy in a concerted effort to restore normalcy. The number, nature, and urgency of problems during an emergency differ greatly from those during normal governmental operations. The complexity, criticality, and interdisciplinary nature of these events dictate the need for a centralized and unique planning and coordination center.

An Emergency Operations Center (EOC) at a central location should be used for information gathering, disaster analysis, and response coordination. Elected and appointed officials use this information for decisions concerning emergency actions and to identify and prioritize the use of needed resources. Emergency warnings, critical information, and instructions to government personnel and the public are vital for success.

Gathering information, making decisions, and taking necessary action requires close coordination between key officials who may not normally work together. Decisions and response actions must be coordinated, integrated, and applied thoughtfully from a central location. A proven way to maximize coordination and application of resources in an emergency is by centralizing response actions in an EOC.

The City of Kirkland does not have space designed and dedicated primarily to the functions of an EOC. Existing space is converted and workarounds must be instituted. These steps take time and lead to further delays and complexities when the space assigned as an EOC is otherwise in use.

#### Interdepartmental Communications

The emergency management coordinator with support from the community program manager facilitates internal communications through the Kirkland intranet network. Emergency Management Assistance Team (EMAT) members meet on a regular schedule and are supplemented with numerous face-to-face and e-mail communications. Newsletters and memoranda are not routinely used as part of internal communications.

#### External Communications

The City of Kirkland's website is the primary resource for public (external) communications with the community. Management of information distribution is directed by the OEM and supported by the City's communications program manager. Kirkland also participates in a regional public information network which community members can voluntarily receive posted information. Electronic reader boards are located at each of the fire stations to provide routine information

and can be deployed during an emergency event. The OEM directs external communication when the OEC is activated in a disaster or during emergency events.

### Inter-jurisdictional

North East King County Regional Public Safety Communication Agency (NORCOM) serves as the community's public safety answering point (PSAP) for 9-1-1 calls and dispatching emergency resources. NORCOM maintains a reverse 9-1-1 system whereby it can deliver a recorded emergency notification to a geographically selected set of telephone service subscribers. The City of Kirkland has access to the emergency notification system for the dissemination of information.

Kirkland emergency management personnel are active with the Local Emergency Planning Committee (LEPC) and participate on regional planning committees with the school districts.

The City of Kirkland has a need to plan, prepare, and be in a position to manage natural and man-made emergency events. Given that many of the events are high risk – low frequency events, the focus of funding and personnel are often directed to other efforts. A strategy employed by various emergency service providers is to collaborate on staffing for services that are of mutual interest. Two neighboring fire districts and others jurisdictions have invested in emergency management. ESCI recommends that the City of Kirkland seek a cooperative effort with other agencies, contracting emergency management services from KF&BD.

## **Emergency Management Planning**

All emergency management and preparedness planning documents, records, and reports are retained in electronic format.

### Documentation

Kirkland's Comprehensive Emergency Management Plan (CEMP) includes a formally adopted mission and objectives linked to its programs.<sup>39</sup> The program mission provides guidance in disaster prevention, preparedness, response, and recovery. The plan emulates the National Response Framework, the Washington State and King County CEMPs, and the Zone 1 (Northeast area of King County) Regional Disaster Plan.

Kirkland's CEMP is posted on the City's website and is available for review and download. The current CEMP was developed in 2010 and is subject to review and revision on a four-year cycle.

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<sup>39</sup> City of Kirkland Resolution R-4865; February 15, 2011.



While incomplete this plan is thorough, integrated with regional, state and national plans, and well organized. The Continuity of Operations (COOP) and Continuity of Government (COG) plans have not been completed due to a lack of funding.

The City of Kirkland has a current Hazard Identification and Vulnerability Assessment (HIVA). A HIVA provides a summary of risk to the City from a variety of different hazards. A Hazard Mitigation Plan (HMP) provides guidance to local public safety officials on projects that could help mitigate the effects of potential hazards such as severe storms, earthquakes, wildfire, and flooding. Federal Emergency Management Agency (FEMA) funding for pre-disaster mitigation is dependent on the adoption of an approved Local Hazard Mitigation Plan.

#### Training/Drills

The OEM staff plans, develops, and coordinates EOC training exercise. City employees with EOC or disaster team assignments participate in training and exercises. Like many urban cities today, there is little time among the work priorities of department employees to attend to emergency management roles and responsibilities. However, without leadership input into disaster preparedness planning and training, directors and department personnel can be surprised by plan components as an incident unfolds. City leaders must continue to prioritize time and focus attention to emergency management roles and responsibilities at key junctures in the planning processes.

#### Community Involvement

Citizen awareness and involvement in emergency preparedness is vital for success. Citizens need convenient access to emergency management staff to support community involvement. Individuals and groups can direct questions, suggestions, and complaints to the City by means of the website. Community and neighborhood meetings are not a normal component of external communications for emergency preparedness. Meetings to communicate the City's emergency preparedness to neighborhood and community groups should be conducted regularly.

The following paragraphs provide an overview of three key volunteer initiatives under the direction of the KF&BD deputy fire chief of administration

#### Community Emergency Response Team (CERT)

Emergency preparedness training is available to the community through the CERT (Community Emergency Response Team). Training classes are determined by the number of community members enrolling through the City's website. Emergency preparedness training is provided to



KF&BD personnel but fire department and other city personnel are not included in emergency exercises.

The development of the CERT program was a principal focus and activity of the City's emergency management program. CERT modules instruct neighbors in disaster preparedness for hazards that may impact their community and introduces basic disaster response skills such as fire safety, light search and rescue, team organization, and disaster medical operations.

Using the skills learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. Members of CERT are encouraged to support their emergency response agencies by taking a more active role in emergency preparedness projects in their wider community.

Program funding for CERT was decreased in the 2010 budget process. Volunteers and community members have raised funds to sponsor two CERT classes with the OEM in 2012. The CERT program is coordinated by volunteers, taught by a KF&BD firefighter and supervised by the deputy chief of administration.

### Fire Corps

Fire Corps is the name of a Federal Emergency Management Agency (FEMA) grassroots strategy that brings together government and community leaders to involve people in all-hazards emergency preparedness and resilience. Fire Corps is one of five Citizen Corps programs and its mission is to connect community volunteers with their local fire department to assist with non-emergency tasks. Once trained these community volunteers perform non-operational roles that develop, implement, and sustain programs and services to help their fire department meet certain community needs.

Kirkland Fire Corps program has just been established in Kirkland. A KF&BD fire captain manages the program with oversight by the deputy chief of administration (emergency manager). Fire Corps has 12 members who are involved in activities that support the fire department and the OEM.

### Map Your Neighborhood

A third external community preparedness activity is the Map Your Neighborhood (MYN) program.<sup>40</sup> Sample elements of the mapping survey includes ascertaining neighbors with relevant skills to assist, locating vulnerable neighbors, and determining the location of residential natural gas shut offs on a neighborhood map. Due to the autonomous nature of this program, there is no practical means to measure the currency and readiness of the Map Your Neighborhood program. The AmeriCorps VISTA resource person position that is responsible for oversight of OEM volunteers is available until August 31, 2012.

This program offers a unique way for neighbors to connect before, during, and after a disaster or emergency event. There are nine basic steps to the program whereby neighbors can take appropriate action to help each other. However, the program can be strengthened by developing a “block captain” concept and hosting a meeting with these block captains to facilitate brainstorming, share, and create an opportunity for the Kirkland professional staff to provide advice and counsel to the MYN program.

With this many community members involved in emergency management programs and a finite number of personnel resources for oversight, ESCI recommend that KF&BD develop and implement a plan that outlines how volunteers will be used and managed during emergency events.

### **Conclusion – Emergency Management**

Given the number of tasks and functions required of managing an emergency management program, KF&BD is performing well considering the lack of FTEs allocated to the program. However, this comes at an opportunity cost to the fire department by squeezing out other program needs (financial, HR, IT, services to name a few) that would otherwise be provided by the deputy chief of administration. Acquiring additional staff to provide the daily work necessary to maintain a state of readiness would free the deputy chief to perform other essential tasks directly related to the administration of the fire department, relegating the emergency management workload to providing management guidance and gravitas to the program. Further, key plans and documents are missing from the program; specifically the COOP, COG, and HIVA/HMP. Emergency management program documents must be developed and volunteer groups (CERT, ARES/RACES, Fire Corps, AmeriCorps VISTA) need to be honed into

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<sup>40</sup> Map Your Neighborhood is an award-winning program from the Washington State Emergency Management Division that seeks to build and strengthen preparedness within local neighborhoods.

a cohesive, focused team, each contributing as appropriate toward the emergency management mission.

### **Recommendation Summary – Emergency Management**

- ❖ Recommendation 25: Develop and implement a plan outlining how volunteers will be used and managed during emergency events. (Implementation Order 5)
- ❖ Recommendation 26: Identify a location and develop a dedicated EOC; apply for a matching grant from the Washington EMD Emergency Operations Center Grant Program (requires a 25 percent local match). (Implementation Order 4)
- ❖ Recommendation 27: Seek potential partner agencies to provide contracted emergency management services from KF&BD. (Implementation Order 7)
- ❖ Recommendation 28: Complete and publish the COOP and COG plans. (Implementation Order 2)
- ❖ Recommendation 29: Develop a Hazard Identification and Vulnerability Assessment and a Hazard Mitigation Plan. Submit to King County for inclusion as an annex to the County plan. (Implementation Order 3)
- ❖ Recommendation 30: Involve KF&BD and other City of Kirkland employees in community-based emergency exercises at least annually. (Implementation Order 6)
- ❖ Recommendation 31: Hire a full-time City emergency manager, shifting daily responsibilities from the Deputy Chief of Administration to the emergency manager. (Implementation Order 1)

## **Fire Prevention Bureau**

### **Overview of Fire Prevention Services Provided**

This section assesses the current status of the KF&BD's fire prevention and public education program. A comprehensive and effective fire prevention program is grounded on adoption of the current Washington state building code.<sup>41</sup>

Services expected in such a program are:

1) regulation of new construction in the community; 2) regular inspection of regulated occupancies and enforcement of applicable codes; 3) delivery of fire prevention and life safety information and skills training to the general public; 4) investigation of all fire incidents and assisting in the prosecuting the crime of arson; and 5) a reliable, secure records management system.



Effective service delivery requires capable staff in sufficient numbers to carry out the mission of the program. We begin our survey of this program with a summary look at staffing.

### **Staffing and Reporting Relationships**

Four full-time equivalent (FTE) personnel staff the Fire Marshal Office (FMO or Bureau of Fire Prevention) of the KF&BD. The position titles include:

- Fire Marshal
- Assistant Fire Marshal/Inspector
- Deputy Fire Marshal
- Inspector

### **New Construction Review**

The City of Kirkland's process for permitting new construction actively involves the KF&BD fire marshal, beginning with a pre-application conference for commercial developments and continuing throughout the construction process. The fire marshal's signature is required on any permit for construction and on the subsequent certificate of occupancy.

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<sup>41</sup> Revised Code of Washington (RCW) 19.27.031

The new construction approval process incorporates a two-part fire and life safety plan review. First the building division applies the building code. Second, the fire marshal focuses on fire department access (less than or equal to 150 feet from the building), fire flow, sprinklers, hydrants, fire alarms, and extinguishers.

Kirkland's comprehensive fee schedule supports permit activity. Projected fire marshal service costs are built into the City's permit fees. Fire marshal charges are an actual hourly rate for plan review of a project. The Kirkland Building Division tracks permitting and inspection activity with EnerGov Solutions software.

KF&BD's emergency services have a need for pre-fire (quick access) plans of public, commercial, industrial, and assembly structures. Quick access plans are used in training activities and during emergency incidents to give firefighters familiarity with access and egress points, utilities, hazards, and a general layout of the structure. A considerable amount of building structure information is captured during the permitting, construction, and inspection process. Integration of the fire prevention records with EnerGov RMS used by the building division would meet the requirements of KF&BD for quick access plans.

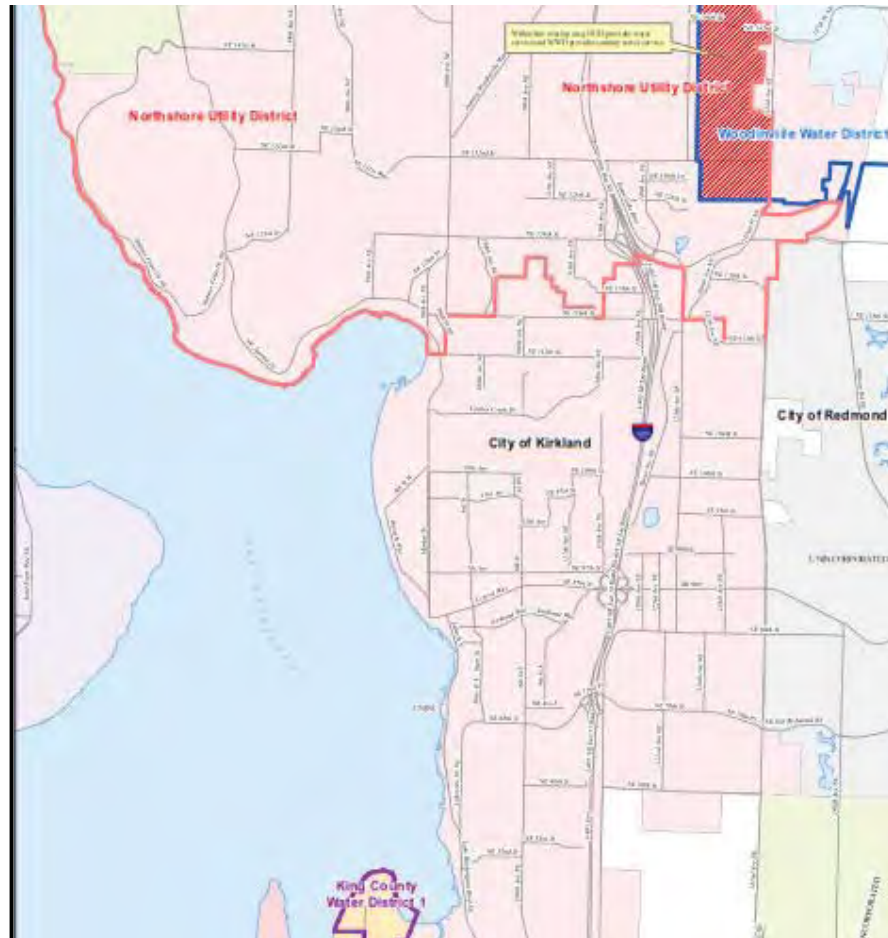
The City of Kirkland Water Division, the City of Bellevue and Northshore Utility, Woodinville, and King County Water Districts maintain the water supply and distribution system, including fire suppression and hydrant fixtures. The water purveyors use a water-modeling software application program for design and assessment purposes; City and District water staff also maintain the water system. Due to environmental restrictions, the water suppliers rarely flow test fire hydrants (system).

Water systems are constantly undergoing improvement, change in usage, and deterioration. As a result it is important to periodically flow test fire hydrants to determine what their capabilities would be in an emergency. Flow testing can uncover improperly operating valves, leaks and pump damaging debris in hydrants. Discovery of problems and repairs are vital before a hydrant is needed in an emergency.

Additionally, flow test data provides information necessary for water service planners and fire prevention staff can accurately estimate the capabilities of water mains. Water main and hydrant flow capabilities impact decisions on fire protection and fire resistance features that are required for new developments and priorities for upgrading older, smaller water mains.

Figure 39 is a water district and service area reference map. It displays three district boundaries (Northshore Utility, Woodinville Water, and King County Water District 1) and surrounding jurisdictions which provide water services. Service areas do not necessarily match the administrative or political boundaries of municipalities. For example, the City of Kirkland provides water service to the south part of Kirkland, City of Bellevue provides water services to Medina, Hunts Point, Clyde Hill, and part of Yarrow Point. The map label indicates generally the location of the service areas.

**Figure 39: Water District Service Areas<sup>42</sup>**



The City of Kirkland Water Division performs bi-annual inspections of all fire hydrants in the Kirkland water service area. Bi-annual hydrant inspections consist of operation of the main valve, foot valve, caps, leaks, draining and pressure. Flow testing is performed as needed to calibrate the fire flow model. Inspections of fire hydrants are not conducted by the Kirkland Water Division in the Northshore, Redmond, or Woodinville service areas which are inside of

<sup>42</sup> Source: City of Kirkland Water Department.



the City boundary. Kirkland Water Division is scheduled to begin maintenance of City fire hydrants in 2013.

A maintenance agreement with Northshore Utility specifies that all fire hydrants will be thoroughly checked bi-annually. Hydrant checks involve:

- Operation of the hydrant, checking for ease of operation, leaks, drain down
- Exercising the hydrant supply/auxiliary valve
- Logging water pressure at the hydrant
- Lubricating the upper stem section
- Checking accessibility of the hydrant trim shrubbery as needed
- Clean and paint fire hydrants, apply ID tag if needed
- Note all other deficiencies

Northshore Utility maintenance and out-of-service policies include dispatch center notification. Policies and procedures make no mention to fire flow testing for fire hydrants.

Woodinville Water's agreement for hydrant maintenance is with WFR (Woodinville Fire & Rescue). WFR hires seasonal personnel to conduct maintenance at \$3 per hydrant. Woodinville Water pays WFR \$2 and WFR contributes \$1 per hydrant check.

No reference in the Northshore Utility agreement is made for fire flow testing or how maintenance is handled for fire hydrants located in the City of Kirkland.

### **Fire Inspection**

KF&BD has established a scheduled occupancy inspection program, which calls for inspectable occupancies to be inspected annually. Reduced staffing in the FMO does not allow regular completion of this goal. The current completion rate for scheduled annual inspections has fallen to an estimated 20 percent. The KF&BD has just begun an Engine Company Inspection (ECI) program which will apply to Type B,<sup>43</sup> M,<sup>44</sup> and R2<sup>45</sup> occupancies. The FMO has considered a "self-inspection program" but has no plans to pursue or implement such a program.

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<sup>43</sup> Type B: Business where services are provided.

<sup>44</sup> Type M: Mercantile where goods are displayed and sold.

<sup>45</sup> Type R2: Providing accommodations for overnight stay such as apartments and dormitories (except institutions).

Inspection reports are recorded on paper forms, filed, and stored in hard-copy format. The FMO is awaiting implementation of a New World records management system in order to maintain these files electronically. The fire marshal notes that current staffing lacks resources to transcribe hard copy data into an RMS.

The FMO currently does not perform separate special risk inspections as a routine function; in most circumstances, special risk inspections are handled by the fire marshal in conjunction with related permits. FMO staff performs only limited inspections, attendant to storage tank installation permitting. Associated cost(s) for these activities are incorporated in the current permit fee schedule.

The KF&BD has authority to issue citations but rarely uses this enforcement tool. The fire marshal notes that compliance is typically obtained prior to the need for court action. If needed, however, the FMO citation would be sent to the City of Kirkland Municipal Court.

Code inspection service and compliance action result in different perspectives and experiences for recipients. Successful code enforcement programs usually include mechanisms for obtaining feedback on the process and human interaction. The fire marshal currently does not operate a formal community feedback system for evaluating staff activities, interactions, and performance. The FMO reacts solely to complaints registered with the City and/or its office.

#### Emergency Building Access System

When responding to automatic fire alarms in secured, unoccupied buildings, emergency response personnel need rapid access, especially when there is no external indication of an emergent situation. The KF&BD currently uses the Knox-Box® key-box entry system to facilitate emergency response and access to designated properties. The developer or the building owner purchases the security box, installs it per fire department specification, and inserts essential keys that allow emergency access to the facility. Using a fire department master key, response personnel can immediately enter the building to address the incident and minimize property damage. Rapid entry both reduces on-scene wait times and allows emergency response resources to return to service more quickly.

#### **Code Enforcement**

Effective code enforcement requires local adoption and use of the current state-adopted fire code. The State of Washington adopted the International Fire Code (2009), which the City of



Kirkland adopted and uses. The City also has adopted some minimal amendments, which serve local interests.

Within the parameters of the fire code, automatic fire sprinkler protection systems are a cost effective means to manage fire risk in multiple occupancy, large area, and certain high-risk occupancies. The City adopted a sprinkler ordinance that applies to structures greater than 5,000 square feet. This ordinance also incorporates both fire flow and fire department access (less than or equal to 150 feet) requirements. The sprinkler ordinance does not apply to residential structures smaller than 5,000 square feet.

### **Fire Cause Determination (Investigation)**

The FMO of the KF&BD maintains an active fire investigation program, which includes fire origin and cause determination, and arson investigation. The fire marshal is responsible for the program and the team includes FMO staff, operations personnel, and two police officers. The program does not provide for the handling of juvenile suspects.

The KF&BD maintains scene control after a fire incident unless and until the crime of arson is suspected or determined. At that point, scene control is transferred to the Kirkland Police Department. The FMO completes, maintains, and securely stores reports and records for all fire incidents.

An informal working relationship (mutual aid) with neighboring jurisdictions for origin and fire cause determination is maintained. The program has regularly participated in external training.

An acceptable inventory of equipment and supplies, and secure process for collecting, recording, and filing/storing evidence has an established by the FMO. Evidence is maintained in a secured area, for which a formal release is required for entry.

### **Public Education**

The fire and life-safety public education efforts of the KF&BD are significantly limited with the elimination of the single KF&BD community education specialist at the end of 2010. ESCI found that that virtually all public education efforts outside of some limited special requests have been discontinued since then.

While KF&BD is exploring alternative strategies to maintain its public education efforts, there is no clear plan in place to delineate the department's strategy, goals, and methodologies. The idea was to involve volunteers and on-duty personnel as the conduit for delivering fire

prevention information and conduct public education. ESCI recommends that a plan be developed for conveying fire prevention and community education.

Neither KF&BD nor the local school system conduct structured fire and life-safety education. The juvenile firesetter counseling program was eliminated in 2010; a result of funding priorities. KF&BD has no bi-lingual education resources; if needed, a work-around is possible using City resources. The FMO does not attempt to address wildland interface risks primarily because the risk in Kirkland is minimal.

Basic life safety services should include education and training to avoid and/or mitigate certain medical emergencies. Citizen training in the skill of cardiopulmonary resuscitation (CPR) is a common and very effective means to prepare citizens to capably respond to many cardiac arrest incidents. CPR instruction is offered to the public through the Medical Assistance Training (MAT) program and overseen by the deputy chief of operations. Funding of the program and compensation for off-duty firefighters to instruct the courses is from the King County Medic II Program. The City of Kirkland Parks Department handles the registration and the KF&BD administrative staff coordinates facilities for the classes. KF&BD also offers free blood pressure screening at each of its fire stations, which is an important and effective means to alert citizens to potential cardiovascular risks.

The FMO maintains a limited supply of fire and life safety literature, which is obtained either at no cost or through grant funding. Literature currently on hand is limited in quantity and scope; documents appear dated.

Every effort should be explored to provide for public education in the community. Employment of opportunities with other community groups and other City departments, engine company public education delivery, and leveraging passive methods of education should be explored. Other ideas involve the re-invigorated volunteer Emergency Medical Technician (EMT) program or expansion of the Fire Corps program to deliver public education.

### **Conclusion – Fire Prevention Bureau**

The City of Kirkland's process for construction permitting delivers a higher level of service than is commonly seen by involvement of the fire and building department from pre-application conference for commercial developments and continuing throughout the construction process.

KF&BD's need for pre-fire (quick access) plans of public, commercial, industrial, and assembly structures can be met by integration of software used by the building division. The RMS used by the building division would meet the needs of KF&BD for quick access plans.

KF&BD current completion rate for scheduled annual inspections of an estimated 20 percent may expose emergency services personnel and public to unacceptable risk during a fire event. The KF&BD has just begun an Engine Company Inspection (ECI) program for Type B, M, and R2 occupancies.

Fire and life-safety public education efforts of the KF&BD were limited to outside special requests that have since been discontinued. It was determined during the budget development process that a plan for delivering public education would be developed. This has yet to occur.

### **Recommendation Summary – Fire Prevention Bureau**

- ❖ Recommendation 32: Integrate KF&BD fire prevention records management with the EnerGov RMS software used by the Building Division. (Implementation Order 3)
- ❖ Recommendation 33: Conduct a fire and life-safety inspection of all inspectable occupancies in the next 12 months. If necessary use emergency services personnel to complete inspections. (Implementation Order 1)
- ❖ Recommendation 34: Develop and adopt a plan for the maintenance, repair, and flow testing of all fire hydrants in the City of Kirkland. (Implementation Order 2)
- ❖ Recommendation 35: Develop and implement a self-inspection program for light risk occupancies where the occupants have demonstrated regular code compliance. (Implementation Order 13)
- ❖ Recommendation 36: Acquire and deploy electronic tablet devices for field data entry and rapid downloading to the records management system. (Implementation Order 4)
- ❖ Recommendation 37: Develop and adopt a plan to actively solicit feedback from a representative sample of recipients of KF&BD inspection and enforcement services. (Implementation Order 10)
- ❖ Recommendation 38: Adopt a local residential sprinkler ordinance for new residential construction. (Implementation Order 5)
- ❖ Recommendation 39: Form a regional partnership to develop and deliver juvenile firesetter intervention and counseling. (Implementation Order 12)
- ❖ Recommendation 40: Develop, adopt, publish, and implement a KF&BD Public Education Plan. (Implementation Order 6)
- ❖ Recommendation 41: Form regional partnerships for the development and deployment of public fire and life safety education initiatives; also rotate operations personnel to deliver a structured curriculum. (Implementation Order 7)

- ❖ Recommendation 42: Rotate emergency operations personnel to a temporary duty assignment as a public educator to deliver the public education curriculum. (Implementation Order 11)
- ❖ Recommendation 43: Employ electronic information media from the United States Fire Administration and NFPA for linking or posting and making available on the Kirkland website. (Implementation Order 9)
- ❖ Recommendation 44: Create partnerships with other public agencies and private sector companies to provide public education and information to the citizens of Kirkland. (Implementation Order 8)

### **Fire and Emergency Medical Services (Emergency Response)**

#### **Overview of Fire and EMS Services Provided**

KF&BD provides a variety of emergency response services, including:

- Fire suppression
- Emergency Medical Services (EMS) response
- Basic Life Support (BLS) transport
- Hazardous materials emergency response
- Entrapment and other technical rescue
- Emergency management
- Specialized rescue services
  - Confined space
  - Rope (high and low angle rescue)
  - Trench collapse
  - Structural collapse
  - Vehicle/machinery
  - Surface Water

Technical rescues require specialized equipment and a group of skilled practitioners. The cost for every individual fire department to equip, train, and maintain sufficient numbers of technical rescue personnel is not cost effective. Collaboration for specialized services is an attractive alternative. KF&BD participates with other fire departments as one part of the Zone 1 regional TRT (technical rescue team) and hazardous materials consortium.



#### **Staffing and Reporting Relationships**

Based on the Kirkland Fire & Building Department organizational chart, there are three direct reports to the fire and building department director/fire chief (Figure 4, page 21): the building services manager, the administrative deputy fire chief, and the operations deputy fire chief. ESCI observed and through interviews determined that the hierarchal structure operates as

intended with the building services manager. In contrast, ESCI found that in practice the fire chief is the direct report for any number of other fire department personnel and activities.

The certified classification position of deputy fire chief has two assignment descriptions—administrative services and emergency services bureau. Assignment descriptions of the position duties are:

- **Administrative Services:** Oversees operations in the area of fire prevention, city emergency management, communication center (NORCOM), EMS transport program, and administrative support. Works under the direct supervision of the fire chief, creates and recommends policies and procedures, bureau budgets and manages personnel assigned to the administrative services bureau. Directly supervises fire marshal, emergency preparedness coordinator, emergency medical services officer (EMSO), and administrative support.
- **Emergency Services:** Oversees operations in the areas of fire suppression, emergency medical, training, hazardous materials, rescue, support team, apparatus, equipment, and facilities. Works under the direct supervision of the fire chief, creates and recommends policies and procedures, bureau budgets and manages personnel assigned to the emergency services bureau. Directly supervises battalion chiefs assigned to training and emergency services.

Deputy fire chief is the second highest position in the KF&BD. It was reported to ESCI that deputy fire chiefs routinely perform administrative, technician, and clerical tasks. Time devoted to activities outside of essential functions and principal accountabilities have reduced the deputy chiefs' availability to perform job critical administrative and supervisory duties. Three areas of particular concern are:

- Coordination of activities with other fire department work units, other City department/divisions, and other fire service agencies
- Resolving personnel issues, citizen complaints, employee accountability, and corrective action as required
- Monitoring the efficiency and effectiveness of assigned bureaus to ensure departmental performance and operating standards are being successfully achieved

Recommendations on alignment to the administrative level of the KF&BD are found in Strategic Plan Recommendations and Priorities beginning on page 229.

### **Analysis of Overtime**

Four particularly sensitive budget items are often the source of discussion among elected officials, management, and employee groups: compensation (pay), pensions, health and welfare, and overtime. As a task of this project, ESCI reviewed overtime usage in the Kirkland

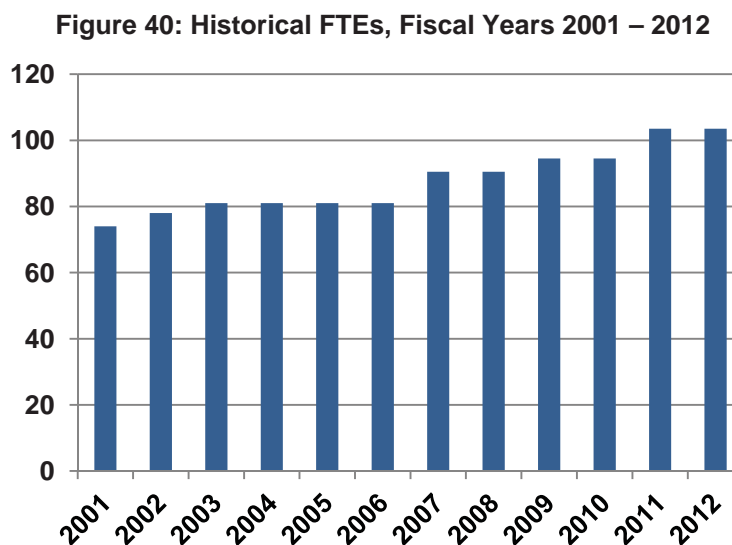
FD for any compelling reason to alter current practice or maintain the status quo. For this portion of the project, ESCI was provided with and reviewed the following documents:

- City of KF&BD, overtime data 2001 through 2012.
- KF&BD line-item budget documents for fiscal years 2008 through 2012.
- KF&BD leave time summary data 2009 through 2011.
- The IAFF agreement with the City of Kirkland, Washington, and Local 2545 of the International Association of Fire Fighters, January 1, 2008 through December 31, 2010. A one-year extension was added the agreement. That too has expired (December 31, 2011). Negotiations are ongoing at the time of this study.
- KF&BD staffing levels 2001 through 2012.

Historical and current personnel costs and financial records of the Kirkland Fire & Building Department were made available for the purpose of the project. Fire department FTEs and overtime were used for the generation of this analysis. Building division costs and FTEs were excluded from the analysis.

#### Staffing Levels and Personnel Deployment

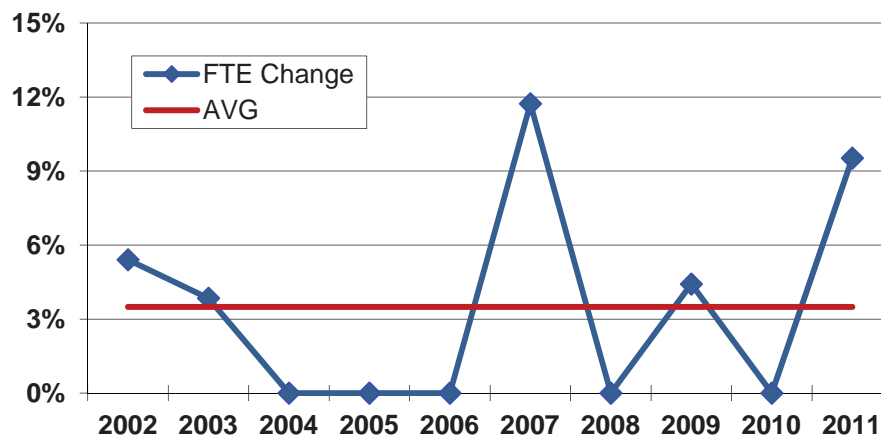
Before determining if overtime use is properly managed, a number of variables were identified. To begin, the number of FTEs for KF&BD in any given year was determined. The number of employees in the fire department has increased over the last 12 years in an effort to keep up with the growth of the City; these changes can impact the outcome of comparisons. Figure 40 is a historical presentation of the total FTEs in the fire department from 2001 through 2012.



Between 2001 and 2012 KF&BD had a high of 103.5 total fire department FTEs in fiscal year 2012 and a low of 74 FTEs in fiscal year ending in 2001.

Figure 41 illustrates the year-to-year percent of change in FTEs and the average percent of change from 2001 to 2011.

**Figure 41: Historical Percent and Average Change in FTEs, 2001 – 2011**

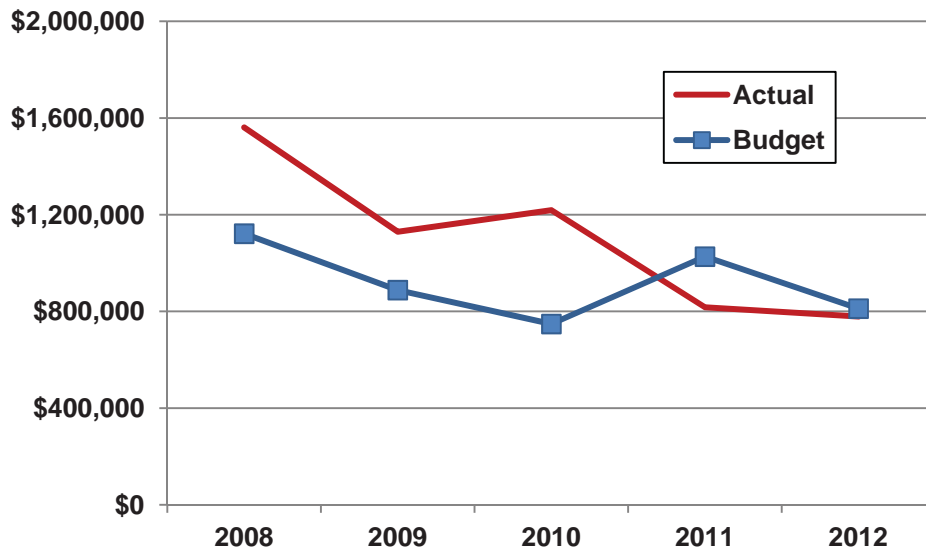


Over the ten-year period, the Kirkland FD has increased FTEs an average of 3.49 percent annually with the largest annual increase occurring between 2006 and 2007 (11.73 percent).

ESCI reviewed the amount budgeted for overtime and the actual expenditures for a five-year period. Figure 42 shows the budgeted versus actual overtime costs for the fiscal years 2008 through 2012.<sup>46</sup>

<sup>46</sup> Kirkland budget document for 2012 includes \$200,000 in overtime outside the fire department budget.

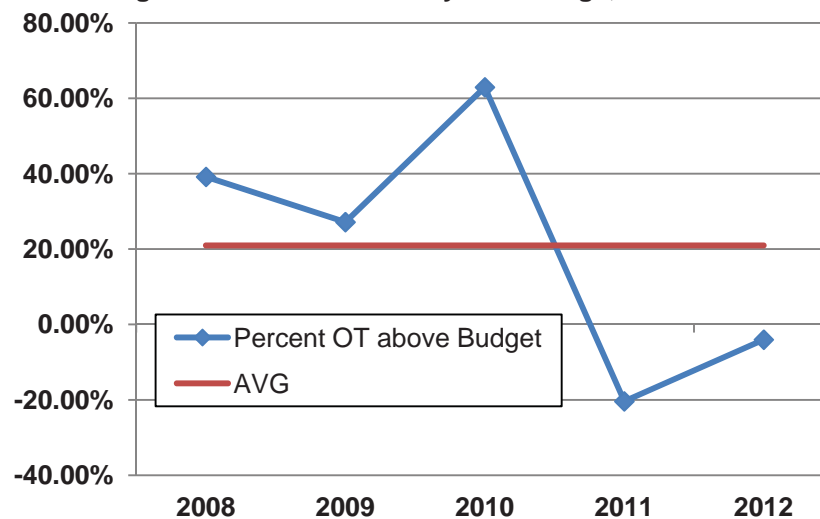


**Figure 42: Budget to Actual Overtime Cost, Fiscal Years 2008 – 2012**

Overtime costs have decreased over the five-year period. In 2009, the elimination of overtime staffing for the Finn Hill Fire Station caused a significant reduction. During the past two fiscal years, KF&BD has stayed within the budgeted overtime amount.

Overtime use is often unpredictable in the fire service by the very nature of working with emergency activities. However, statistical data can be used as the predictor of future use.

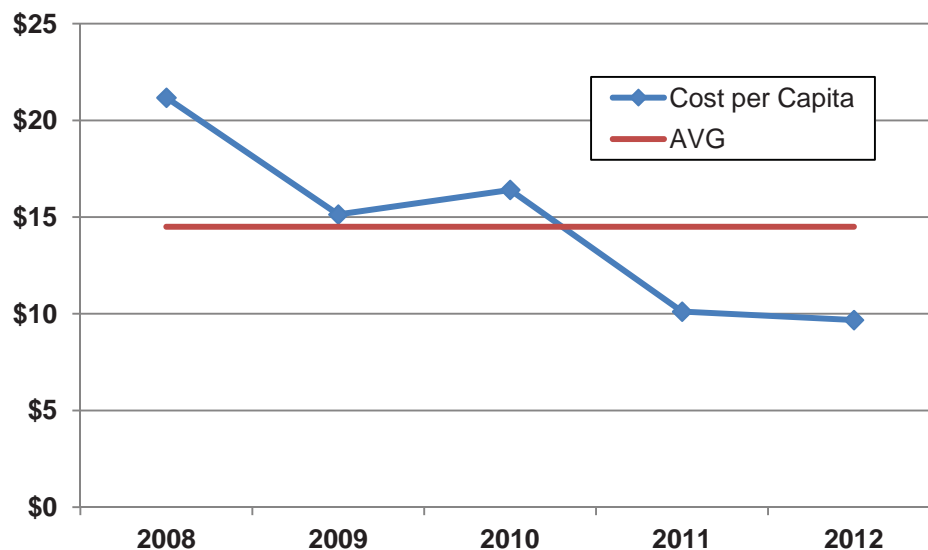
The following figure (Figure 43) illustrates the actual percentage that expenditures for overtime exceeded budgeted overtime and the average percent for the last five fiscal years except in 2011 and 2012.

**Figure 43: Budget to Actual Overtime by Percentage, Fiscal Years 2008 – 2012**

Overtime in the fiscal year ending in 2008 exceeded the budgeted amount by 39.17 percent. The highest level of overtime cost over budget was recorded in 2010 with a 62.94 percent overage. In 2011, overtime costs were below budget by 20.4 percent and in 2012 the KF&BD is on budget.

The population for the City of Kirkland and the service area has steadily increased by 8.4 percent from 2001 to 2010. In 2011, the population grew 64.24 percent over 2010 due to annexations. To gauge the impact of overtime on the community, actual overtime costs were calculated on a per capita basis for each of the last five years. Figure 44 shows the cost per capita and average for fiscal years 2008 through 2012.

**Figure 44: Annual and Average per Capita Cost of Overtime, Fiscal Years 2008 – 2012**



The cost per capita for fire department overtime has steadily declined since 2008. In 2008 overtime was \$21.17 per capita and declined to \$9.67 in the 2012 budget. The reduction in 2009 was due to the elimination of overtime staffing of the Finn Hill station and, in 2011, the reduction was due to annexation (based on the larger population base). The annual average CPI-W for the Seattle-Tacoma-Bellevue, WA metro area was 2.458 percent for the ten-year period 2002 to 2011. When the CPI-W is applied to the cost of overtime, the downward trend of overtime is greater.

Personnel services costs for the KF&BD over the most recent five-year period were examined. Between fiscal years 2008 and 2012, the personnel services expenditures for the fire department have increased approximately 28.95 percent.<sup>47</sup>

Figure 45 compares overtime expenditure as a percentage of wages for fiscal years 2008 through 2012.

**Figure 45: Overtime as a Percentage of Wages, Fiscal Years 2008 – 2012<sup>48</sup>**

Description	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Budget
Wages	7,491,763	8,373,559	8,443,331	9,012,488	9,660,589
Overtime Dollars	1,554,425	1,128,720	1,212,232	810,879	773,858
Percent of Overtime	20.75%	13.48%	14.36%	9.00%	8.01%

The above table shows a significant decrease in the percent of overtime spent compared to wages in 2011 and budgeted for 2012. This is primarily from a reduction of minimum staffing to 19 and source re-allocation of personnel.

### Deployment

KF&BD operates six fire stations (five with career staffing) with 12 frontline units and has established a minimum daily staffing level of 19 personnel.<sup>49</sup> KF&BD *Department Manual Directive Number 3.001* dated February 1, 2000, states that the minimum staffing shall be 15 with 1 being an officer and 14 firefighters. This directive needs to be updated to current minimum staffing levels. Figure 38 lists minimum staffing by unit and position in January 2012.

<sup>47</sup> Revenue offsets were not included in the calculation.

<sup>48</sup> Does not include Inspection cost center.

<sup>49</sup> Source: Minimum staffing design as compared to total staff assigned per shift, 02/15/2012.

**Figure 46: Minimum Staffing by Unit and Position, January 2012**

Unit	Battalion Chief	Officer (Captain or Lieutenant)	Driver Operator	Firefighter
Engine 21		1	1	1
Engine 22		1	1	1
Engine 25		1	1	1
Engine 26		1	1	1
Engine 27		1	1	1
Aid 21		Cross-staffed with Engine 21		
Aid 22		Cross-staffed with Engine 22		
Aid 25		Cross-staffed with Engine 25		
Aid 26		Cross-staffed with Engine 26		
Aid 27		Cross-staffed with Engine 27		
Aid 29		Cross-staffed with Ladder 27		
Air Unit 21		Cross-staffed with Engine 22		
Ladder 27		1	1	1
Battalion Chief	1			
Shift Captain (Swing Position)		1		
<b>Total</b>	<b>1</b>	<b>6</b>	<b>6</b>	<b>6</b>

A total of 30 personnel are assigned to each shift with minimum staffing set at 19. In the minimum staffing matrix, the swing staff position is not identified.

Based on the rank and number of positions required to meet minimum staffing there are a given number of shifts to fill per year. The table below summarizes the number of shifts to be filled based on minimum staffing.<sup>50</sup>

**Figure 47: Number of Shifts per Year, Minimum Staffing**

	Battalion Chief	Officer	Driver-Operator	Firefighter EMT	Total
Minimum Staffing	1	6	6	6	19
Days per Shift	122	122	122	122	122
No. of Shifts times	122	732	732	732	2,318
Minimum Staffing					
<b>Total Requirement</b>	<b>366</b>	<b>2,196</b>	<b>2,196</b>	<b>2,196</b>	<b>6,954</b>

There are a total of 6,954 shifts to be filled to meet minimum staffing.

<sup>50</sup> Calculations on shifts per year are all based on a 366 day year.

KF&BD is authorized for 90 FTE emergency operations personnel. The personnel roster lists a total of 88 FTEs with one position vacant on A shift and one position vacant on B shift.<sup>51</sup> Figure 48 shows a breakdown of the number of authorized positions by rank (30 per shift).<sup>52</sup>

**Figure 48: Number of Authorized Positions by Shift**

	A Shift	B Shift	C Shift	Total
Battalion Chief	1	1	1	3
Captain	4	3	3	10
Lieutenant	3	4	4	11
Firefighter	22	22	22	66
Firefighter/EMT				
<b>Total Authorized</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>90</b>

During the course of this work KF&BD hired three personnel that were scheduled to complete recruit training and be sworn in to the department on Friday, June 22, 2012. Two of the positions are for the current vacancies and the third for a recent retirement. The new hires bring the department up to full staffing.

Figure 49 shows the annual number of scheduled shifts for the 90 authorized emergency services positions for the KF&BD.

**Figure 49: Number of Scheduled Shifts by Position per Year**

	Battalion Chief	Captain	Lieutenant	Firefighter EMT	Total
Positions	3	10	11	66	
Shifts per Position	122	122	122	122	
<b>Total Shifts</b>	<b>366</b>	<b>1,220</b>	<b>1,342</b>	<b>8,052</b>	<b>10,980</b>

A gross total of 10,980 scheduled shifts are available compared to 6,954 required to be filled at minimum staffing; a net difference of 4,026 shifts. However, Kelly, vacation, sick and injury, holiday, and other leaves obviously reduce the number of available shifts for personnel to work (net shifts available).

<sup>51</sup> During the course of this work three personnel were hired and completed recruit training Friday, June 22, 2012 to fill two vacancies and one retirement.

<sup>52</sup> Leave calculations based 90 FTEs.

### Scheduled and Unscheduled Leave

The number of hours an employee has for vacation is based on the years of completed service with the City of Kirkland.<sup>53</sup> The following accrual rates were effective through December 31, 2010:

- 1<sup>st</sup> – 2<sup>nd</sup> year, 10 hours monthly, annual 120 hours
- 3<sup>rd</sup> – 5<sup>th</sup> year, 12 hours monthly, annual 144 hours
- 6<sup>th</sup> – 9<sup>th</sup> year, 15 hours monthly, annual 180 hours
- 10<sup>th</sup> – 13<sup>th</sup> year, 19 hours monthly, annual 228 hours
- 14<sup>th</sup> – 17<sup>th</sup> year, 20.5 hours monthly, annual 246 hours
- 18<sup>th</sup> – 21<sup>st</sup> year, 22.5 hours monthly, annual 270 hours
- 22<sup>nd</sup> – 24<sup>th</sup> year, 23.5 hours monthly, annual 282 hours
- 25<sup>th</sup> year or more, 24 hours monthly, annual 288 hours

The 14 to 17 years of service range was used as a median point, the number of accrued vacation hours is 246 per employee per year. The result is 10.25 shifts of vacation per employee and a total of 922.5 shifts. Actual vacation leave used by employees varies with employees having the ability to bank and carryover up to 300 hours.

The amount of sick, injury, and leave categorized as other used by fire department personnel varies by employee. Typically, sick leave use (excludes injury and other leave) in fire departments of similar size and character averages between 2.5 to 4.0 shifts per year. For this exercise, ESCI used the three-year KF&BD average of 9.65 shifts per year per employee to arrive at a total of 868 annual shifts of sick leave.<sup>54</sup> Sick leave accrual at KF&BD is currently not on a “use-it-or-lose-it” plan. The balance carries over from year to year and is cumulative to a maximum of 1,440 hours.

Figure 50 uses the total annual available shifts and deducts those required for minimum staffing, vacation leave, holiday, sick and injury, training, and other leaves (court and jury and bereavement) to arrive at the number of unallocated shifts. In addition to vacation, sick, and injury hours, 48 hours for training and other leave per year per employee were included.

- Vacation includes: emergency leave, family medical leave-vacation, vacation annual, and vacation routine.

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<sup>53</sup> The IAFF agreement with the City of Kirkland, Washington, and Local 2545 of the International Association of Fire Fighters, January 1, 2008, through December 31, 2010.

<sup>54</sup> ESCI's experience is that the number of sick leave shifts will generally be less than 4.0 shifts per employee per year. Average sick leave use is 2.5 shifts.

- Sick and injury includes: dependent leave, family medical leave-sick, on-duty injury, disability off-duty, sick family member LEOFF 2, sick leave LEOFF 1, and sick leave LEOFF 2.
- Training and other leave includes: bereavement leave, community service leave, family medical leave, furlough annual, furlough routine, jury duty, military leave, on-duty department business, physical fitness leave annual and routine, union leave, and wellness/fitness leave.
- Holiday includes: family medical leave-holiday, holiday annual, and holiday routine.

**Figure 50: Number of Shifts Available Less Minimum Staffing and Leaves per Year**

<b>Gross Number of Shifts</b>	<b>10,980</b>
<b>Less Leave Time</b>	
Minimum Staffing	6,954
Vacation	923
Sick and Injury	869
Training and Other Leaves	360
Kelly Day	1,530
Holiday	450
<b>Unallocated Balance</b>	<b>(106)</b>

Assuming an average of 10.25 shifts of vacation, 9.65 shifts of sick and injury leave, 4.0 shifts for training and other leave, 17.0 Kelly, and 5.0 holidays per employee, a total of 106 shifts need to be filled to meet minimum staffing. Because there are more vacancies than available shifts above minimum staffing, KF&BD will frequently need to hire back firefighters on overtime. A complication of filling vacancies is the need to match available personnel with like rank and certification.

#### Step-Up (Acting Officer)

KF&BD promoted a lieutenant to captain in 2011 and assigned one captain per shift to fill vacancies in an effort to reduce the number and cost of overtime shifts replacing officers. It was reported to ESCI that the promotions and the availability of three officers have made a reduction in the number of overtime shifts for lieutenants, captains, and battalion chiefs. This was accomplished without increasing the number of FTEs in emergency services.

There are reasons why the given number of unallocated shifts would be inadequate to fill all instances a vacancy occurs. They include:

- Imbalance between the personnel of a given rank, on a given shift (A, B, and C) on leave and total qualified individuals available to fill the vacancy.
- Imbalance in vacation scheduling with more personnel than available to fill vacancies in a given rank or qualification.

- Abnormally large number or uneven distribution of sick and injury or other unplanned leaves.
- Insufficient number of qualified personnel to step-up.

Providing personnel with the requisite knowledge, skills, and abilities to accept responsibilities provides an experience that is a valuable tool in preparing for promotion. It is also acceptable to have individuals at the captain and lieutenant ranks work down to fill firefighter vacancies. Utilizing this approach could create pay issues with the workforce i.e. does an officer working down keep their same pay level or that of the lower paid position.

#### Alternative Scheduling Methodologies and Overtime Usage

Firefighters' work schedules depend on individual fire department need or agreement (memo of understanding, meet and confer, or collective bargaining agreement) between the agency and labor. Firefighter schedules vary from 72 hours on duty and 96 hours off (e.g., CAL FIRE), to 48 hours on duty and 96 hours off, to the more traditional 24 hours on duty and 48 hours off. Other departments have firefighters that work two 10-hour day shifts and two 14-hour overnight shifts in a seven-day schedule. With the exception of some very large fire agencies, the majority have either a 24 or 48-hour work shift with alternating day(s) off-duty. Larger departments may have a number of their firefighters on alternative schedules to align staffing to workload; an example is the staffing of PAUs (peak activity unit).

It has been argued that the 10-hour day and 14-hour overnight shift would allow firefighters to be more productive. To the contrary, whenever possible fire department management elects to have 24-hour shifts to cut down on overtime pay by limiting the chance fire personnel will work late due to emergency calls. For every scheduling scheme, there are many variations.

For fire departments, there are work rules that apply specifically to firefighters that allow for special work periods. Provisions in the Fair Labor Standards Act (FLSA) state that:

*Public-sector (government) fire departments may establish special "7(k) work periods" for sworn firefighters, which can increase the FLSA overtime "thresholds" beyond the normal 40 hour week. Firefighters covered by these special work periods are entitled to FLSA overtime only for hours worked in excess of a threshold set by the Department of Labor on a chart. For example, in a 28 day work period, fire fighters would be entitled to FLSA overtime only for hours actually worked over 212 during that 28 day period (in essence, a 53 hour work week). "7(k)" refers to the section of the FLSA in which these special rules are contained, 29 USC §207(k). Most fire fighters who work "platoon schedules"*



*will be classified by their employers as "7(k) eligible" and compensated accordingly.<sup>55</sup>*

The City of Kirkland has established a 21-day, 168-hour FLSA period.<sup>56</sup> KF&BD operational firefighters' normal duty period is two 24-hour shifts followed by 96 hours off. In the absence of an FLSA work period, maintaining current staffing can significantly increase overtime costs. The City of Kirkland has through the collective bargaining process agreed that emergency services personnel of the KF&BD be compensated overtime for all time worked above scheduled hours. To mitigate the impact of overtime costs, Kirkland maintains a number of personnel above minimum staffing levels to fill vacancies.

What does this all mean? Under the FLSA, firefighters can work more than 40-hours per week and will only receive overtime for those hours that are either outside of the established work period, or if more restrictive, for those hours beyond scheduled work hours.

To maintain a minimum staffing level of 19 fire and EMS on-duty personnel and fill vacancies for vacation, sick leave, sick-injury, training, military leave, jury duty, Kelly relief, or any number of other ancillary issues, supplementary staff is needed to maintain the minimum staffing level. Given that many of the vacancies are unpredictable, KF&BD has essentially two options to maintain minimum staffing: hire back replacements from off-duty personnel on overtime or have additional personnel assigned to each shift. KF&BD has chosen the latter and has staffed 30 personnel per shift. Ideally this would allow up to 11 employees (approximately 33 percent) being off duty without hiring back at overtime.

What is the cost of the two options? It would seem that having a set number of extra firefighters on each shift would have the least financial impact. A caveat to maintaining personnel above minimum staffing is that they need to be filling vacancies or any potential cost avoidance is lost. This is a consequence of not paying supplementary fringe benefits costs when hiring off-duty personnel to fill vacancies. Fringe benefit costs of personnel have increased, eliminating most cost savings that may be realized by hiring new employees versus using overtime.

The question then becomes is KF&BD properly managing discretionary overtime? KF&BD has reduced the percentage of dollars expended on fire personnel overtime; however, it still

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<sup>55</sup> Source: 29 U.S.C. §207(k).

<sup>56</sup> Note: An FLSA work schedule can be made more restrictive with a collective bargaining agreement that requires overtime for any hours worked exceeding that which is regularly scheduled, even though FLSA only requires overtime beyond the maximum hours in the cycle.

represents a significant portion of the personnel services budget. KF&BD emergency services personnel schedule vacation to achieve the maximum benefit from staffing above the minimum of 19 personnel per work day.

#### Vacation Leave

With an authorized operational staff of 90, there are 923 vacancies for vacation leave (see Figure 50) per year. Distribution of vacation leave over a year results in approximately 2.52 personnel off each day. With 11 personnel per shift above minimum staffing, three personnel on vacation leave gives the department a buffer of 8.5 for covering unanticipated vacancies, Kelly relief, training, sick, and injury leaves.

#### Kelly Day

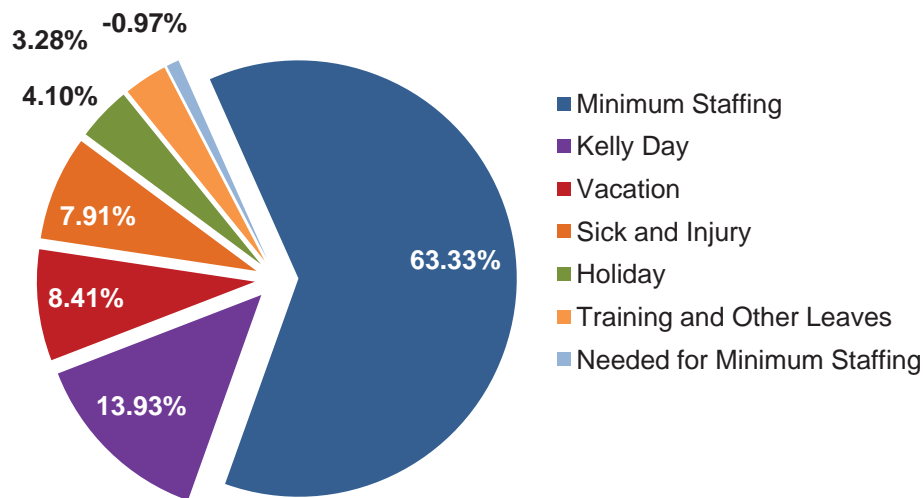
The workweek for emergency operations (line personnel) is 48 hours per week on an average annual basis. Until January 1, 2010, the work schedule for bargaining unit line personnel was scheduled in 24-hour shifts. Employees would normally work one 24-hour shift followed by 48 hours off. This was accomplished by providing one Kelly shift (day) off after every six scheduled shifts, prescheduled on an annual basis; Kelly shifts are selected beginning with the employee with the greatest seniority annually.

Effective January 1, 2010, the work schedule for bargaining unit emergency operations personnel was modified to two consecutive 24-hour shifts (48-hour “set”). Emergency operational employees work period is now normally two 24-hour shifts followed by 96 hours off. The workweek remains at 48 hours per week on an average annual basis. This is accomplished by providing two Kelly shifts off after every six scheduled sets. There are approximately 17 Kelly Days per year per employee. With 90 emergency operational FTEs there are 1,530 Kelly shift vacancies.

#### Holiday Leave

KF&BD personnel on the 24-hour shift schedule receive 120 hours off in lieu of holidays; since the fire service is a 365 days per year operation equal to five shifts per employee. Holiday time is credited to employees on January 1 of each calendar year.

The following figure shows a breakdown of the annual gross available operational shifts, leaves and unallocated shifts by percentage.

**Figure 51: Percentage of Unallocated Shifts Less Minimum Staffing, and Leaves per Year**

Annually there are 10,980 available shifts with 90 operations FTEs, 63.33 percent are needed to meet minimum staffing, 37.63 percent for leaves, leaving (0.97) percent (106 shifts) required to meet minimum staffing. Ideally there would be enough unallocated shifts to eliminate overtime. With unanticipated short and long-term disabilities, sick leave, Kelly leave, and vacation not being distributed evenly, there are instances when it is necessary to hire back personnel to meet minimum staffing levels. Likewise there are shifts with staffing above minimum levels.

Given the number of FTEs dedicated to emergency operations, a minimum staffing of 19 per day, 30 personnel assigned to each shift, scheduled vacation, and a limit to the number of people allowed on vacation, KF&BD's use of overtime is appropriate. The recent change of promoting officers has had an impact on reducing the number of overtime shifts. Company officers generally have more vacation leave and a higher salary. Having more than minimum staffing for officers has had the desired effect of helping to reduce and off-set some of KF&BD's overtime costs.

Another option employed by a limited number of fire departments is the addition of a D shift. D shift is made up of personnel that work by filling vacancies on A, B, or C shifts. Personnel assigned to a D shift select from available vacancies on the shifts they would like to work in a given time period. They would still work a minimum number of shifts and receive overtime opportunities, but they have the latitude to consolidate or spread out their work schedule to meet personal needs. There is a great deal of flexibility with scheduling for the department and the individual.

A portion of overtime costs are variable and unpredictable. Scheduled leaves can often be filled from the capacity above minimum staffing on each shift. Illness, work-related injuries, family emergencies, and other unscheduled leaves often result in overtime. While it was not the intent of this study to review the aspects of leave usage, it is appropriate that this be conducted regularly. For example: Is sick leave usage increasing? Is sick leave related to long-term illnesses? What is the annual sick leave use per employee? Can sick leave use be reduced by modifying the leave accrual policy?<sup>57</sup>

Additional questions can be asked about work-related injuries. ESCI recommends that KF&BD investigate the source(s) of time loss from illness and work-related injuries. An analysis of causes by source and employee group would help to determine what modifications could be made to continue the trend of reducing overtime use at the KF&BD.

KF&BD has made the investment to purchase an employee staffing program (TeleStaff). With full implementation and proper monitoring of the software program benefits include:

- Receive and respond to scheduling notifications and other work communications by telephone, cell, pager, e-mail, Internet, and PC
- Check schedules and find out where they are working through self-service access points such as telephone, cell, Internet, or PC
- Sign-up for overtime
- Sign-up for special duty assignments
- Request time-off and leave
- Conduct shift trades
- Review payroll data and accrual balances
- Personally update profile based on security

Command staff can:

- Automatically align staffing demands with employee availability, qualifications, and regulatory constraints
- Generate and send schedule-driven notifications and communications to a telephone, cell, pager, or e-mail, automatically linking work assignment information for employee response base on your rules and guidelines
- Create and maintain an unlimited number of schedules supporting multiple shifts, rotating positions, future assignments and promotions

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<sup>57</sup> The IAFF agreement addresses the use of sick leave by allowing for the accrual of up to 1,440 hours (60 shifts) for shift personnel.

- Manage daily operations with real-time rosters that track regular duty, special duty assignments, training, off-duty detail, and emergency deployments
- Manage time-off requests
- Monitor staffing levels
- Automatically alert management by way of real-time alarms when staffing levels fall below pre-determined requirements
- Find replacement personnel who are off-duty, can be held over, are not fatigued, or have signed-up for overtime work
- Track training and certifications
- Deploy personnel for emergency recall or mutual aid
- Account for, locate, and contact all staff at any given time
- Finalize pay sheets for payroll
- Ensure policy enforcement and Collective Bargaining Agreement compliance
- Run reports for greater insight into operations

KF&BD has not installed all of the functions available with TeleStaff software. Functions that the program is capable of managing automatically are being accomplished manually. ESCI recommends that the KF&BD use all of the functionality available with TeleStaff, including:

- Vacation scheduling
- Managing time off and leave requests
- Overtime replacement notification
- Compiling work hours summary for payroll input
- Employee certification records
- Input tool for response reports (requires an interface with NORCOM CAD)

### Options for Staffing

The traditional model of static deployment of fire and EMS resources is changing. Several reasons often mentioned are an increased reliance on the fire department for EMS and improvements in construction methods (building and fire codes and the greater use of automatic fire sprinklers). One fire department has deployed cars driven by one paramedic that responds to medical emergencies in conjunction with an EMS transport unit. In May and June 2010, 400 or so calls were handled that otherwise would have required a four-person engine or truck. Several emergency service agencies are looking to experiment with paramedics on motorcycles in the future. Evaluating alternative staffing methods including the staffing of aid units with two personnel is recommended.

**EMS (Emergency Medical Services)**

The provision of Emergency Medical Services (EMS) has come to be the predominant service offered by many fire departments to their communities. It is common to find that 70 percent to 80 percent of emergency responses are to medical emergencies, as is the case in the City of Kirkland. Essential to the effective delivery of EMS services is quality system management: support and oversight, including the key components of logistical support, medical control, and quality assurance; and appropriate credentialing of personnel.

EMS is essentially an organized system that provides personnel, facilities, and equipment for the coordinated delivery of emergency medical services within a geographical area. An effective EMS system may involve multiple different agencies and organizations working together to provide rapid response, treatment, and transport to those in need of immediate medical attention. Generally, most EMS systems include at least system access and dispatch components, first response, ambulance transport, and definitive hospital care. Many people view EMS as simply ambulance transport or fire department response to medical events. However, those views are being challenged as insurance companies demand more accountability for ambulance transport and emergency treatment. EMS agencies are challenged to incorporate evidence-based medicine and seek better use of resources to extend services to the communities they serve.

EMS systems should have measures in place to determine the effectiveness and performance of both personnel and procedures. Standardized performance levels allow system regulators to not only evaluate performance but also to take steps to improve performance and quantify those improvements.

**KF&BD EMS Response Overview**

KF&BD maintains a fleet of six frontline aid units which are BLS (basic life support) transport-capable ambulances. Personnel are trained to the BLS level, able to provide initial treatment to EMS patients and transport them to a hospital if their condition does not require ALS (Advanced Life Support) intervention. In instances that necessitate a higher level of patient care, ALS-capable EMS units are dispatched to provide paramedic level treatment. The City of Kirkland receives ALS from Medic One. The City of Redmond has a contract to operate three Medic One ambulances that serve Redmond, Kirkland, and some surrounding unincorporated areas.

EMS responses in Kirkland constituted 75.27 percent of total incidents to which the department responded in the study period from September 2010 through August 2011. The number of EMS

responses totaled just over 5,000, with 68.08 percent classified as BLS and 31.92 percent classified as ALS.

### EMS Authority and Regulation

Statutory authority for the delivery of EMS in Washington is under the Washington State Department of Health (WADOH). WADOH promulgates regulations for EMS with the King County EMS Division having responsibility for local oversight. KF&BD's EMS activities are subject to the rules of the County EMS Division, including the certification and training of EMTs and paramedics.

The KF&BD program maintains the appropriate certifications and state authorization to provide EMS services. Medical oversight and direction of patient treatment is provided by a local physician experienced in emergency medicine and EMS. The physician advisor and department EMS staff have enacted appropriate training and skills development practices internally, based on their responder's certification levels. EMS program oversight for KF&BD is assigned to an operational battalion chief.

In 2011, KF&BD appointed a captain to the position of EMSO (emergency medical services officer) coordinator. The EMSO coordinator is responsible for running the EMS transport fee program. Funding for the EMSO is being offset with revenue from BLS transports billings. KF&BD began billing for EMS transport services in March 2011. (For a history of transport revenue see Figure 6: KF&BD EMS Transportation Revenue, March 2011 – January 2012.)

### EMS Deployment Methodology

The KF&BD aid units are staffed by firefighters who are also certified in providing BLS. KF&BD's deployment methodology has firefighter/EMTs cross-staffing fire suppression and aid units. Personnel respond based on the emergency type, taking a fire engine to a fire event and responding to EMS incidents with an aid unit. Ladder Truck No. 27 firefighters also cross-staff an aid unit (Aid 29).

Staffing for stations consists of three personnel who may respond with either a fire vehicle or aid unit. When a crew is dispatched to an EMS event, all three of the assigned personnel respond. Doing so maximizes the patient treatment capacity. Regionally and nationally it is common for EMS units to be staffed with two medically trained personnel.



Although the staffing methodology is advantageous for some EMS incidents, it has a negative impact on fire response capacity. With all three personnel responding in an aid unit, the engine or ladder truck in the station is no longer staffed and available for dispatch. ESCI reviewed the practice and finds that the importance of retaining a fire unit's ability to respond to a call, even with only one person, outweighs that of having three personnel on an aid unit.

A single-person response with a fire engine is not optimal and is not effective at a fire scene. However, in many instances, the two EMS responders on an aid unit may be able to meet the fire apparatus at an incident scene and fill out a three-person crew. Similar approaches are found in other fire departments and ESCI recommends that KF&BD discontinue the deployment practice of sending three personnel to an EMS incident in consideration of maintaining immediately available resources. Options include keeping the third firefighter/EMT available for secondary incidents, redeployment with dedicated staffing of two-person aid units, or single person quick response unit for low priority EMS incidents.

#### EMS Performance Measures

To track the quality and effectiveness of emergency medical service systems departments monitor the survival rates of cardiac arrest patients treated. Response times are often misused or misinterpreted as they are only a crude measure of the system. Clinical outcomes such as cardiac arrest survival rates are a more accurate indicator of performance. Response time for first responder BLS units could demonstrate if data correlates response time to cardiac arrest survival. Although total cardiac arrest survival rate is often referred to as a quality indicator, EMS professionals routinely use witnessed ventricular fibrillation (VF) survival rates as a standard.

KF&BD should develop a comprehensive evaluation program to assess all aspects of the EMS system. This program would include evaluation of structural, process, and outcome measures. In addition to survival rates, outcomes such as disease, disability, discomfort, dissatisfaction, and impoverishment could be used to evaluate the system.

#### Medic One Funding

An EMS levy in Washington may be imposed by a county, EMS district, city or town, public hospital district, urban EMS district, regional fire protection service authority, or fire protection district. For a countywide EMS levy to be placed on the ballot, it requires approval of any city in the county with a population exceeding 50,000. An EMS levy may be an amount equal to \$0.50 or less per \$1,000 assessed value. Any taxes collected as a result of the EMS levy can only be



used to provide emergency medical care or emergency medical services. The EMS levy tax may be imposed for:

- Six consecutive years,
- Ten consecutive years, or
- Permanently

King County EMS is funded by a countywide EMS levy, in partnership with local jurisdictions, to provide pre-hospital medical care. The EMS levy:

- Serves more than 1.9 million people in King County in an area of over 2,100 square miles.
- Has a six-year EMS levy that expires December 31, 2013.
- Provides approximately \$66 million in annual funding.
- ALS: Approximately 62 percent (\$41 million) of expenditures is dedicated to ALS:
  - Zone 3 (South King County) – ALS is provided directly by King County EMS.
  - Zone 1 – ALS is by contractual arrangement with Bellevue, Redmond, and Shoreline Fire Departments.
  - Zone 5 – City of Seattle, ALS is provided by Seattle Fire Department. Seattle and King County have executed an interlocal agreement for King County to return all EMS property tax revenue collected in Seattle to the City of Seattle in exchange for Seattle Fire Department delivering EMS. EMS property tax revenue in Seattle results in approximately \$40 million annually
- BLS: Approximately 24 percent (\$16 million) of expenditures is in the form of direct payments to 29 partner service providers to support BLS service throughout the county. Kirkland currently receives approximately \$850,000 annually.
- Regional Services: Approximately 14 percent (\$9 million) of expenditures is directed to regional services and initiatives, including:
  - Strategic initiatives (\$750,000)
  - Training (\$1.3 million)
  - Growth management initiatives (\$1.0 million)
  - Regional medical direction and quality improvement (\$1.5 million)
  - Data management (\$1.0 million)
  - Administration (\$2.7 million)

### EMS Service Levels and Delivery Alternatives

KF&BD provides BLS EMS and transport inside of Kirkland and in some instances to neighboring fire departments and districts. The majority of medical incidents to which the department responds are in the BLS category and KF&BD personnel are certified to treat and transport these patients to a hospital for definite medical care. However, nearly a third of the

medical emergencies (calculated at 31.92 percent for the one-year study period) are of a more emergent nature, requiring ALS paramedic level care. For these emergencies, KF&BD personnel serve in a first response capacity as one component of a tiered response, initiating care and treatment while an ALS unit from the City of Redmond's Medic One service responds to the scene.

The King County Medic One program is nationally renowned for its tiered response approach to EMS incidents: citizen intervention, response by BLS fire department personnel, and paramedic level response for acutely ill or injured patients. The City of Redmond participates in the Medic One program by contracting to provide ALS services.

KF&BD's approach of providing BLS EMS service in a tiered response with Medic One resources is appropriate and effective. However, there are shortcomings that warrant review and consideration. Under the current system, Kirkland is able to exercise little control or influence on the availability of EMS response resources provided to Kirkland by Medic One (Redmond Fire Department). Three Medic One units serve Redmond, Kirkland, and the unincorporated area with one unit assigned to Evergreen Hospital to serve Kirkland. The Medic One unit at Evergreen Hospital is routinely dispatched to calls for service outside of Kirkland. When the other two Medic One units are committed to incidents, one may not be readily available for immediate response in Kirkland.

KF&BD can establish a contractual arrangement with King County Medic One, similar to that which is in place in Redmond. ESCI finds that exploring the alternative has merit and recommends that Kirkland analyze the feasibility of providing ALS response services for Medic One.

Potential benefits of KF&BD delivering ALS response services for Medic One in conjunction with BLS include:

- Continuous care from initial patient contact to delivery at a medical facility
- Earlier ALS intervention
- Kirkland residents are served by KF&BD
- Improved staffing
- Reduction in on-scene time

*Community Medical Technician (CMT)*

In February 2012, Public Health — Seattle & King County's Emergency Medical Services began a Community Medical Technician (CMT) pilot program. The CMT program utilizes firefighting personnel to serve as a single-person response unit that can be dispatched to patients requesting assistance through the 9-1-1 system, but who may not necessarily need full emergency medical response.

King County Public Health recognized that all medical situations do not necessarily meet the present criteria in sending a typically full medical response by fire departments. Fire department apparatus and personnel are often sent to patients experiencing minor medical conditions, and under present criteria and protocol, a fire engine and/or aid unit must be sent to answer the call. Once fire department units respond, they are unavailable to respond to other more severe and emergent situations.

A CMT unit is staffed with one firefighter/EMT that is dispatched to less-severe patients, and the firefighter/EMT can spend more time discussing the patient's non-emergent medical or other social needs. ESCI recommends that KF&BD participate in the CMT program.

## Facilities and Equipment

KF&BD has six fire stations, five staffed with career personnel and a smaller community station with a BLS EMS unit staffed in the evenings by volunteers. The department has established a facility systems replacement plan funded using a “sinking fund”, setting aside funds annually toward anticipated component replacement from the operating budget. A CIP (Capital



Improvement Program) has a significant effect on the image and operation of a city and its capital assets. Policies should be designed to help ensure that current and future assets/projects are maintained at a high level and that capital projects do not restrict the city's financial ability to provide basic services. A city must preserve its current physical asset inventory and plan in an orderly manner for future capital investments, including the operating costs associated with those projects.

Kirkland's CIP for a six-year (2011 – 2016) planning period is updated annually and includes vehicle replacements over \$50,000. The CIP lays out a schedule for the replacement of components and maintenance of facilities: gutters, HVAC (heating, ventilation and air conditioning) systems, carpet, roofing, paint (interior and exterior), lighting, utility components and other parts of structures subject to break-down and wear. A schedule of component maintenance and replacement for all City facilities and apparatus is staggered over the life of the plan.

The fire department actively participates in the development of the City of Kirkland CIP. City departments submitting proposed capital improvement projects initially prioritize them according to need and identify work program goals and availability of funding. Proposed projects are then submitted to the city executive staff for review and prioritization, based on need and funding availability. Projects with specific, identified funding sources (e.g., grants, redevelopment funds, etc.) usually receive high priority. Conversely, those projects without identified funding sources must compete for the limited amount of general fund dollars available.

Development of an internal plan for the maintenance and replacement of facilities, apparatus, and capital equipment for KF&BD that aligns with the City CIP is considered appropriate and fiscally prudent.

### Facilities

Fire stations need to be designed to adequately house equipment and apparatus, as well as meet the needs of the organization, its workers, and/or its members. Consideration should be given to a fire station's ability to support the department's mission as it exists today and in the future. The activities that take place within the fire station should be closely examined to ensure the structure be adequate in both size and function. Examples of these functions include:

- The housing and cleaning of apparatus and equipment
- Residential living space for on-duty crew members (male and female)
- Administrative or management office(s)
- Training, classroom, and library areas
- Firefighter fitness area

While this list may seem elementary, the lack of dedicated space compromises the ability of the facility to support all of these functions and can detract from its primary purpose.

KF&BD's administrative offices are located at 123 5th Avenue, in a combined city hall, police and fire headquarters building. The following provides a summary of each KF&BD fire station, its condition, year built, general appearance, square footage, and living and safety amenities.

### Fire Station No. 21

Fire Station No. 21 (Forbes Creek) is a wood framed structure built in 1997. The building has been seismically upgraded, has auxiliary power, is well maintained, and is considered to be in very good condition. It has three apparatus bays, a workout room, kitchen, lockers, gender specific showers and restrooms. Features of the building include monitored smoke detection, keyed locks with keypads, and a positive pressure apparatus exhaust extraction system. A small community room with isolated access is available to the public. KF&BD staff at City hall is responsible for scheduling room use. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

One engine and aid unit staffed by three personnel per day is assigned to this fire station. Because of the station's location it is the second due station to many emergency incidents. The

station has a radiant heating system in the truck bays but lacks an auto shut-off interconnect. If bay doors are inadvertently left open, the radiant heater operates continuously in an attempt to keep the apparatus bay warm. Additionally, light switches lack timers or motion sensors, increasing energy consumption.

#### Fire Station No. 22

Fire Station No. 22 (Houghton) is a reinforced brick, masonry building, and has had two tenant improvements since construction in 1980. The building has been seismically upgraded, has auxiliary power, and is considered to be in good condition. There are three back-in truck bays, individual bedrooms (versus dormitory style sleeping quarters), an exercise room, kitchen, and gender-specific lockers and showers. Features of the building include monitored smoke detection, keyed locks with keypads, and a positive pressure apparatus exhaust extraction system. A small community room with isolated access is available to the public. City hall is responsible for scheduling room use. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

The station is a mirror image of Fire Station No. 27, minus one large drive-through apparatus bay. Daily staffing of the one engine, one aid unit, and one air/rehabilitation unit is by three assigned personnel per day. Fire Station No. 22 has the largest service area and is KF&BD's second busiest (call volume) of the six fire stations. There are 26 spaces available for the public meeting room parking.

#### Fire Station No. 24

Fire Station No. 24 (Finn Hill North) is a wood frame structure designed as a deep, two-story facility to fit the property. Constructed in 1993, it has been the subject of a local controversy. Originally a King County Fire District #41 fire station, it became a City property with the annexation of the area into Kirkland. Beginning around March 1, 1999 the station was staffed during the daytime by career personnel on overtime and reservists at night. Daytime career staffing ended December 31, 2008. After that time it was operated as a volunteer only fire station. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

The reserve program operating out of the station was eliminated due to budgetary constraints at the end of 2011, leaving the residents in the area concerned about emergency service delivery

to the area. An agreement was reached and volunteer EMTs provide EMS, allowing for re-opening the station earlier this year (2012). Service is limited to BLS EMS in the evening hours.

The building has been seismically upgraded, has auxiliary power and is considered to be in good condition, albeit inadequate to accommodate larger fire apparatus. There are offices but no community facilities. There are two back-in truck bays, small bunk room, locker (upstairs), exercise room, and kitchen. Features of the building include monitored smoke detection and keyed locks with keypad. The station aid car is staffed nightly from 7:00 PM to 5:00 AM with volunteer personnel.

The station is being actively considered for replacement and relocation to a location better suited to serve the Finn Hill neighborhood. Additional research and analysis in this report offers guidance to assist policymakers in determining next steps.

#### Fire Station No. 25

Fire Station No. 25 (Finn Hill South) is a reinforced brick, masonry building, constructed in 1974 with a kitchen remodel in 2006. The building has been seismically upgraded, has auxiliary power, and is considered to be in good condition. The station features two back-in truck bays, individual bedrooms instead of a dormitory style sleeping quarters located upstairs, an exercise room, kitchen, and gender specific lockers and showers. Features of the building include monitored smoke detection, keyed locks with keypads, and a positive pressure apparatus exhaust extraction system. There is limited office space but no community facilities or meeting rooms. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

Originally staffed by volunteers, the one engine and one aid unit are staffed by three assigned personnel per day. KF&BD addresses the terrain challenges of the Finn Hill area by using an engine at Fire Station No. 25 designed to handle steep grades and tight turns.

#### Fire Station No. 26

Fire Station No. 26 (North Rose Hill) is a wood frame and masonry structure that was built in 1995. The building has been seismically upgraded, has auxiliary power and is considered to be in very good condition. There are three apparatus bays, (one drive-through that is also double deep), a workout room, kitchen, lockers, and gender specific lockers and showers. A dormitory sleeps eight personnel. Features of the building include monitored smoke detection, keyed



locks with keypads, and a positive pressure apparatus exhaust extraction system. A large community/training room with an elevator for ADA accessibility and isolated access is available to the public. City hall is responsible for scheduling room use. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

The coverage area of the station is on the east side of Interstate 405 and personnel can respond into the City of Redmond. Daily staffing of the one engine and one aid unit is by three assigned personnel per day. A shift battalion chief and a training captain are assigned to the station. There are ten parking spaces available for the public multi-purpose room. Parking is inadequate for the number of people that routinely use the facility.

#### Fire Station No. 27

Fire Station No. 27 (Totem Lake) is a reinforced brick masonry building was built in 1976 and had limited tenant improvements in 2006. The building has been seismically upgraded, has auxiliary power, and is considered to be in fair condition. There are three apparatus bays (one double deep drive-through), workout room, kitchen, lockers, gender specific showers and restrooms, and individual bedrooms. Features of the building include monitored smoke detection, keyed locks with keypads, and a positive pressure apparatus exhaust extraction system. The station lacks adequate insulation. Station has a disaster preparedness container with 10 days of food stuffs for station personnel and an amateur radio HAM radio transmitter and antenna for communication during a disaster.

The station structure is a mirror image of Fire Station No. 22. Daily staffing of the one engine, one ladder truck, two aid units requires a minimum of six assigned personnel per day. The station is KF&BD's busiest and is ideally located near east and west arterials and has easy access to Interstate 405.

Planning for major remodeling and the replacement of fire stations is a major capital expense and requires long-range planning. Fire stations have a limited life expectancy from 35 up to approximately 50 years. Fire Station No. 25 (Finn Hill South), constructed in 1974 and Fire Station No. 27 (Totem Lake) built in 1976 have passed the 35 year life. ESCI recommends that a capital plan for the rebuild or replacement of fire stations be developed.



### Apparatus

KF&BD has established an apparatus replacement plan funded through the general fund of the City. The plan is currently written for the period 2011 through 2016 and is updated every two years. This fund schedules replacement of apparatus on a cycle, with engines and ladder trucks replaced every 18 years, aid vehicles replaced every eight years, and command staff vehicles replaced every eight years.

### **Support and Small Equipment**

Small equipment can be a significant part of a fire department's annual budget. It can be expensive to acquire and maintain and may have a limited technological life. ESCI surveyed a sampling of KF&BD's small equipment and found it to be in good condition. Fire department small equipment includes:

- SCBA (self-contained breathing apparatus)
- Small tools
- PPV (positive pressure ventilation fans)
- Computers
- Radios
- Breathing air compressors
- Hydraulic rescue tools
- Rescue tools
- Power saws

Maintenance and repair of small equipment and tools are handled both in house by fire department personnel, City mechanics, and by private sector vendors. SCBA servicing is handled by fire department personnel. Personnel assigned to SCBA duty receive incentive pay of 2 percent.

### Pump, Hose, and Ladder Testing

Pump and hose testing are two important processes that need to be performed and documented annually. The purpose of testing fire hose is to have a reasonable assurance of firefighter safety and that the hose and couplings will work as designed. The life expectancy of a section of fire hose is often determined by the care it receives. Hose is susceptible to mechanical injury, heat and fire damage, mold and mildew, and damage due to chemical contact and excessive pressure. Inspection, care, and maintenance should extend to all appliances and nozzles as well.

An inventory of all fire hose should be maintained, along with a history of each section. KF&BD's recordkeeping and hose-testing program meets the requirements of *NFPA 1961: Standard on Fire Hose, 2007 Edition*.

Fire pumps are one of the most important and expensive parts of any fire apparatus. The care and routine check of a fire pump is a necessity and should be completed by personnel on a regular schedule. Fire pumps are tested annually by a third party vendor. Records are maintained in hard copy paper and electronic format.

Annual aerial ladder testing is conducted by a third party.

#### Personal Protective Equipment (PPE) Maintenance

Statistical data has shown that buildup of contaminants on turnout gear (PPE or Personal Protective Equipment) has a direct impact on the health and safety of firefighting personnel. Firefighters who are exposed to contaminated PPE have a much higher risk of contracting an illness. The health and safety risks associated with contaminated turnout gear are addressed in *NFPA 1500, 1581, and 1971*. Standards require that protective clothing be cleaned at least once every six months. While this standard may seem excessive, ESCI has found that regular cleaning and maintenance will extend the life expectancy of turnout gear. Proper care enables fire departments to lengthen the replacement cycle of PPE.

KF&BD has made provisions for routine cleaning of firefighting PPE. While all fire stations have residential washer and dryers only two have commercial extractors. KF&BD personnel have access to commercial extractors at Fire Station Nos. 21 and 26—the only units approved for cleaning PPE when used in conjunction with approved cleaning solutions.<sup>58</sup> Turnout drying and storage areas should be provided in each fire station. A common problem observed by ESCI in KF&BD fire stations is the storage of turnout gear in apparatus bays or in an adjacent room with no doors and/or ventilation. ESCI recommends that PPE be stored in a separate, well ventilated room.

#### **Mutual and Automatic Aid Systems**

There are numerous mutual aid agreements, both formal and informal, in place between fire, police, and emergency medical agencies in the Puget Sound area. Mutual aid is characteristically employed on an as-needed basis where fire units are called for and specified

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<sup>58</sup> Fire Station No. 26 had a commercial extractor delivered that was being installed during this course of this study.

by an IC (Incident Commander). There are three basic types of mutual aid that are available to most fire departments.

1. *Basic Mutual Aid upon Request*

This form of mutual aid is the most basic and is typically permitted under broad public laws that allow communities to share resources upon request during times of disaster or during local and regional emergencies. Often, these broad laws permit communities to make decisions quickly regarding mutual aid under specified limitations of liability, allowing a community to tap into resources from their immediate neighbors, as well as very distant resources in communities with which they have very little day-to-day contact. Under this level of mutual aid, specific resources are typically requested by a fire department, through the chain of command or sometimes coordinated by local or regional emergency management personnel. Depending on the level of the request, the response can sometimes be slow and the authorization process may be cumbersome due to the exchange of official information or even elected officials' approval that may be required.

2. *Written Mutual Aid Agreement*

This form of mutual aid goes one step further by formalizing in writing an agreement between communities (typically immediate neighbors in a region) in an effort to simplify the procedures and reduce response times in an emergency. Frequently, these agreements are developed by fire department officials, but executed by the policy-makers of the participating jurisdictions. By signing such agreements, communities are "pre-authorizing" the deployment of their resources under specified circumstances. In Washington State, mutual aid agreements are generally reciprocal in nature without compensation for services or a subsidy. In other words, mutual aid must truly be "mutual." In King County, all fire agencies are guarantor to a master mutual aid agreement.

3. *Automatic Aid Agreement*

Automatic aid takes the process an additional step by spelling out circumstances under which one or more specific resources will respond automatically upon notification of a reported incident in the neighboring community. In essence, an automatic aid agreement expands a community's initial first alarm response to certain types of incidents by adding resources from a neighboring agency to that response protocol. Typically, such agreements are for specific geographic areas where the neighbor's resource can be expected to have a reasonable response time and are limited to specific incidents. An example of such an agreement is having a neighboring community's engine respond to all reported structure fires in an area where a neighboring agency's apparatus would be closer than the second or third-due engine from the home community. In other instances, an agreement might cover a specialized resource, such as an aerial apparatus that the home community does not possess.

Automatic aid agreements may be purely reciprocal or may involve the exchange of money for services provided. Reciprocal agreements are common when used where each community have mutually beneficial resources or services that can be provided. Services or resources need not be identical. For instance, one community may send an engine to a second community on automatic response to structure fires, while the second community agrees in

exchange to send a water tender to the first community's structure fire calls. These reciprocal agreements are usually made where some reasonable level of use balance is expected between the parties of the agreement.

A primary purpose of an automatic aid agreement is to improve the regional application of resources and staffing. Since fire protection resources are most frequently established because of the occupancy risks in a community and not necessarily a heavy workload, apparatus may be idle for long periods of time. While fire departments make productive use of this time through training, drills, pre-incident planning, and other functions, the fact is that expensive apparatus resources and personnel are not heavily tied up on emergency incidents. Communities that share certain resources back and forth are essentially providing a higher quality of service than would be otherwise available by the host agency, and reducing expensive redundancy and overlapping services.

KF&BD has entered into and relies upon, automatic aid agreements with Northshore, Bothell, Woodinville, Redmond, and Bellevue fire departments. Most of KF&BD's emergency response resources are committed when a single structure fire event occurs in the City. KF&BD depends on automatic aid partners that are proximate to Kirkland to augment responses or backfill empty fire stations.

There will never be an even balance between the amount of mutual and automatic aid given and received. Therefore, tracking of aid events is information that can be analyzed to determine if an inequity exists. Analysis involves several variables; the number of incidents; apparatus; personnel; and the length of time committed to mutual and automatic aid calls. If an imbalance is found in aid services, it is appropriate to negotiate a change in dispatch and response protocols to achieve a balance between fire departments.

### **Current Service Demand**

In this section, the current condition of KF&BD's emergency response deployment and performance is analyzed. It covers the topics of service demand and distribution, reliability, incident control and management, water supply, and mutual and automatic aid.

Fire and EMS agencies traditionally have planned, trained, and deployed resources independent of each other although there is interdependence on emergency incidents. This paradox at emergency incidents occurs because emergency service agencies at times will require assistance from other jurisdictions. This can happen for any number of reasons. The

more common occurrences are for assistance at larger fire incidents, closest unit response by a neighboring apparatus, and when travel time from a fire station is nearer the scene of an emergency. Because of this interdependence, ESCI's GIS (geographic information system) analysis often incorporates fire and EMS service areas adjacent to Kirkland.

#### *Incident Control and Management*

KF&BD uses the Northeast King County Regional Public Safety Communication Agency (NORCOM) as its Public Safety Answering Point (PSAP) to receive, process, dispatch and track emergency response resources. NORCOM standardizes response assignments for each agency it serves based on the type of call dispatched. KF&BD establishes its "response assignments" for each call type. These assignments are intended to provide the quantity and type of apparatus needed for each incident type, as well as the correct number of staff to accomplish the critical tasks necessary to mitigate the emergency.

Technology has been deployed to manage dispatches and resources in real time. MDCs (mobile data computers) and AVL (automatic vehicle location) are available in all department apparatus. AVL provides satellite information in real time for a vehicle's specific location, typically within ten feet of its actual position. Thus, NORCOM can dispatch apparatus based on actual, not assumed location, such as the unit's assigned fire station. This technology improves response time by sending units that are physically closer to an incident versus an assumption of being in quarters. MDC technology allows real time information transmittal to response crews responding to an incident. Dispatch data pertinent to the emergency response should include target hazards or specific building records, water supply, and any other information that would help the officer prepare for an incident.

The fire department has one FTE deputy chief of operations working an administrative schedule and three operational battalion chiefs, one per 48-hour shift. KF&BD uses captains and lieutenants at each station as first line-supervisors for each response unit. In addition to the resources dispatched on a response assignment, a safety officer—the training chief—also responds. The agency uses the ICS (Incident Command System) on emergency responses and the Passport Accountability System for all fire ground incidents and other major or long-term incidents.

#### *Response Activity*

ESCI was provided with five years of summary response activity (2005 to 2009) and approximately two years of detailed incident response activity (2010 through 2011). A gap in

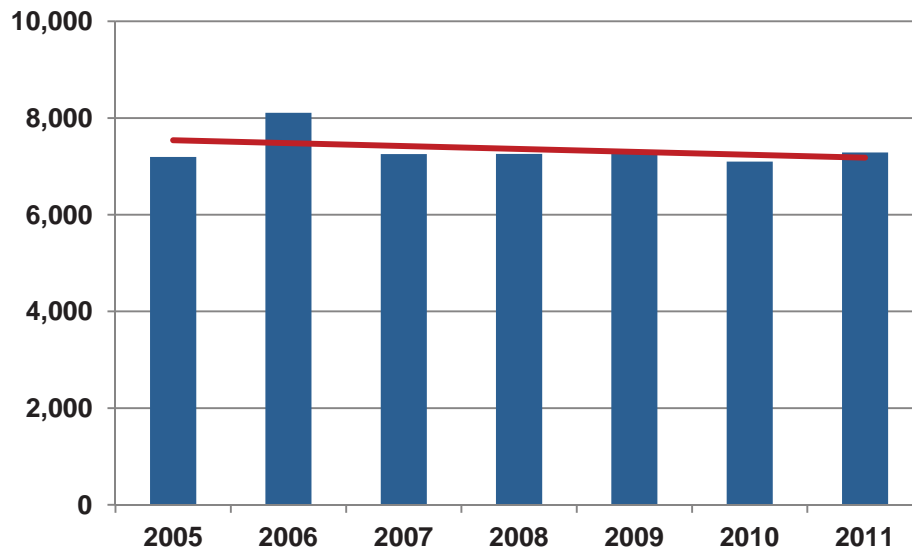
detailed incident data occurred in the first three weeks of September 2011 due to a software malfunction during an aborted startup of the New World RMS. For this reason ESCI used historical responses from September 2010 through August 2011 for analysis. A total of 7,380 incidents were included in the data set. Incidents defined as outliers (invalid, incomplete reports or data that was outside expected values) were eliminated prior to analysis. Another small percentage of incident reports were unusable because of data integrity issues. In ESCI's experience RMS software generally has validated user input and rejects those entries outside of the expected (normal) range.

Frequent review of response data is necessary to understand how deployment changes impact coverage of service demand coverage. This is especially true when large changes occur. With only several months of post annexation data available the effect is not yet known. Prior to the annexation of a portion of Woodinville and the closure of Woodinville Fire Station No. 34, Fire Station No. 27 was busy. Going forward, fire station and unit work load needs to be monitored.

KF&BD's response data was categorized into the following three major categories:

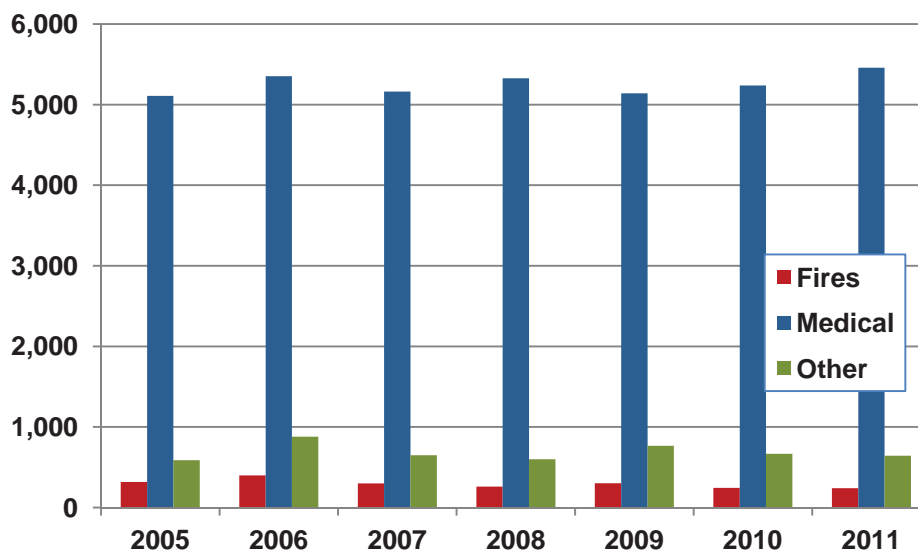
- Fire: Structure fires, vehicle fires, wildland fires, and equipment fires
- EMS: Medical emergencies, traumatic injuries, MVAs (motor vehicle accident), and rescues
- Other: Hazardous materials, explosions or ruptures without fire, smoke investigations, and false alarms

Analysis of service demand began with a review of total response activity for KF&BD from 2005 to 2011 (Figure 52).

**Figure 52: Total Service Demand, 2005 – 2011**

With one exception, total annual responses varied less than 4 percent (225 responses). In 2006, calls for service were approximately 9 percent above the seven-year average (2005 to 2011). Total responses for the one-year analysis period (September 2010 through August 2011) were consistent with the seven-year average of 7,360.

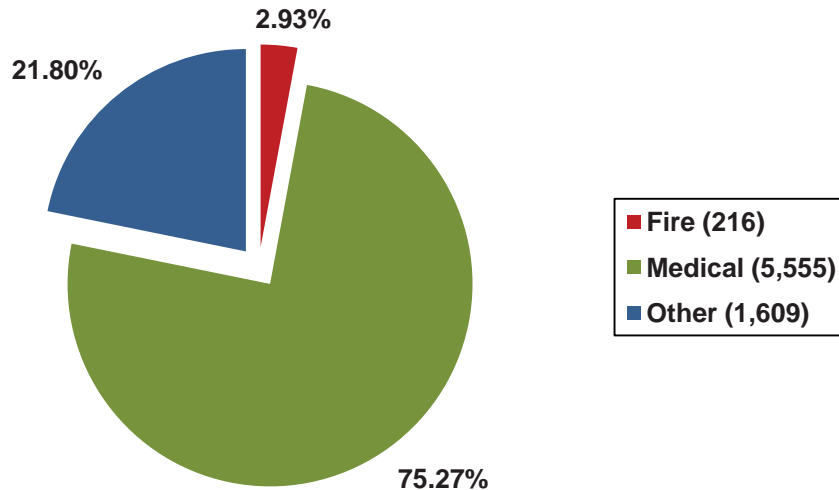
Figure 53 examines service demand by major incident category from 2005 through 2011.

**Figure 53: Service Demand by Incident Type, 2005 – 2011**

There were only minor differences for incidents by category during the seven years that ESCI reviewed.

The following figure shows percentage of service demand by incident type for the one-year period September 2010 through August 2011.

**Figure 54: Percentage of Service Demand by Incident Type, September 2010 – August 2011**



While total service demand was consistent with the five-year average (2005 to 2009), the percentage of calls related to EMS increased by nearly 5 percent. Reasons for the increase are unknown but may be related to staffing and deployment changes of neighboring fire and EMS providers.

Figure 55 is a breakdown of the incident responses using the NFIRS (National Fire Incident Reporting System) three-digit code and the written description that best describes the type of incident. This description is generally the type of incident found when emergency personnel arrived; if a more serious condition developed after the fire department's arrival on the scene, that incident type is reported.



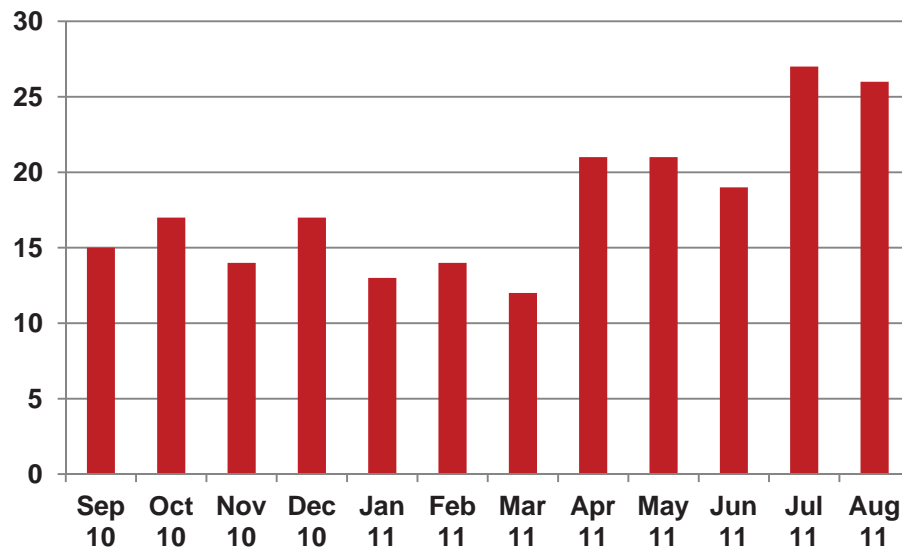
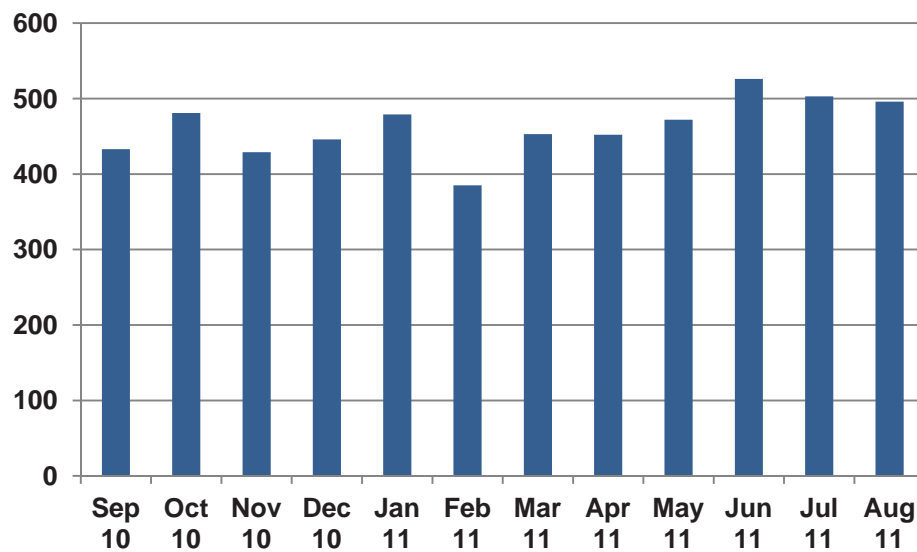
**Figure 55: NFIRS Incident Type, September 2010 – August 2011**

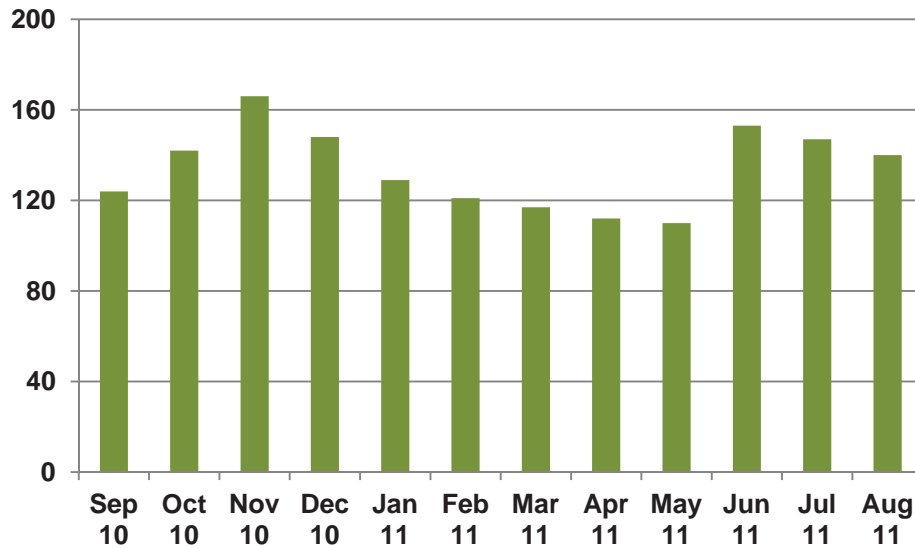
Series Description	Total	Percentage
100 – Fire	216	2.93%
200 – Overpressure Rupture, Explosion, Overheat (No Ensuing Fire)	3	0.04%
300 – Rescue and Emergency Medical Service (EMS) Incidents	5,555	75.27%
400 – Hazardous Condition (No Fire)	119	1.61%
500 – Service Call	240	3.25%
600 – Good Intent Call	610	8.27%
700 – False Alarm and False Call	594	8.05%
800 – Severe Weather and Natural Disaster	10	0.14%
900 – Special Incident Type	33	0.45%
<b>Total</b>	<b>7,380</b>	<b>100.00%</b>

The number of fire incidents declined in the September 2010 to August 2011 period when compared to the five-year period. Fires of all types decreased as a percentage of incidents from 4.23 percent to 2.93 percent. The decrease is statistically insignificant but is consistent with the trend being experienced in many fire agencies throughout the country.

#### Service Demand by Temporal Variation

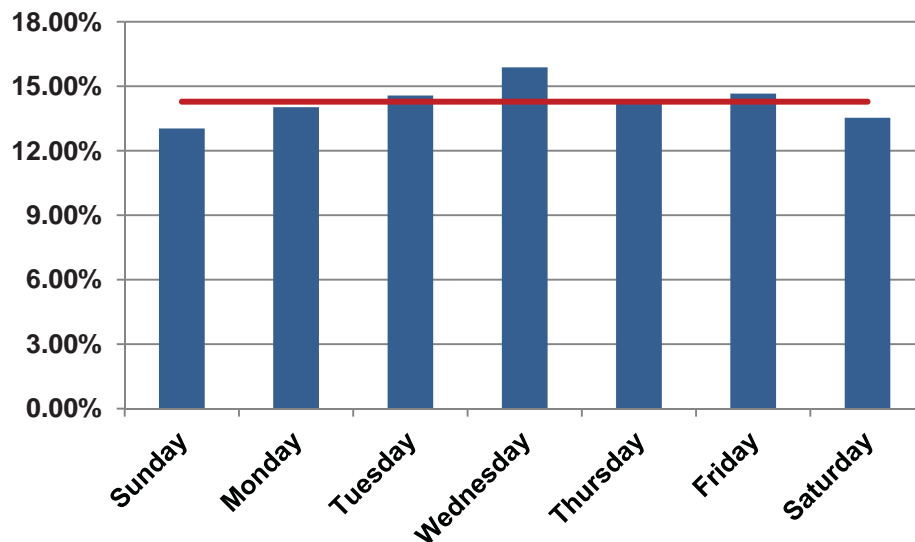
ESCI continued the analysis by examining service demand by temporal variation. Incident data for the one-year period September 2010 through August 2011 was used to show how demand changes based on various measures of time. Figure 56 illustrates service demand for fire incidents by month of the year, Figure 57 for EMS incidents, and Figure 58 for other incident types.

**Figure 56: Fire Incident Service Demand by Month of Year, September 2010 – August 2011****Figure 57: EMS Incident Service Demand by Month of Year, September 2010 – August 2011**

**Figure 58: Other Incident Service Demand by Month of Year, September 2010 – August 2011**

During the 12-month period service demand for KF&BD varied from a low of 7.05 percent in February to a high of 9.46 percent in June. The service demand average was 8.33 percent. The variation in service demand for fire incidents was highest in July and August. Fire incidents require the largest number of personnel and as a consequence should be monitored for periods of time when a potential exists to exceed available resources.

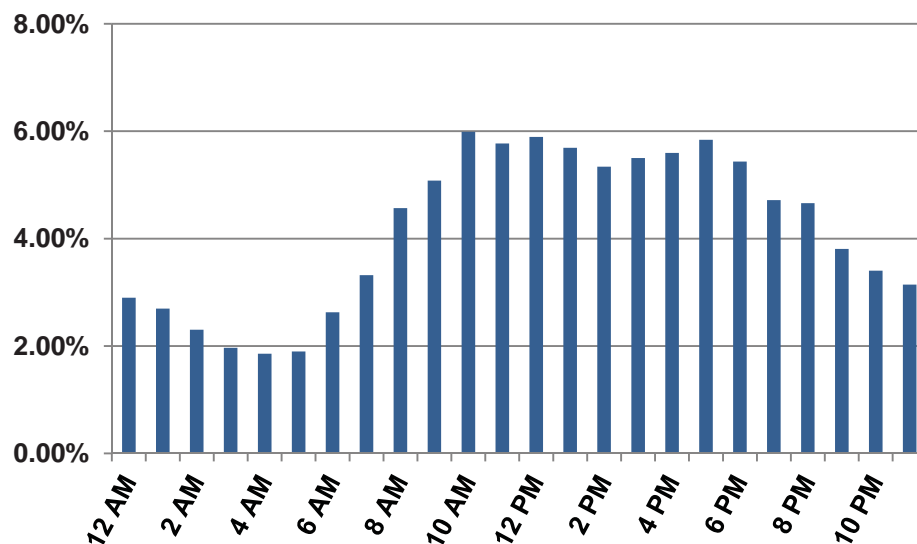
Figure 59 displays service demand by day of the week for the same time period for all incidents.

**Figure 59: Service Demand by Day of Week, September 2010 – August 2011**

Sundays had the lowest total call volume by day for KF&BD and Wednesdays had the highest number of calls for service. Average call volume by day of week ranges from a low of 13.04 percent to a high of 15.88 percent.

Another measure involves determining service demand by hour of day. Figure 60 displays service demand by the hour of the day from September 2010 through August 2011 for all incidents.

**Figure 60: Service Demand by Hour of the Day, September 2010 – August 2011**



Call data and response activity post annexation was not available for this study. Second, the data set was smaller than typically used by ESCI for analysis. Problems were identified with the CAD system included three full weeks of response information that was not available from the month of September 2011.

#### Service Demand by Geographic Distribution

In addition to the temporal analysis of service demand, it is useful to examine the geographic distribution of service demand. Using Geographic Information System (GIS) software, ESCI was able to geocode KF&BD incidents for September 2010 through August 2011. The first map (Figure 61) displays the service area of KF&BD, fire stations, major arterials, railroads, schools, and parks. The second map (Figure 62) shows an expanded view of the City and fire department service and perimeter area and incorporates the fire stations of neighboring fire agencies. Note: Fire Station No. 24 station aid car is staffed nightly from 7:00 PM to 5:00 AM with volunteer personnel and Woodinville Fire & Rescue Fire Station No. 34 is unstaffed.

Figure 61: KF&amp;BD Service Area

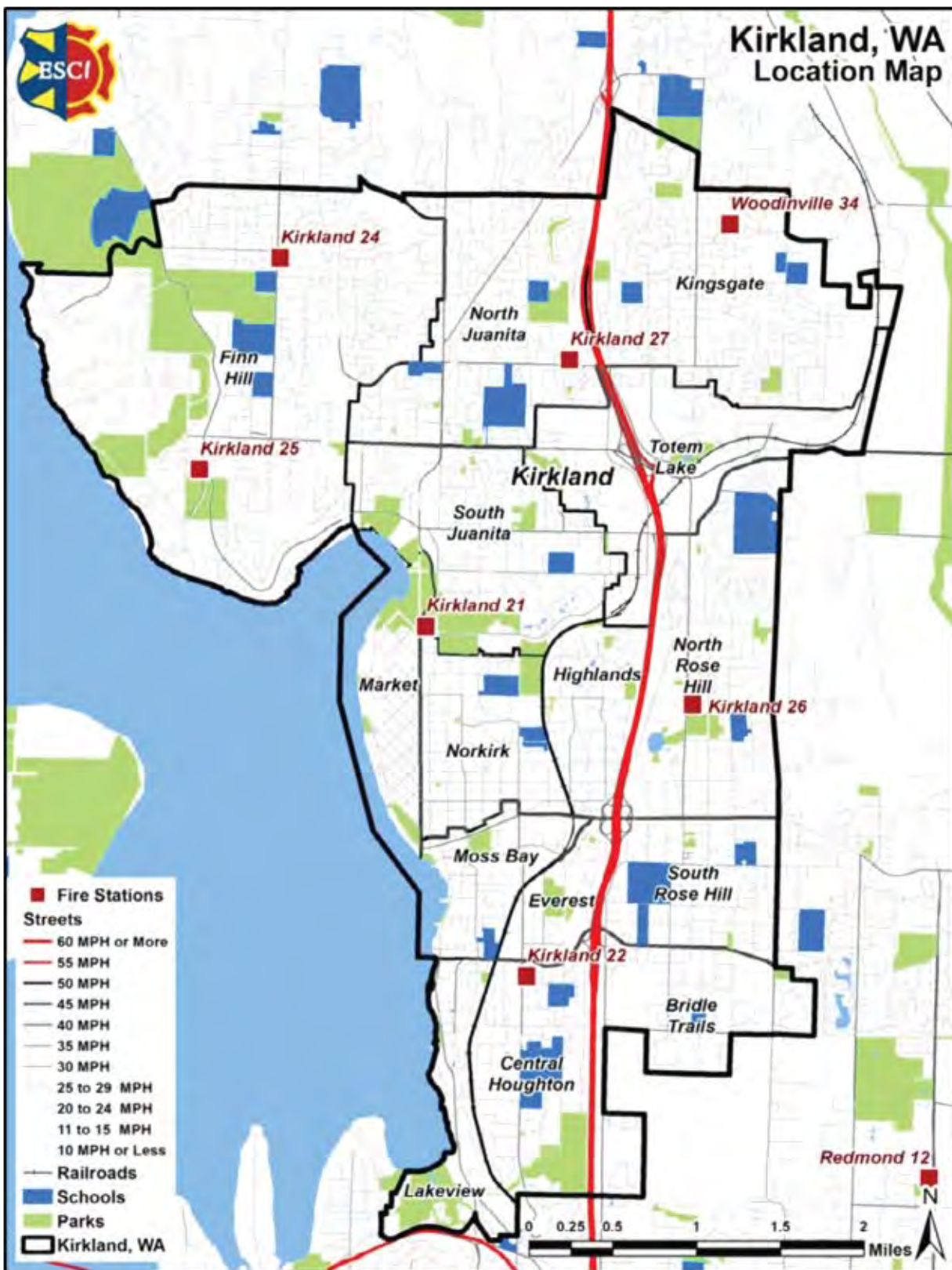
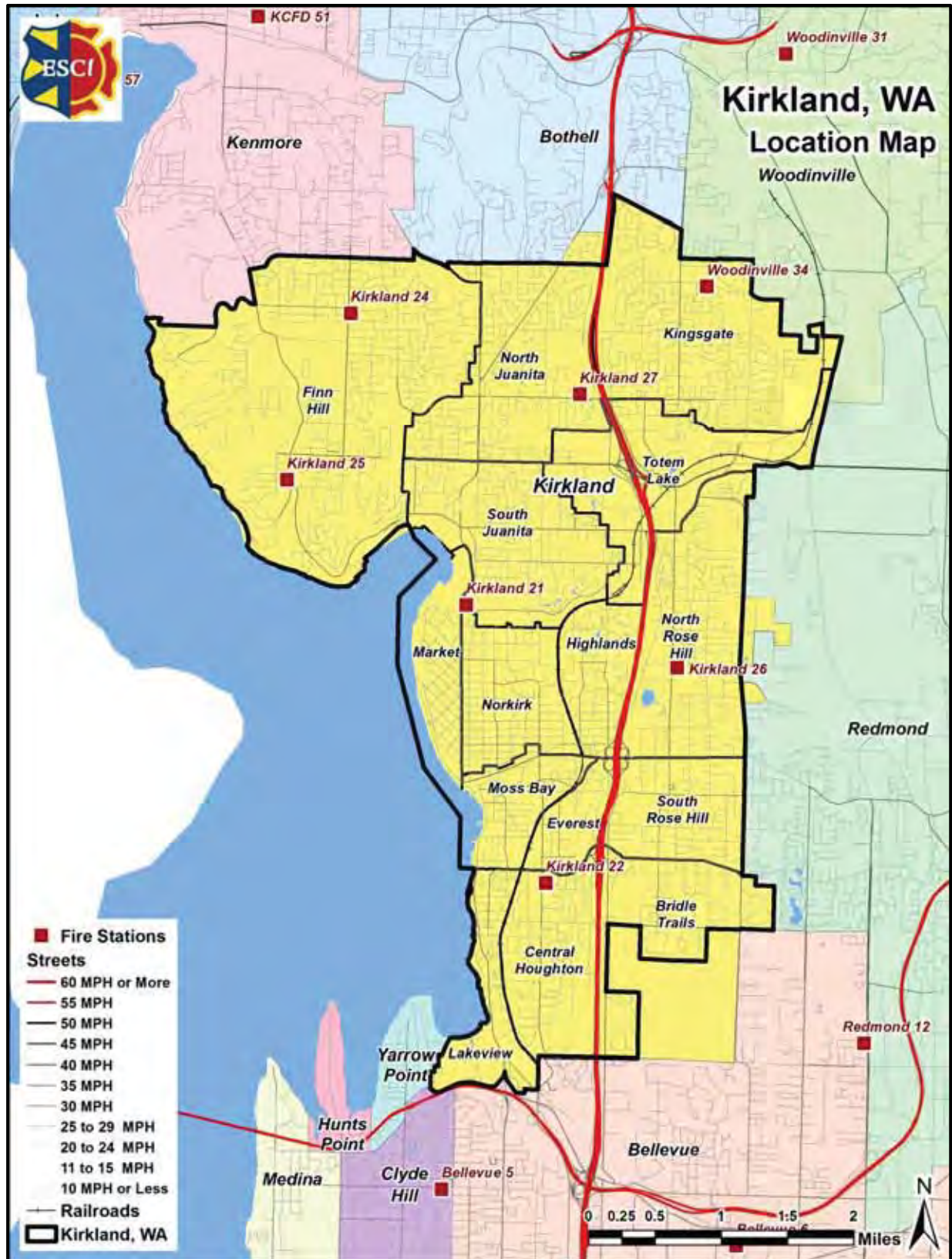




Figure 62: KF&amp;BD Service Area Expanded



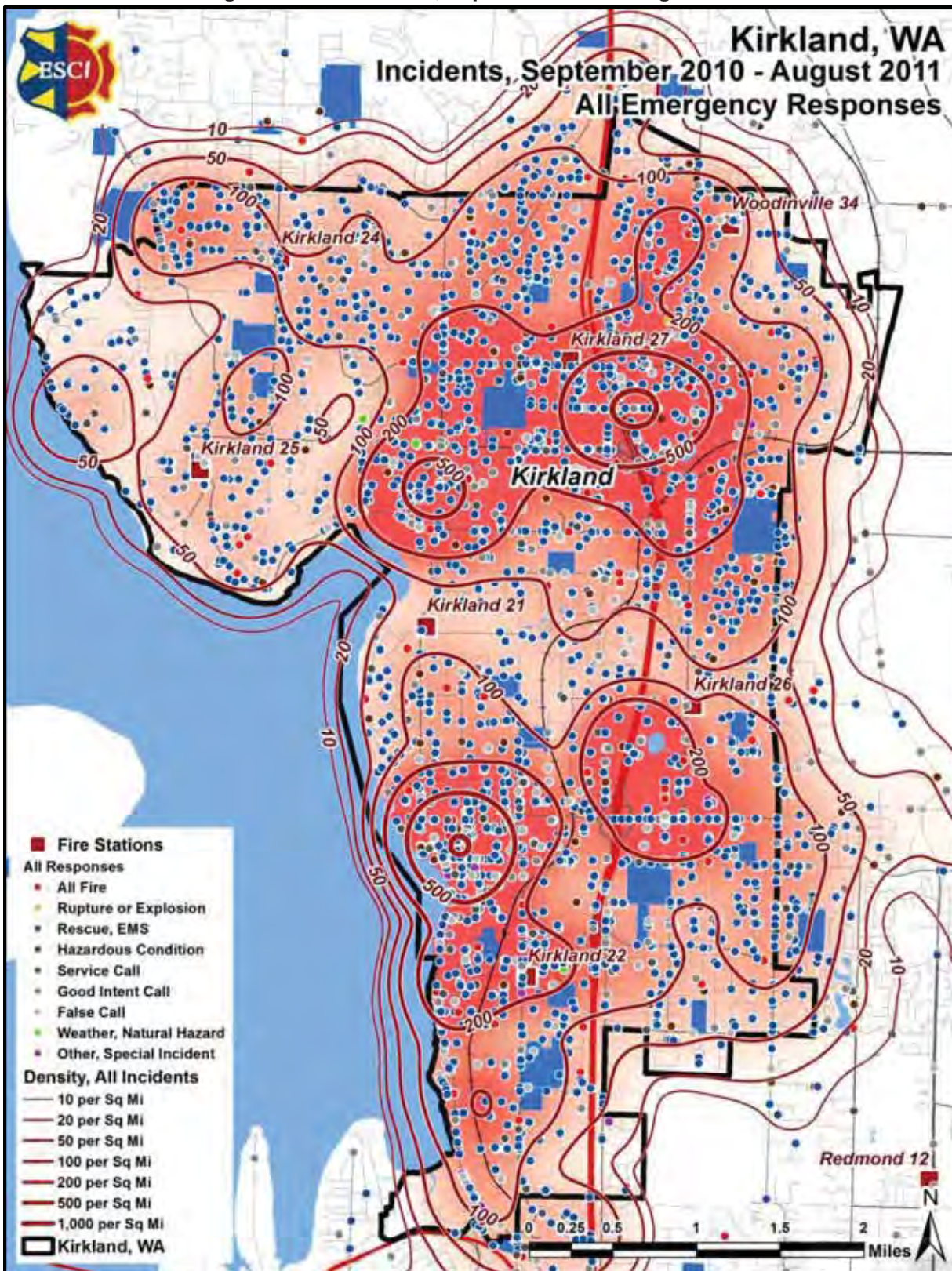
To one level or another, KF&BD functions with all of the fire agencies on the north and eastside of Lake Washington. More frequent operations are conducted with the Bellevue, Redmond, and Bothell fire departments and the Woodinville and Northshore fire protection districts.

### *Demand Analysis*

ESCI examined service demand by incident type and temporal variation. Figure 63 illustrates the location of all incidents responded to by KF&BD that occurred between September 2010 and August 2011.



Figure 63: All Incidents, September 2010 – August 2011

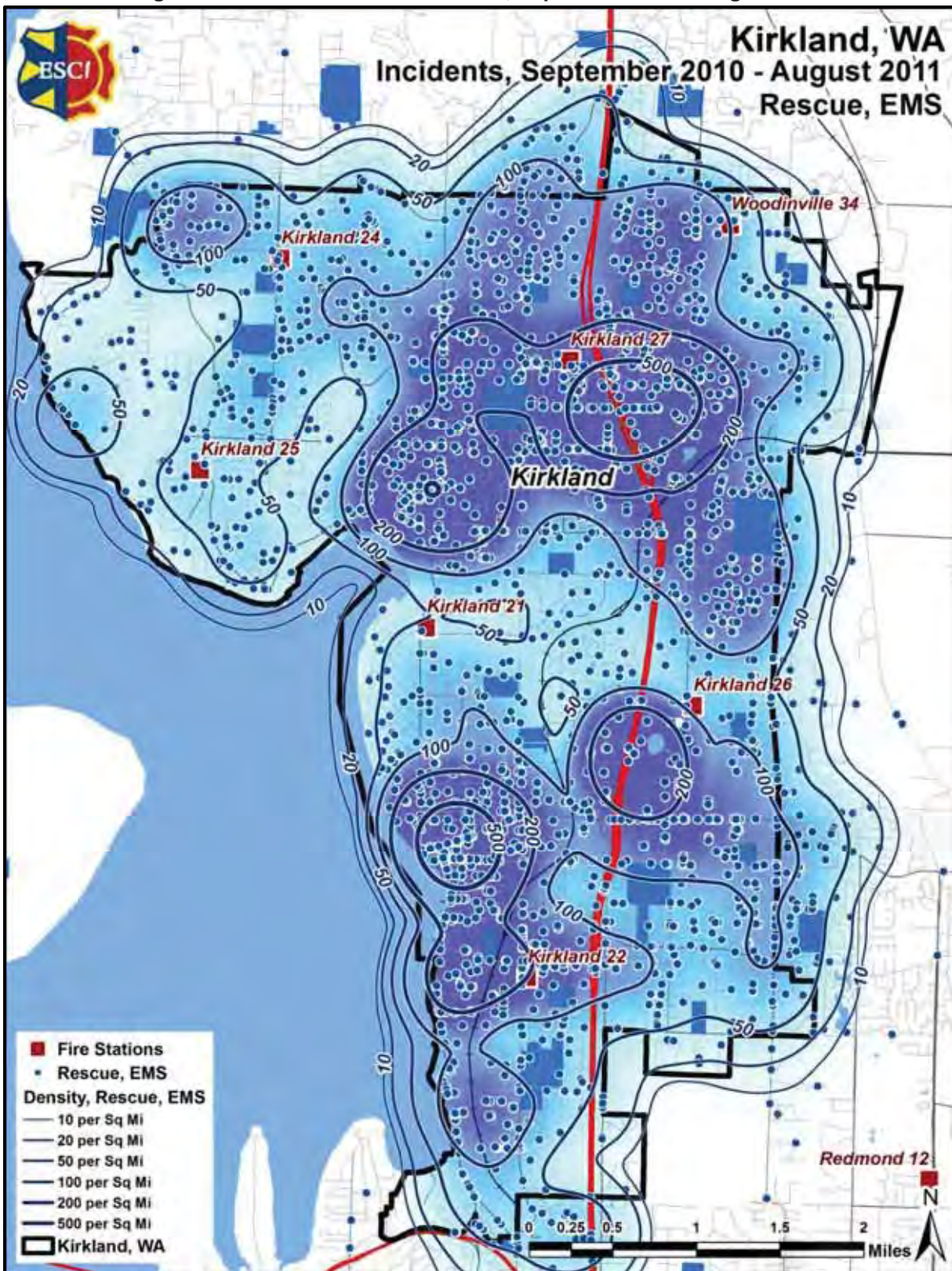




With over 7,300 calls for service responded to by KF&BD, Figure 63 shows that while there are parts of the City that had higher service demand, none was immune to emergencies. From September 2010 through August 2011, the three areas of Kirkland with service demand that exceeded 500 calls per square mile occurred between Fire Station Nos. 21 and 27 and northwest of Fire Station No. 22.

In the next figure ESCI displays only the location of those incidents geocoded in the reports as rescue and EMS incidents for the same one-year period. As with fire incidents, rescue and EMS incidents are in similar clusters, but with a greater distribution throughout the City. Over 75 percent of the occurrences (5,555) were EMS related.

Figure 64: Rescue and EMS Incidents, September 2010 – August 2011

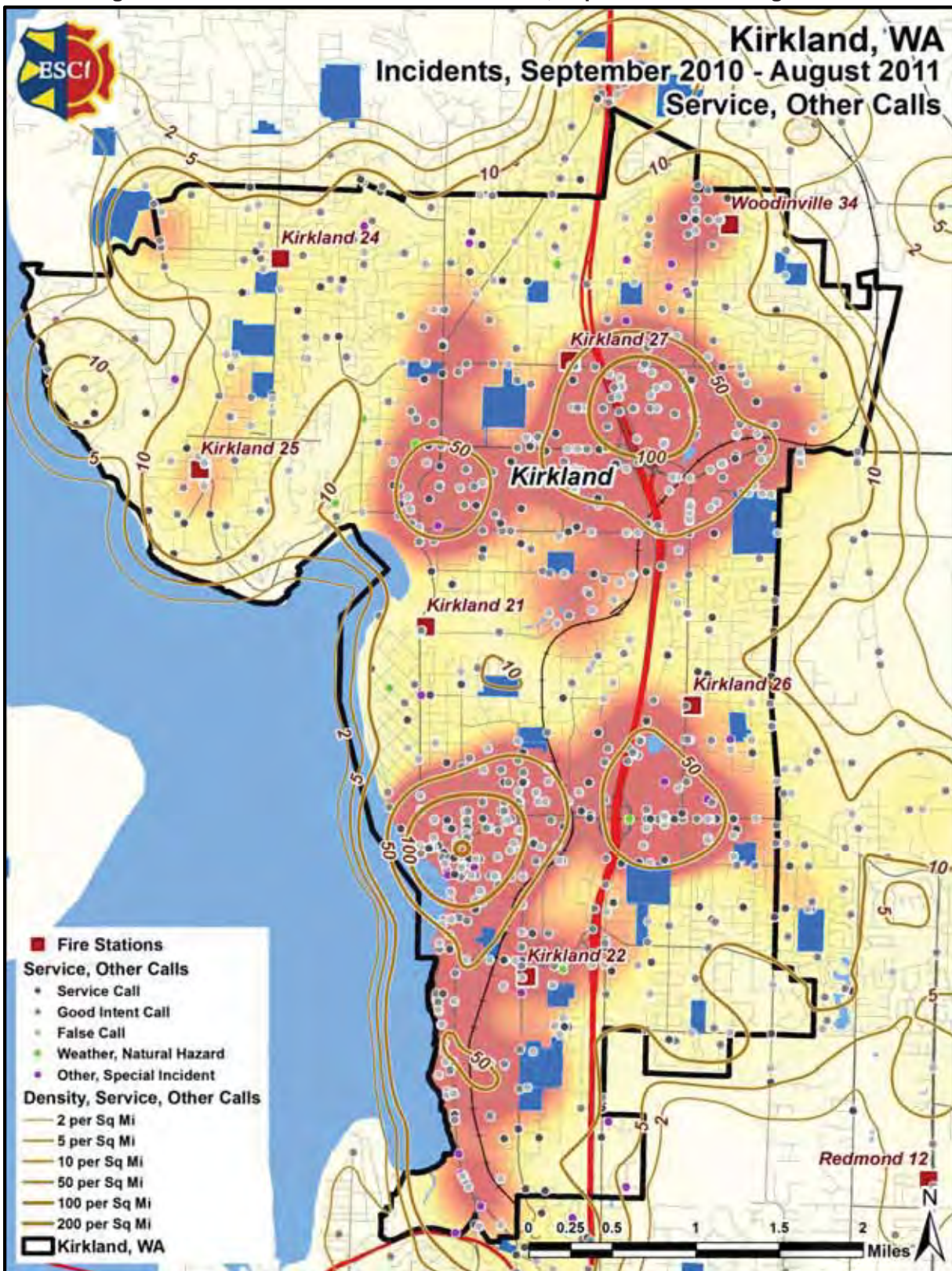


A cluster of EMS incidents to the west of Fire Station No. 24 is significant in that the closest response is from either Fire Station Nos. 25 or 27 during the time of day when the majority of calls for service occur.

Figure 65 shows the distribution of all incidents classified as other and service calls that occurred from September 2010 and August 2011. Fewer incidents classified in the other category occurred outside of the three highest density areas for fires and medical calls.



Figure 65: Service and Other Calls for Service, September 2010 – August 2011



There is a pocket of other incidents west of Fire Station No. 24 that is similar to the clustering of EMS incidents.

In the next map (Figure 66), incidents for the same one-year period categorized as fire, explosion, and hazardous materials events are shown. In Figure 67, only those incidents classified as structure fires are shown.



Figure 66: Fire, Explosion, and Hazardous Materials Incidents, September 2010 – August 2011

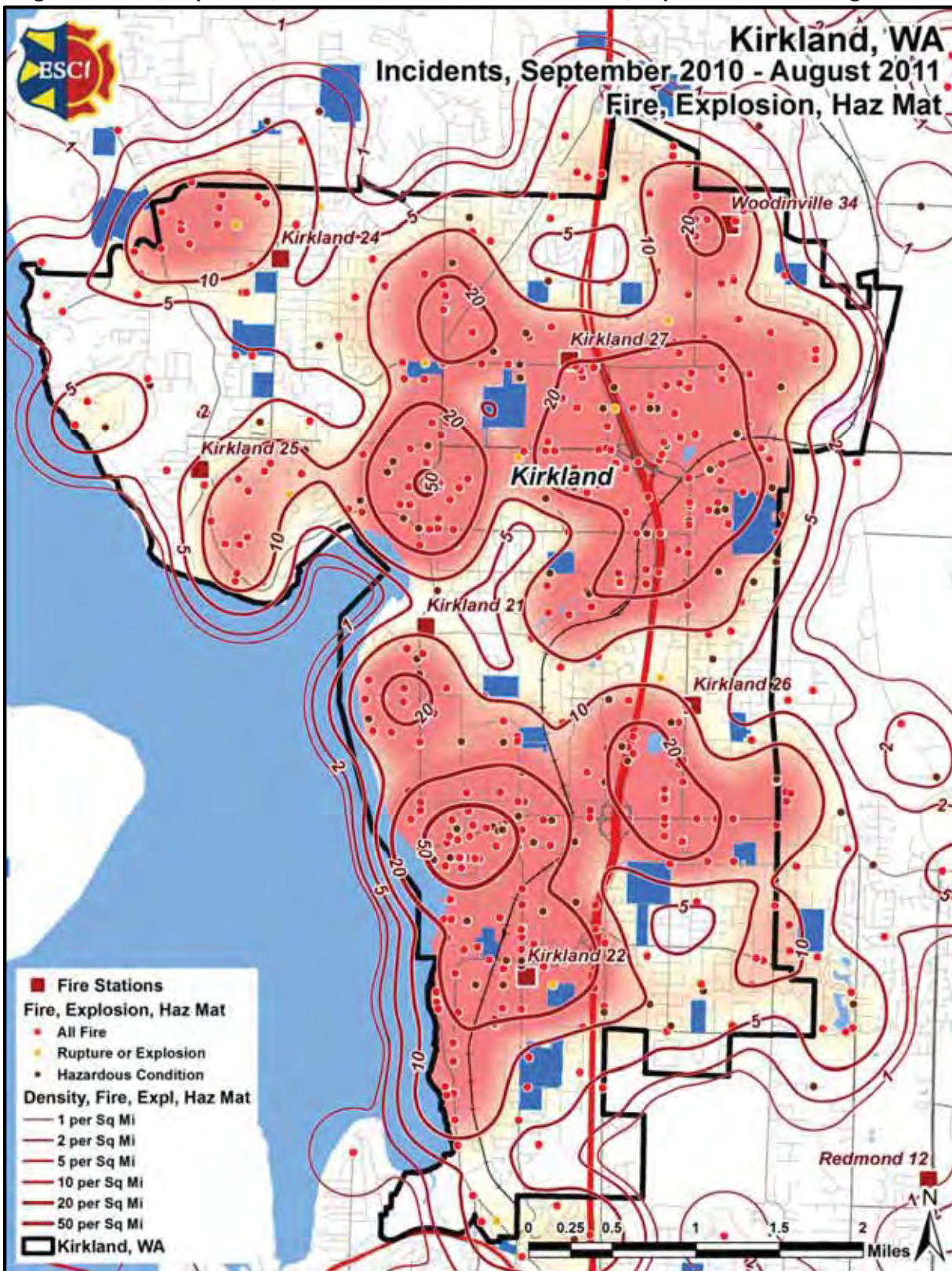
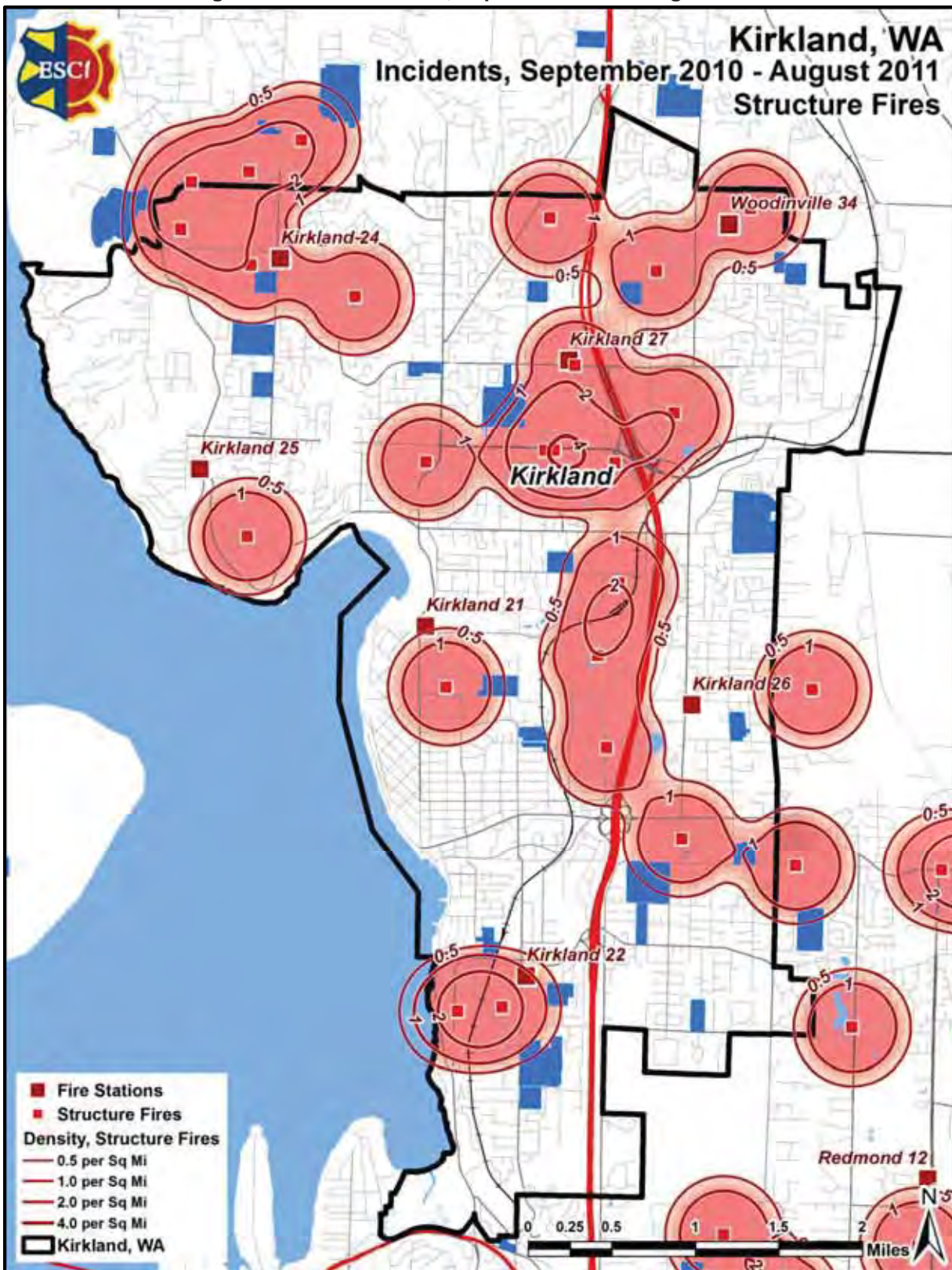




Figure 67: Structure Fires, September 2010 – August 2011



Structure fires were widely dispersed throughout the city. With fewer numbers of structural fire events it is difficult to draw any conclusion related to location of fire incidents.

A collection of EMS, fire, and other incidents occurred to the west of Fire Station No. 24 during the one-year study period. Multiple instances of calls for service also occurred just over the border in Northshore's service area.

### Response Time

The fire service defines response time as the total time measured from the moment notification is received by the emergency communications center until arrival of the first apparatus on the scene of the incident. Components of response include discovery of the emergency, 9-1-1 activation, call processing and dispatch of emergency response, turnout time, travel time, arrival on the scene of the emergency, setup time (fire incidents), and when mitigation of the emergency begins.

### Distribution Study

ESCI began the distribution analysis by examining travel time over the current road network. Travel is only one component of response time. National standards and KF&BD's adopted response standard is based on four minutes of travel time.

The following maps model the travel distance capability of emergency apparatus within 4 (4:00), 5 (5:00), 5.5 (5:30), and 8 (8:00) minutes travel time from each KF&BD fire station. Adjustments to speed capability of the streets were made to account for negotiating turns, grades, intersections, traffic calming devices, and other impediments. Travel time assumes that the fire of aid unit is responding from quarters.



Figure 68: Fire Station No. 21 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time

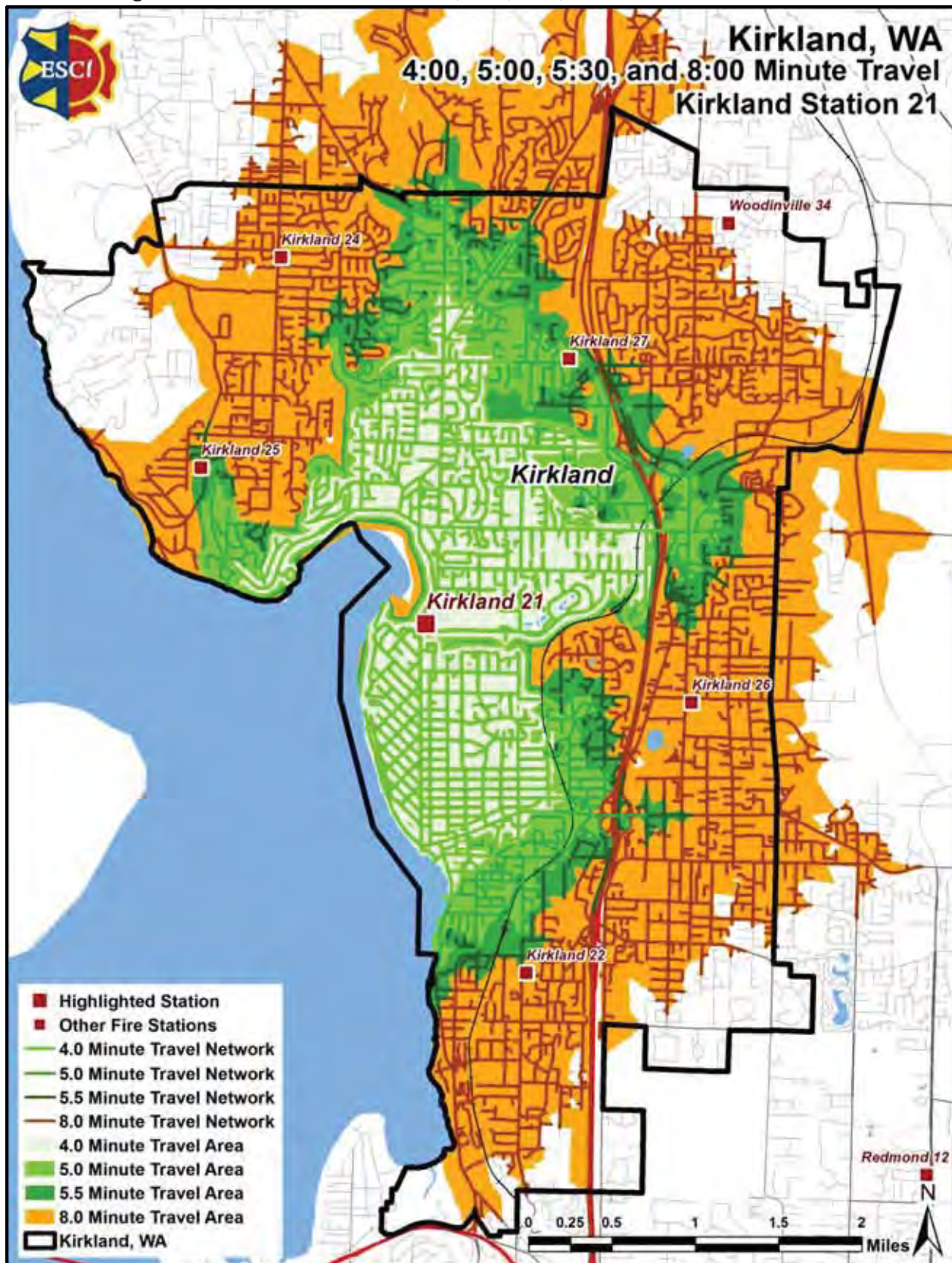




Figure 69: Fire Station No. 22 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time

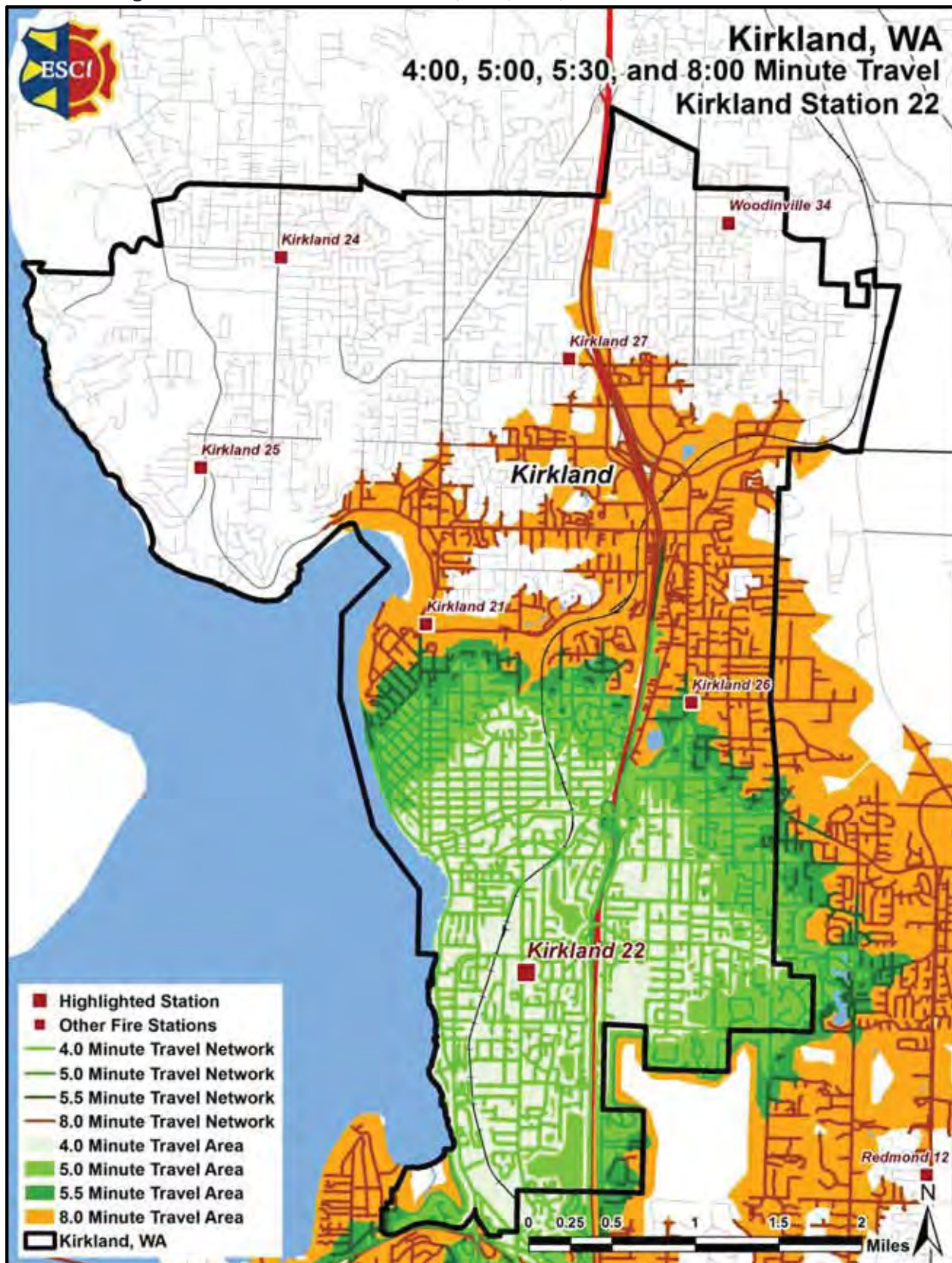




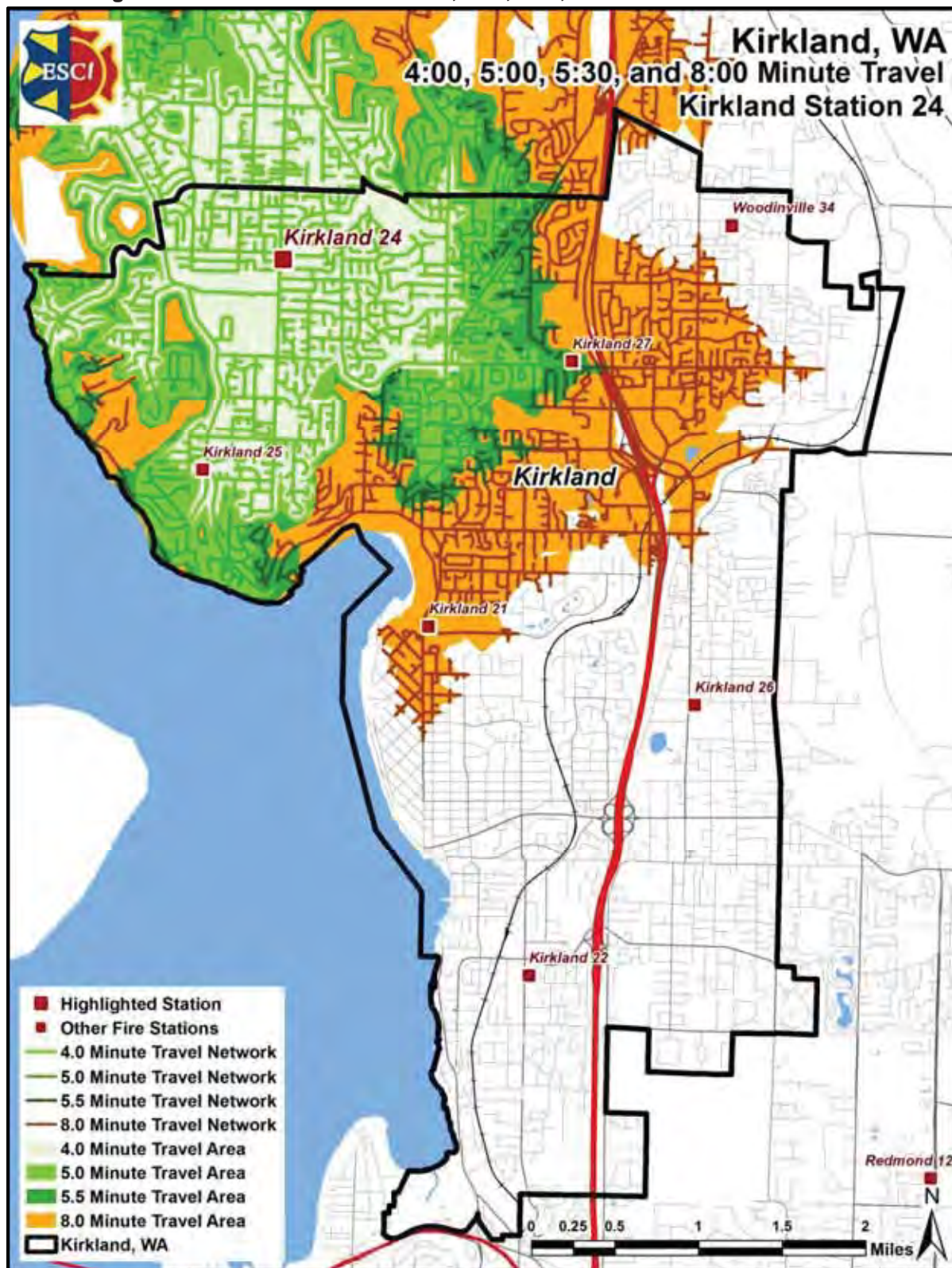
Figure 70: Fire Station No. 24 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time<sup>59</sup><sup>59</sup> Fire Station No. 24 station aid car is staffed nightly from 7:00 PM to 5:00 AM with volunteer personnel.



Figure 71: Fire Station No. 25 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time

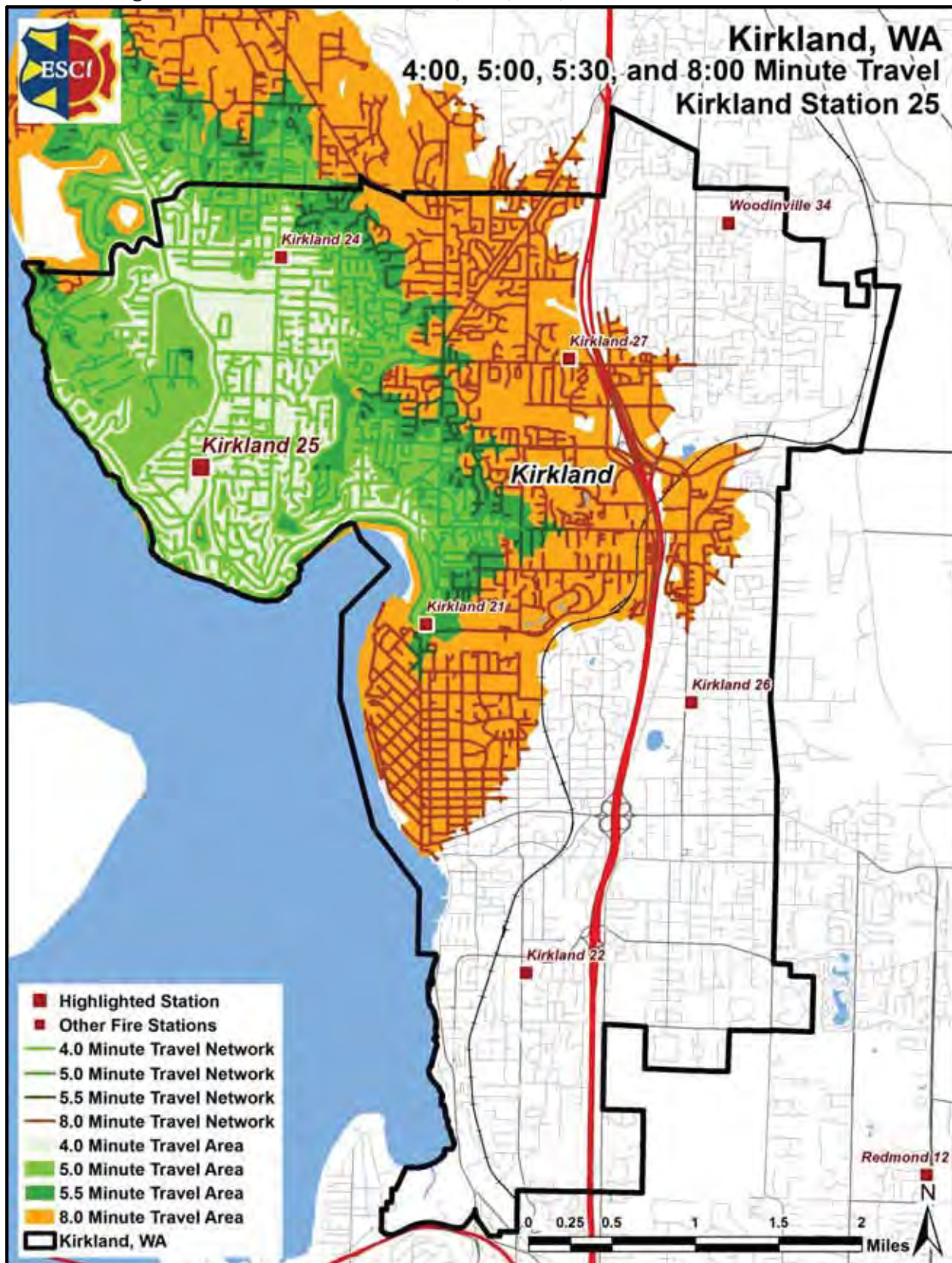




Figure 72: Fire Station No. 26 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time

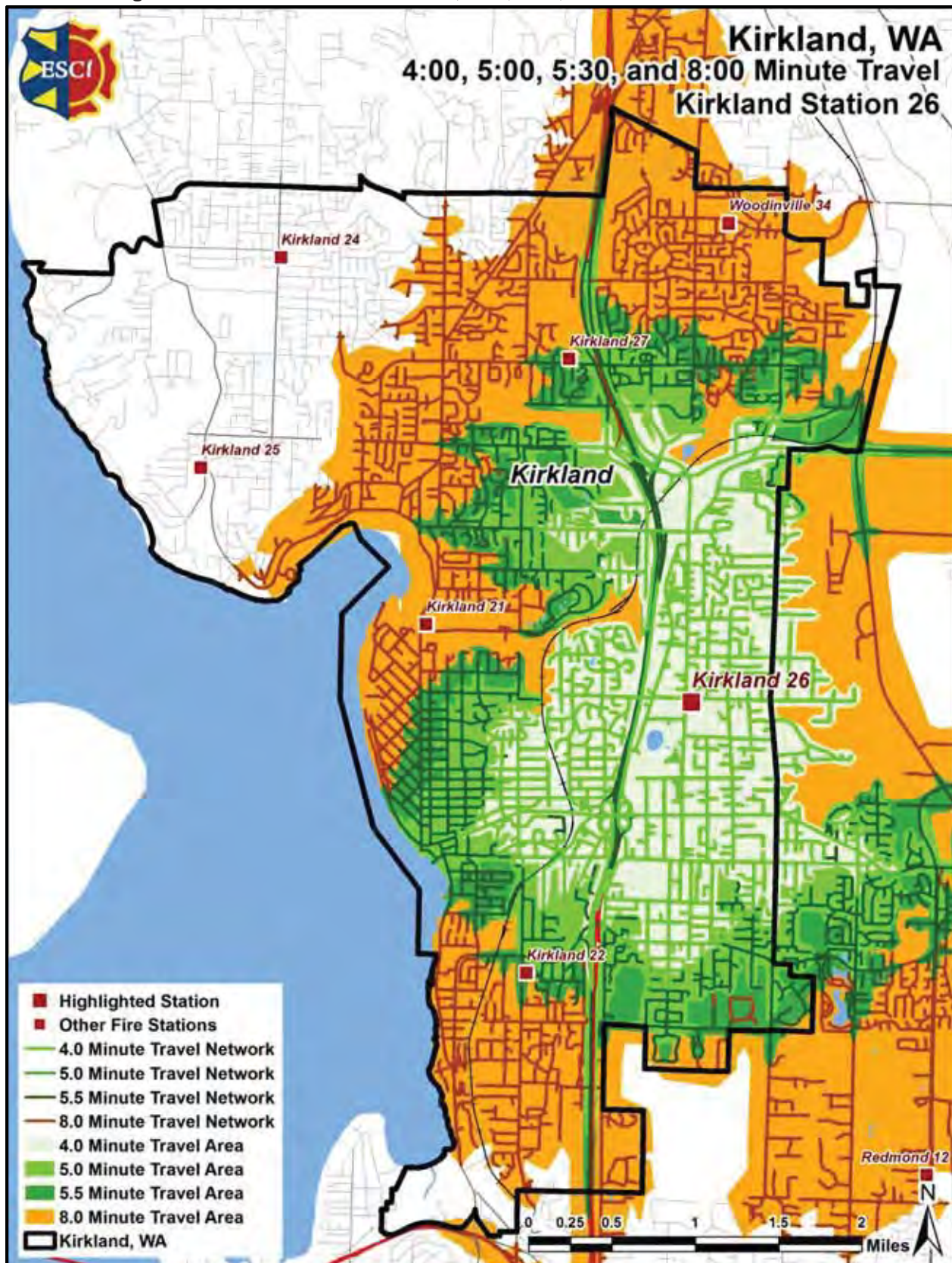
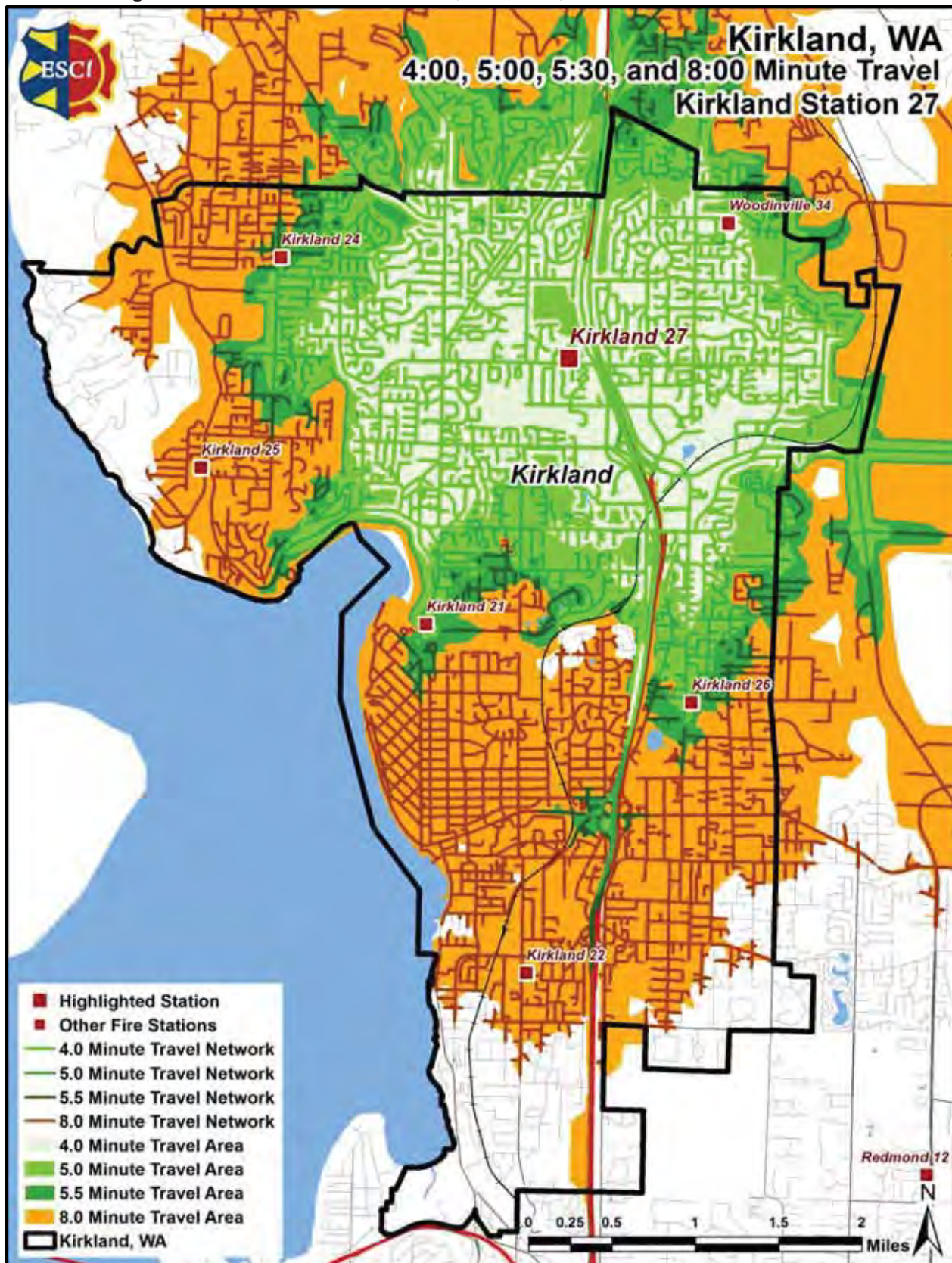




Figure 73: Fire Station No. 27 – 4:00, 5:00, 5:30, and 8:00-Minute Travel Time



### Concentration Study

Standard firefighting procedures call for the arrival of the entire initial assignment (sufficient apparatus and personnel to effectively combat a fire based on its level of risk) within a certain amount of time. This is to ensure that enough people and equipment arrive soon enough to be effective in controlling a fire before substantial damage occurs.

### Analysis of Response Time to Achieve Full-Effective Response Force

While it is important for KF&BD to reach all portions of the City with a single unit for EMS and many other calls for service as rapidly as possible, fire incidents require more than a single resource. An ERF (effective response force or initial full alarm assignment) involves the concentration and spacing of multiple resources arranged (close enough together) so that an initial group of resources can be assembled on the emergency scene within adopted time frames. An initial ERF is the apparatus, equipment, and personnel which will most likely stop the escalation of the emergency for a given risk.

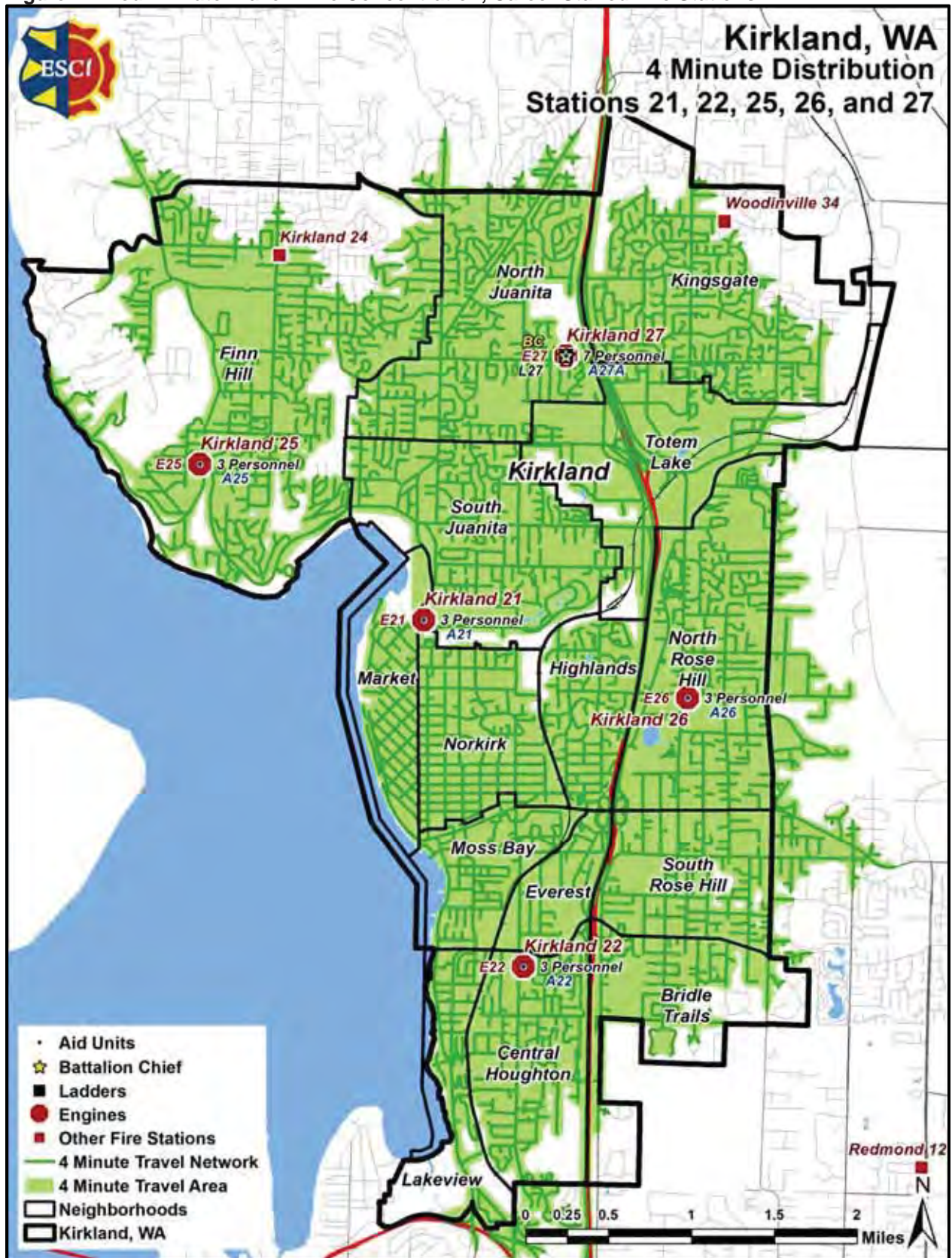
The National Fire Protection Association (NFPA) has published a national fire service peer standard for all or mostly career staffed fire departments.<sup>60</sup> Among other things, *NFPA 1710* contains time performance standards for structure fire response as well as emergency medical response. Each will be discussed individually. Though not a legal mandate, *NFPA 1710* does provide a useful benchmark against which to measure a fire department's performance.

Figure 74 demonstrates the areas in the City of Kirkland that can be reached in four minutes of travel time from KF&BD's five career-staffed fire stations.

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<sup>60</sup> *NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, National Fire Protection Association 2010.



**Figure 74: Four-Minute Travel Time Concentration, Career Staffed Fire Stations\***

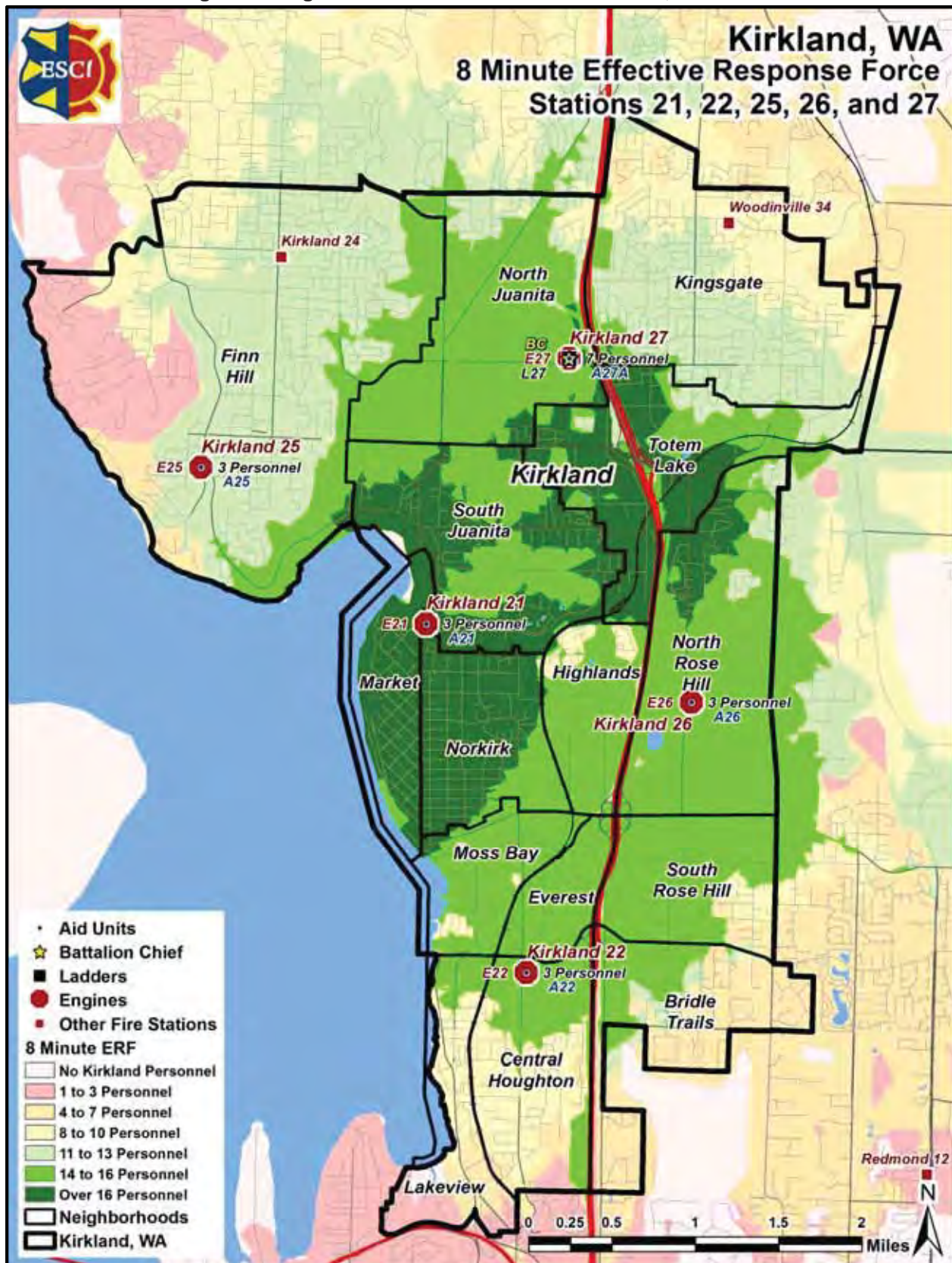
\*New map requested.



There are small pockets of area in the City that require longer than four minutes of travel time to reach. The largest area is in the northwest section of Kirkland in the Finn Hill neighborhood, generally in the area surrounding Fire Station No. 24.

Where Figure 74 showed the areas of the City that could be reached from fire stations with a single fire engine in four minutes, structure fires require more than one fire engine and three personnel. A moderate risk incident involves multiple fire apparatus and firefighters. Figure 75 demonstrates the portions of the City of Kirkland and the number of personnel that can reach each given area in eight minutes of travel time or less.

Figure 75: Eight-Minute Travel Time Concentration, Personnel

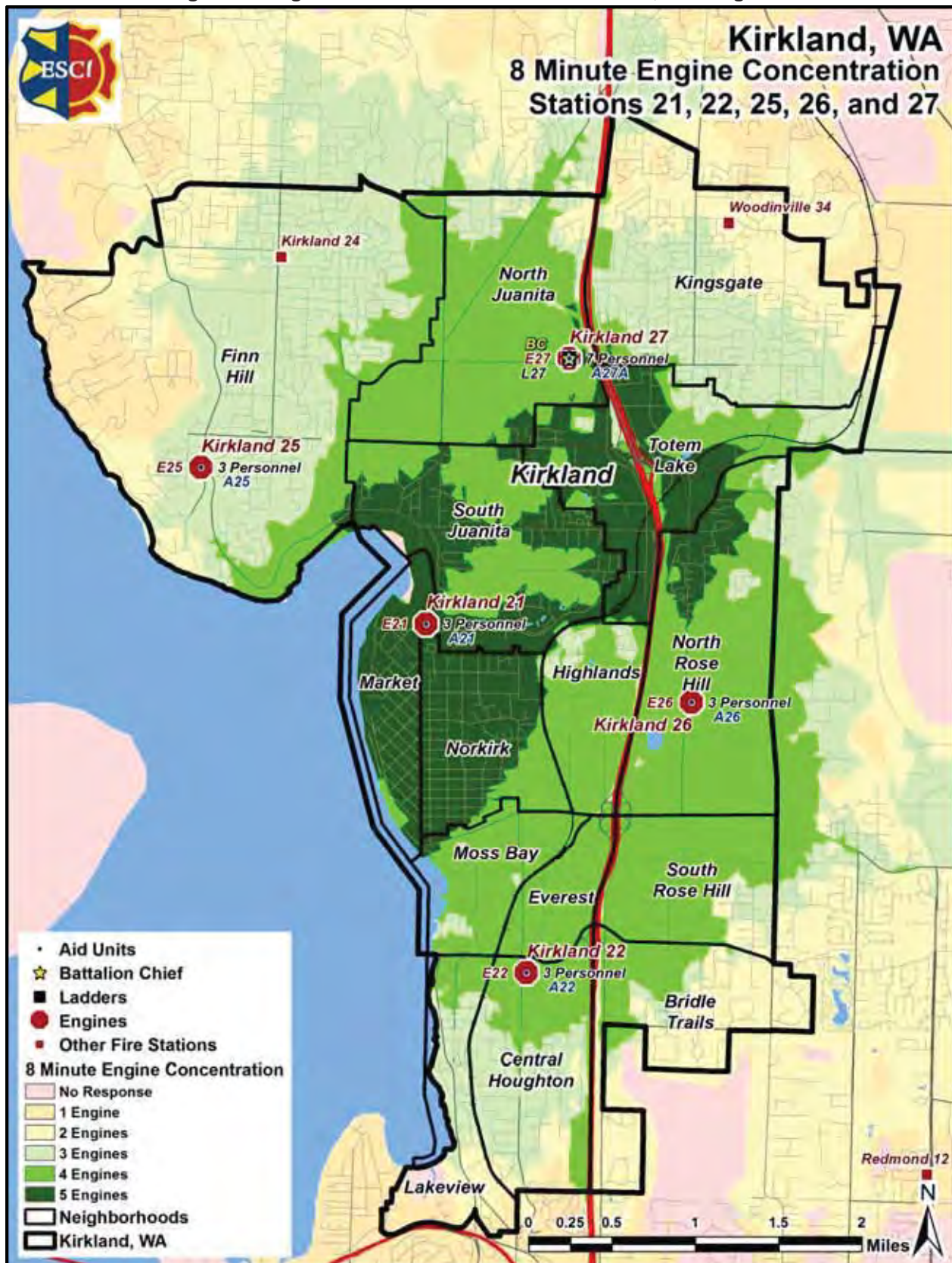


A minimum of three KF&BD personnel can reach all areas of the City in eight minutes or less travel time. Greater numbers are able to arrive in less travel time in the core area of Kirkland where fire stations are more closely spaced and in the area surrounding Fire Station No. 27 because of a higher minimum on-duty staffing for two companies. The analysis shows that in the Finn Hill and the Kingsgate neighborhoods, KF&BD can assemble ten or fewer personnel in eight minutes or less. This is true for the Central Houghton community as well. The difference being that KF&BD has automatic aid units in closer proximity to respond to Houghton. In the north of the City the travel distance for Northshore, unstaffed Kirkland Fire Station No. 24, and the closing by Woodinville of Fire Station No. 34 limit the options for outside resources to arrive in eight minutes or less.

Figure 76 illustrates the areas of the City where fire engines can reach in eight minutes of travel time.



Figure 76: Eight-Minute Travel Time Concentration, Fire Engines



All areas of the City can be reached by a fire engine within eight minutes of travel time over the existing roadway system. Those areas earlier identified as having a greater concentration of incidents in the core areas of Kirkland can be reached in eight minutes of travel time or less by up to five engines. The amount of overlapping coverage is considered to be appropriate given the number of concurrent calls for service and density of higher risk facilities.

Fire engines and aids unit respond to the majority of incidents in the City. KF&BD has two units that are more specialized and that respond to fire and larger, more complex incidents with a battalion chief and ladder truck. The battalion chief responds as the incident commander and a ladder truck for search, rescue, salvage, and overhaul tasks. Figure 77 illustrates the areas of the City where the KF&BD battalion chief and ladder truck can reach in eight minutes or less of travel time. With the ladder truck located at Fire Station No. 27, its eight-minute travel time coverage reaches to the north outside of the Kirkland city limits.



Figure 77: Eight-Minute Travel Time Concentration, Battalion Chief and Ladder Truck

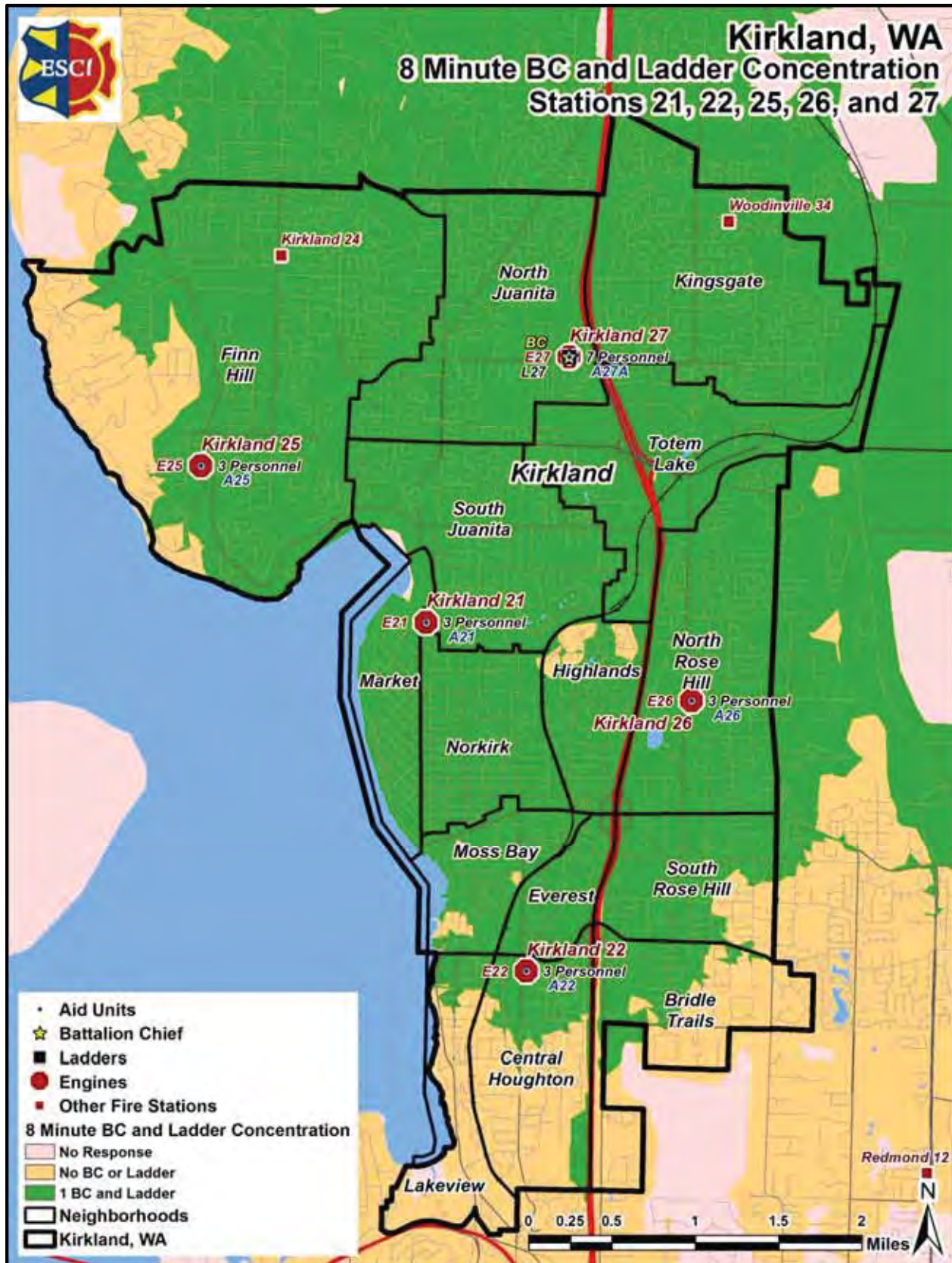
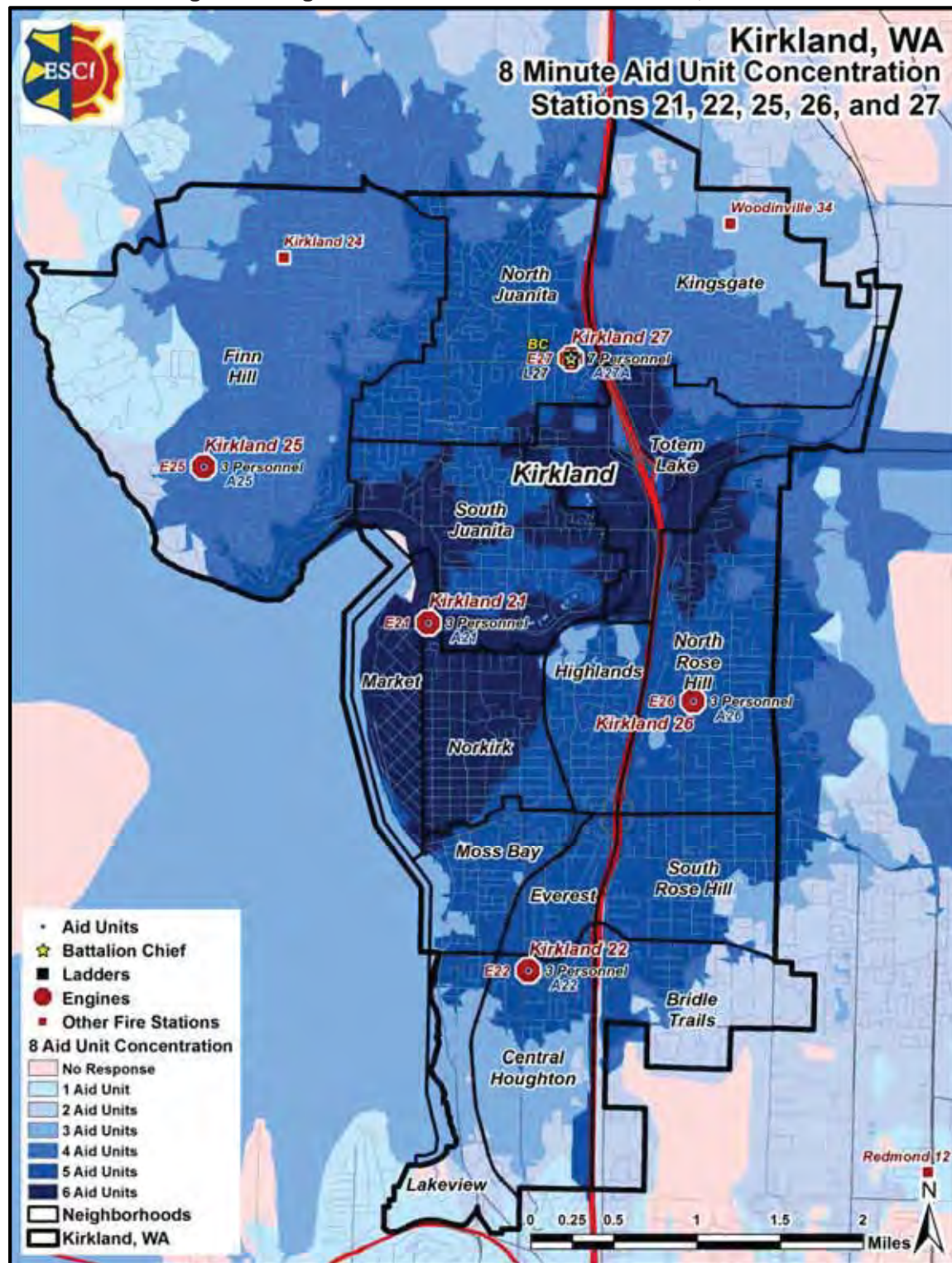




Figure 78 illustrates the areas of the City where a KF&BD aid unit can reach in eight minutes or less of travel time.

Figure 78: Eight Minute Travel Time Concentration, Aid Unit



Virtually all of the City can be reached by an aid unit in eight minutes of travel time or less.<sup>61</sup> An eight minute travel time is used to illustrate overlapping coverage. Those areas of the City identified earlier with the greatest concentration of EMS incidents have the largest overlapping aid unit coverage. Coverage overlap is less of a concern than coverage gaps and provides the needed response units for back to back calls.

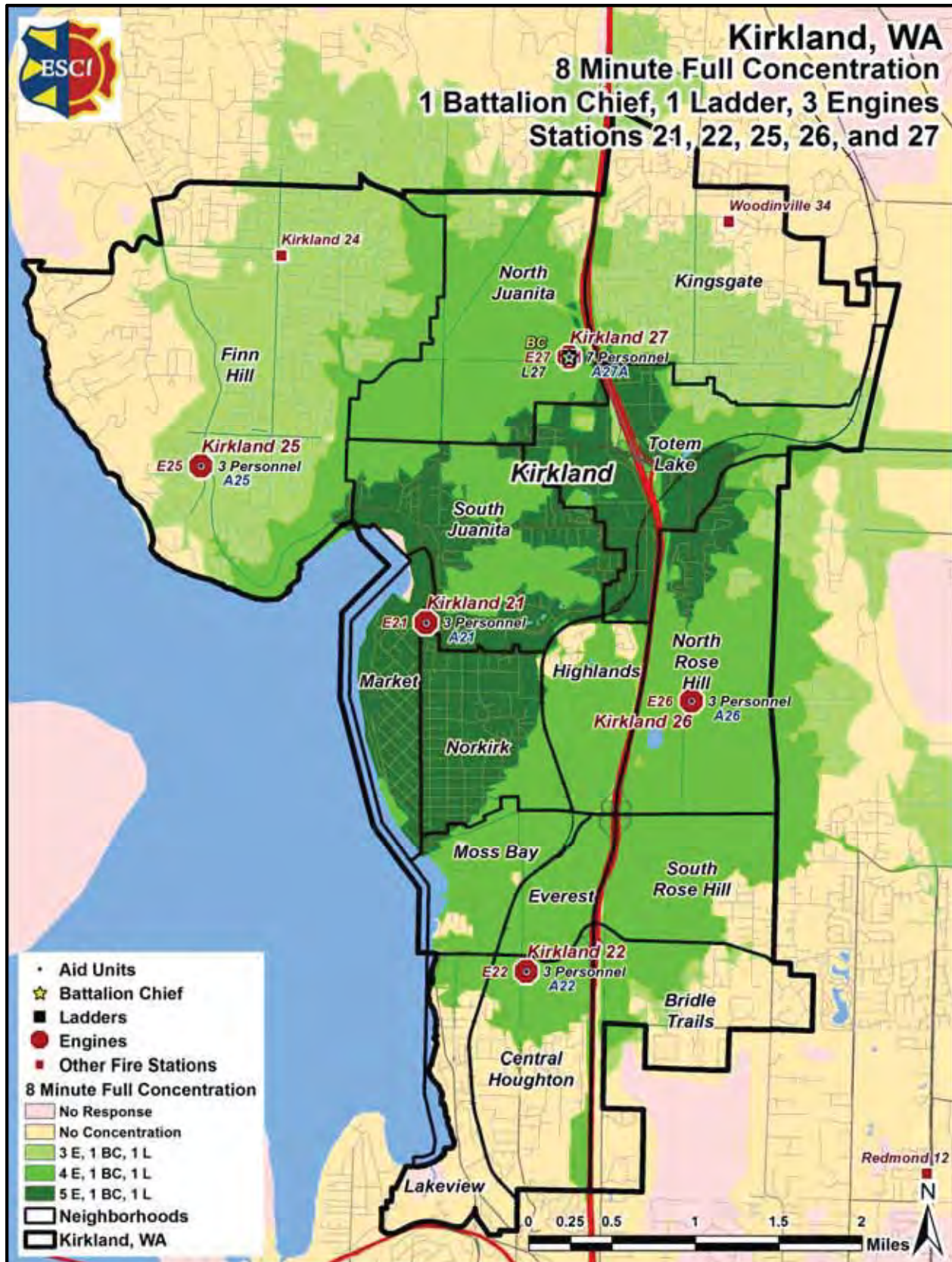
The following map displays the eight-minute travel time concentration for an ERF (effective response force). An ERF for KF&BD involves one battalion chief, one ladder truck, and three engines in eight minutes or less travel time.

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<sup>61</sup> Response to all of the Yarrow Bay Wetlands in Lakeview is accessible in eight minutes of travel time.



Figure 79: Eight-Minute Travel Time Concentration, Effective Response Force



### Fire Station (Siting) Relocation

KF&BD has adopted total response time objectives of:

- Five (5) minutes and thirty (30) seconds for the first fire engine to arrive when responding to a fire suppression incident (90) percent of the time
- Five (5) minutes for the first emergency medical unit with at least two (2) Emergency Medical Technicians to an emergency medical incident (90) percent of the time

Included in the total response time is the call processing time interval for the communications center of sixty (60) seconds and a turnout time of sixty (60) seconds. ESCI used four minutes of travel time to gauge which geographic areas of the City can be reached. Figure 74 shows the areas of the City that could be reached from fire stations with a single fire engine in four minutes, structure fires require more than one fire engine and three personnel. Most of Kirkland can be reached by an engine or aid unit in four minutes of travel time or less. The only area with longer travel times than four minutes are located in the area served by Fire Station Nos. 24 and 25.

KF&BD's fire stations are generally in the best physical locations to serve the entire City. All of the geographic areas of the City can be reached from one or more of the fire stations by an aid unit or engine in eight minutes travel time or less with a minimum of three KF&BD personnel. Fire engines and aids unit respond to the majority of incidents in the City with more complex incidents including a battalion chief and ladder truck. Some sections in the south and northwest of Kirkland are outside of eight minutes travel time for the battalion chief and ladder truck. A moderate risk incident involves multiple fire apparatus and firefighters. Figure 75 demonstrates the portions of the City of Kirkland and the number of personnel that can reach each given area in eight minutes of travel time or less.

There are options that the KF&BD can use to improve coverage to the northwest (Finn Hill) area of the City:

- Combine Fire Station Nos. 24 and 25 in a new location
- An additional (new) fire station
- Staff Fire Station No. 24 with career personnel
- Establish and maintain a shared facility with Northshore FD

Combining Fire Station Nos. 24 and 25 at a better location could result in, shorter travel time in Finn Hill and greater geographic coverage in the Finn Hill neighborhood. This would not resolve the need for a fire or EMS unit and additional personnel resources in this area of the City. There is no increase in the number of personnel available for incidents that require more than a

single unit. Either adding a new fire station or staffing Fire Station No. 24 with full time personnel is considered to be cost prohibitive. Annual personnel services cost of one full-time staffed fire engine with three firefighter/EMTs is approximately \$2.5 million. Above the expenditures for personnel services are capital apparatus, administrative and support, training, and supply costs.

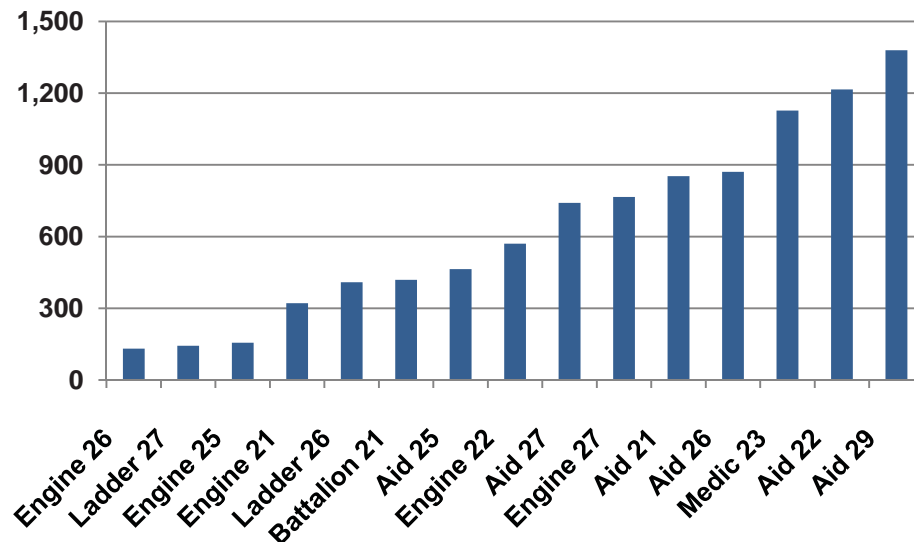
A shared or jointly staffed new facility in a location that would serve Northshore and Kirkland has benefits and cost avoidance for both fire departments. It would:

- Reduce travel time to an underserved area of Kirkland and Northshore
- Add an apparatus to an underserved areas of the City
- Add an apparatus for response to incidents requiring multiple units
- Make the total number of personnel equal to KF&BD's full alarm assignment staffing
- Cost much less than constructing a fire station independently
- Improve service demand coverage

### Reliability Study

The workload of emergency apparatus can be a factor that affects overall service delivery. In the following figures ESCI examines various aspects of emergency workload for KF&BD.

**Figure 80: Number of Responses by Apparatus, September 2010 – August 2011**



Aid 29 had the highest number of incidents for the year studied with 1,380 responses for an average daily calls for service of 3.78. The average daily number of responses for KF&BD apparatus was 1.56, with a median of 1.27.

While the number of responses expresses apparatus numerically, it is one dimensional. Utilization is used to measure unit productivity, comparing the available hours of a resource (engine, aid unit, or ladder) with the amount of time a unit is actively involved with response activity. Measuring unit hour utilization (UHU) determines the percentage of unit hours actually consumed in productivity compared with the total available hours. Figure 81 displays the total hours and unit hour utilization (UHU) rate for KF&BD apparatus.

**Figure 81: UHU (Unit Hour Utilization), September 2010 – August 2011**

Apparatus	Hours	Count	UHU
Air Unit 21	36:49:36	18	0.42%
Aid 24	53:53:06	97	0.62%
Engine 26	56:58:44	131	0.65%
Ladder 27	47:29:26	143	0.54%
Engine 25	74:17:30	156	0.85%
Engine 21	148:28:57	321	1.70%
Ladder 26	158:08:42	409	1.81%
Battalion 21	158:25:58	419	1.81%
Aid 25	337:43:08	464	3.86%
Engine 22	231:16:18	570	2.64%
Aid 27	437:27:44	741	4.99%
Engine 27	293:39:34	766	3.35%
Aid 21	608:16:23	853	6.94%
Aid 26	507:19:28	871	5.79%
Medic 23	712:27:46	1,127	8.13%
Aid 22	753:23:25	1,216	8.60%
Aid 29	817:44:48	1,380	9.34%
<b>Total</b>	<b>5,992:47:47</b>	<b>10,678</b>	<b>68.41%</b>

Although Aid 21's call count is approximately 62 percent of Aid 29's, Aid 21's UHU is 74 percent of Aid 29's. The larger UHU indicates that on an average incident Aid 21 is committed longer per call. Aid 21's longer commitment per call appears to be related to a longer transport distance. The more extended the time on an incident the less time that Aid 21 is available for another call for service and the greater the likelihood of another apparatus having to respond.

In the next figure, ESCI summarized workload by the number of apparatus per incident.

**Figure 82: Apparatus Commitment per Incident, September 2010 – August 2011**

Number of Apparatus	Percentage of Calls
1	69.81%
2	22.40%
3	4.71%
4	1.12%
5	1.09%
6	0.38%
7	0.18%
8	0.03%
9	0.05%
10	0.11%
11	0.05%
12	0.01%
14	0.01%
15	0.01%
18	0.01%
19	0.01%

While the majority of incidents during the one-year study period required only one apparatus (69.81 percent), 30.19 percent of responses required two or more. Approximately 3.08 percent of the time, four or more units were engaged on a single incident. There were 17 times between September 2010 and August 2011 where ten or more emergency response units were committed to a single incident. Incidents where more than one unit is required reduce available apparatus and personnel for other calls for service. Additional apparatus often travel a greater distance and leave more of the City under protected.



Call Concurrency

Another way to look at resource workload is to examine the periods that multiple calls happen within the same period of time.

**Figure 83: Concurrent Calls, September 2010 – August 2011**

Call Count	Percentage of Calls
1	34.86%
2	31.34%
3	19.42%
4	8.69%
5	3.48%
6	1.50%
7	0.46%
8	0.11%
9	0.01%
10	0.04%
11	0.03%
12	0.01%
14	0.03%
23	0.01%

Incidents occurred singularly 34.86 percent of the time between September 2010 and August 2011. Nearly two-thirds (65.14 percent) of the time two or more incidents were happening simultaneously; 33.81 percent of the time, three or more. When two calls for service occur simultaneously resources are a minimum of six personnel below the number to meet KF&BD's identified 19 for an initial full alarm assignment.

Failure rate is the percentage of calls for which a unit/station is unavailable due to handling an existing call where it otherwise would have been dispatched as the primary unit. When a fire or EMS unit is unavailable to respond in its first due area there is a domino effect, in that outside resources are pulled in for coverage, thus leaving their own areas vulnerable to higher failure rates. ESCI attempted to determine the number of actual or estimated failure rates for KF&BD fire stations and individual companies from the data provided. Data was inadequate to conduct an analysis. A failure rate over ten percent will cause performance objectives at the 90<sup>th</sup> percentile to be missed, even if resource distribution keeps travel time low. ESCI recommends that failure rate by fire station and apparatus be tracked.

### Response Performance

The ultimate goal of any emergency service delivery system is to provide sufficient resources (personnel, apparatus, and equipment) to the scene of an emergency in time to take effective action to minimize the impacts of the emergency. This need applies to fires, medical emergencies, and any other emergency situation to which the fire department responds.

### System Reflex Time Performance

Throughout this document, certain descriptive statistical measures are used which may not be familiar to all readers. In an effort to reduce confusion or the drawing of inaccurate conclusions, ESCI provides a brief explanation of these terms below. The measures most often used which require clarification are average and percentile.

#### Average

The average measure is a commonly used descriptive statistic, also called the mean of a data set. It is a measure to describe the central tendency, or the center of a data set (mean). The average is the sum of all the data points in a set, divided by the total number of data points. In this measurement, each data point is counted and the value of each data point has an impact on the overall performance. Averages should be viewed with a certain amount of caution because the average measure can be skewed if an unusual data point, known as an outlier, is present within the data set. Depending on the sample size of the data set, the skewness can be either very large or very small.

#### Percentile

With the average measure, it is recognized that some data points are below the average and some are above the average. The same is true for a median measure which simply arranges the data set in order and finds the value in which 50 percent of the data points are below the median and the other half are above the median value. This is also called the 50th percentile.

When you deal with percentages, the actual value of the individual data does not have the same impact as it did in the average. The reason for this is that the fractile is nothing more than the ranking of the data set. The 90th percentile means that 10 percent of the data is greater than the value stated and all other data is at or below this level.

Higher fractile measurements are normally used for performance objectives and performance measurement because they show that the large majority of the data set has achieved a



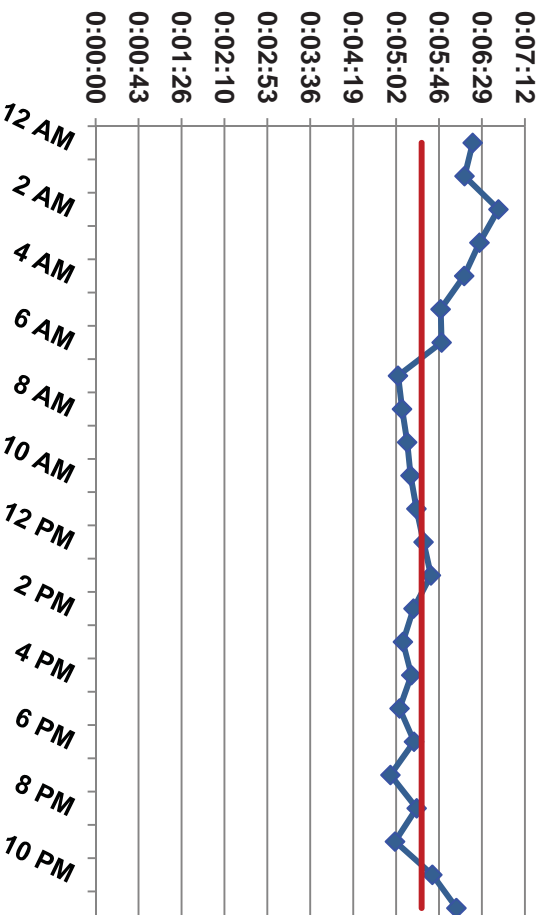
particular level of performance. This can be compared to the desired performance objective to determine the degree of success in achieving the goal.

ESCI recommends that KF&BD use fractile for benchmarking and measuring response components.

#### Current Response Time Performance

The following series of charts displays emergency response time performance for KF&BD from September 2010 through August 2011. Figure 84 illustrates the average response time frequency for KF&BD for the one-year period.

Figure 84: Average Response Time Frequency, September 2010 – August 2011



The most frequently recorded response time was within the 5-minute range, while the average response time was 5 minutes 28 seconds (05:28).

In the next figure, response time is summarized by incident type. Average and percentile response times are displayed (Figure 85).

Figure 85: Response Time Frequency by Incident Type, September 2010 – August 2011

Incident Type	Average	90 <sup>th</sup> Percentile
Fire	0:07:40	0:11:46
Medical	0:05:18	0:08:29
Other	0:05:42	0:08:32
All	0:05:28	0:08:42

Average and 90<sup>th</sup> percentile response times in Figure 85 are for the arrival of the first unit. For fire and some EMS calls for service there is a need to have more than one unit.

#### *Non-Emergency and Automatic Alarm Response*

Included in the more than 7,000 incidents to which KF&BD annually responds are a large number of events of a non-emergency nature. Many are medical related responses while others involve automatic alarm systems that falsely report an emergency. Still others fall into a general category of incidents that, while requiring fire department assistance, are not emergent situations or are simply mistaken alarms.

In many cases it is difficult to determine whether an incident is an actual emergency event until responders arrive at the scene. In others, call screening and prioritization by dispatchers can often determine the severity of a situation, from which pre-defined response protocols dictate the number and type of response resources that will respond. The challenge becomes one of balancing the need to send sufficient resources against the importance of limiting unnecessary responses.

Fire departments have historically adopted a practice of dispatching multiple units to a call in case the event should prove to be of a serious nature. The approach is appropriate in many situations, especially those of a high-risk nature. However, appropriately limiting the number of responding units, as well as the speed with which they respond, should also be considered. Fewer responding vehicles limits costs, reduces safety risks to firefighters and the public associated with emergency vehicle response, and keeps valuable response resources available for other incidents. An alternative is to have the first fire unit respond with lights and siren and all other fire apparatus travel with the traffic flow. Upon arrival of the first unit, it is then determined if additional units are needed or if they can be released back to quarters.

KF&BD adopted response protocols are based on risk and includes a policy of a single response unit for automatic alarms that is facility specific by business type.

#### *Emergency Medical Response Deployment*

Some medical emergencies necessitate the response of a full complement of equipment and personnel. The most visible example is a cardiac arrest situation, which requires three or more responders, at a minimum, to effectively manage.

However, many other medical calls can be handled adequately by only one or two responders. The highest percentage of calls in this category is those that occur at adult foster care and nursing facilities, which are often non-emergent assistance requests. Rather than sending a fire engine and full complement of firefighters to these calls, a limited response may be in order. A number of fire departments have adopted a deployment strategy for EMS incidents that consists of a single paramedic, driving a sport utility vehicle, dispatched to lower priority calls.

The key to the success of this methodology is effective call screening and prioritization by 9-1-1 operators that are trained in MPD (Medical Priority Dispatch) protocols. Properly applied, these procedures have proven to identify those calls that warrant a higher level of EMS response as contrasted to those that may be adequately managed by fewer responders.

#### Automatic Fire Alarm Response Deployment

Automatic fire alarms are commonly found not only in high risk commercial buildings, but in private homes, small commercial occupancies and construction sites. The alarms are activated by smoke or heat detection devices and offer the important advantage of early notification of a fire's occurrence. Fire alarms are also prone to malfunction and false activation. The problem is particularly common at construction sites where conditions are changing continuously.

Most fire departments experience a high percentage of false automatic alarm activations and the need to respond to them. Deployment decisions are made based on various factors including the type of building use and level of risk exposure, particularly to loss of life. While historic practices have been to dispatch a complete fire response assignment to alarms in preparation for a worst-case scenario, current trends are toward moderation of the deployment practices.

Criteria can be established that identifies risk levels and related factors with which response decisions are made. The approach may be to send a full complement of units but limit which, if any, travel with lights and sirens (code 3). Alternatively, only a single unit may be assigned to assess a situation. In some instances, it may be appropriate to simply have a single responder go to the address to evaluate the conditions. Recently, a fire department in Nevada made the decision to withhold response to automatic fire alarms entirely absent "visual verification" of a fire by someone at the location. The practice has been expectedly controversial and is offered only as an example of one approach. Another fire department has recently implemented a telephone verification procedure. The practice requires that fire alarm monitoring personnel attempt verification of an emergency by telephone within 90 seconds of receipt of the alarm and

prior to relaying the call to the 9-1-1 operator. If verification cannot be obtained, a normal response is dispatched.

### Other Incident Types

In addition to the above examples, a host of other non-emergency situations are presented to fire departments on a daily basis. Although these are minor in nature, they often warrant some kind of action, and may include odor complaints, pet related problems, smoke detector issues, or back yard burning complaints, to name but a few. Like automatic alarm and EMS responses, practical decision-making needs to be applied regarding how and if the fire department is going to respond to these events. Appropriate protocols can be developed regarding many of the call types, and the responders themselves should be empowered to make deployment decisions when warranted.

In conjunction with call screening and prioritization by dispatchers and modified response for automatic alarms is development and adoption of an alarm ordinance. In an effort to reduce false alarms, the City of Kirkland Police Department developed the *False Alarm Reduction Program*. To operate an alarm system on any premise within the City of Kirkland individuals must register the system. This applies to both monitored and non-monitored security systems. Application information indicates that permit information includes fire alarms while the municipal ordinance and deterrents are applicable only to police response to security alarms. An option for the City is to expand the ordinance to include response to false, malicious, or repeat fire alarms. ESCI recommends that Chapter 21.35A of the Kirkland Municipal Code be expanded to include response by KF&BD to repeat false or malicious fire alarms.

### **Future Service Demand**

ESCI completed a needs assessment of the KF&BD based on future system demand projections as developed through an analysis of population growth projections, service demand projections, and a summary community risk analysis. The process of forecasting growth within the KF&BD service area begins with an overview of current demographics. Data from the U.S. Census Bureau, City and County comprehensive plans, County and the Puget Sound Regional Council growth allocations were used in this section of the study.

KF&BD emergency services while not meeting its stated response time objectives is doing a good job of serving the fire and EMS needs of the City. The information that follows is beneficial in understanding where changes can be made to bring the fire department closer to their response goals.

People and Households

At the time of incorporation in 1905, the City of Kirkland's population was approximately 530.<sup>62</sup> A chronological history of the City's population for 100 years is shown in Figure 86.

**Figure 86: City of Kirkland Population History, 1900 – 2000**

Census Year	Population	Percent of Change
1900	264	—
1910	532	101.52%
1920	1,354	154.51%
1930	1,714	26.59%
1940	2,084	21.59%
1950	5,718	174.38%
1960	8,541	49.37%
1970	15,249	78.54%
1980	18,779	23.15%
1990	40,052	113.28%
2000	45,054	12.49%

The City of Kirkland consolidated with the neighboring town of Houghton on July 31, 1968, to form one city. Kirkland annexed the neighborhood of Totem Lake in 1974 and the neighborhoods of South Juanita, North Rose Hill, and South Rose Hill in 1988. The annexation in 2011 caused a dramatic population increase to an estimated 80,505, up from 49,620 in 2010. The most recent ten-year history of Kirkland's population from 2001 and 2011 is shown in Figure 87.<sup>63</sup>

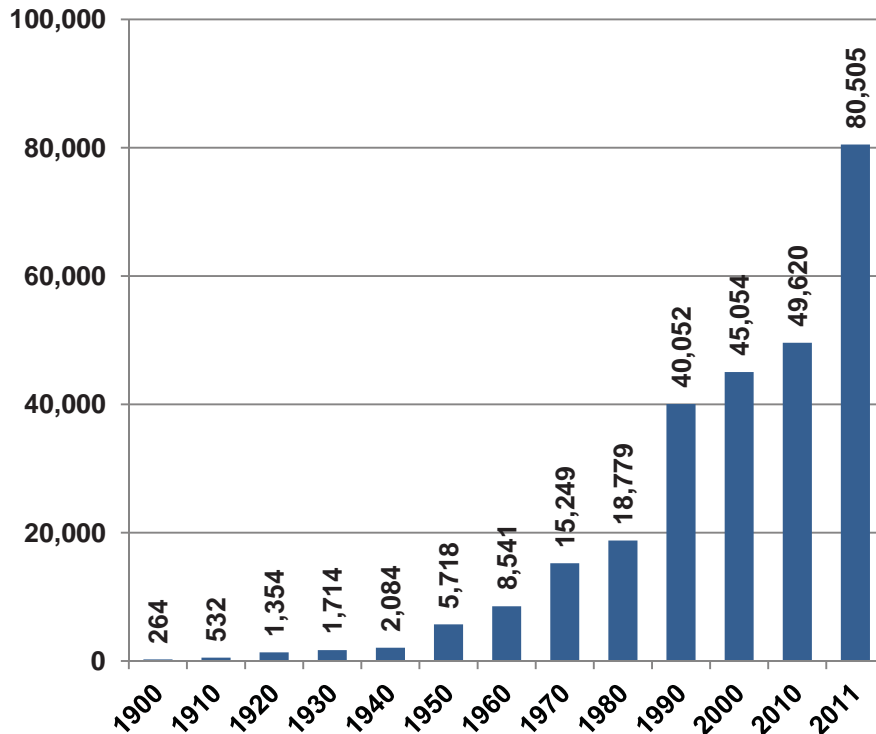
**Figure 87: City of Kirkland Population History (Table), 2001 – 2011**

Year	Population	Percent of Change
2001	45,770	—
2002	45,790	0.04%
2003	45,630	-0.35%
2004	45,800	0.37%
2005	45,740	-0.13%
2006	47,180	3.15%
2007	47,890	1.50%
2008	48,410	1.09%
2009	49,010	1.24%
2010	49,620	1.24%
2011	80,505	62.24%

<sup>62</sup> Ibid.<sup>63</sup> Ibid.

Figure 88 is the entire population history for the City of Kirkland from incorporation in 1900 to 2011.

**Figure 88: City of Kirkland Population History (Graphic), 2001 – 2011**



Dramatic increases in population coincide with consolidations and annexations. Consolidations and annexations include:

- In 1968 Kirkland consolidated with the town of Houghton (July 31, 1968)
- Annexation of the neighborhood of Totem Lake in 1974
- Annexation of the neighborhoods of South Juanita, North Rose Hill, and South Rose Hill in 1988
- Annexation of the Juanita, Finn Hill, and Kingsgate neighborhoods in 2011

Prior to the annexation of 2011, KF&BD was already providing fire and EMS to King County FD #41. While the annexation added three areas to the City of Kirkland, only the properties from Woodinville (Fire District #36) and Redmond (Fire District #34) involved an increase in service area. Figure 89 gives a historical perspective of the population of the City and three areas that were annexed in 2011.

**Figure 89: KF&BD Service Area Population, 2008 – 2011<sup>64</sup>**

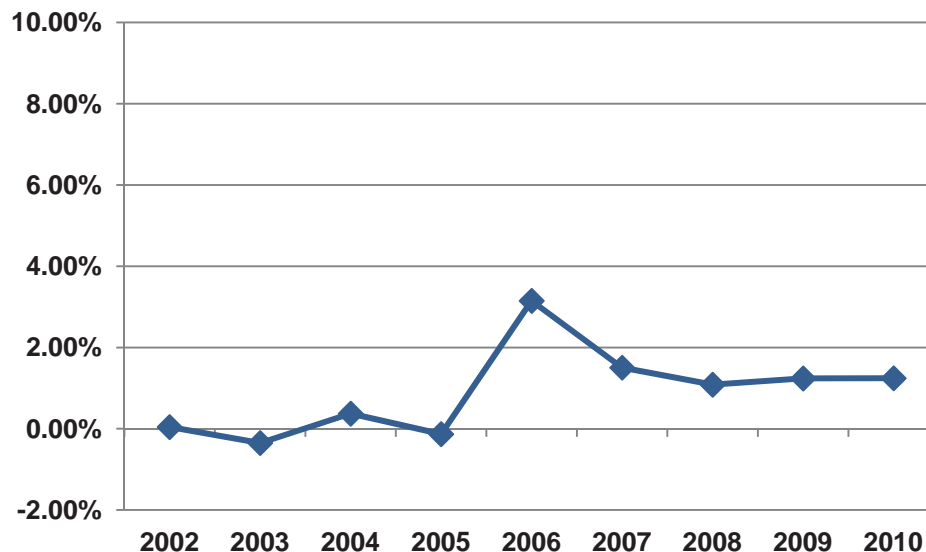
Year	2008	2009	2010	2011
Kirkland	48,410	49,010	48,787	49,020
Fire District #41	25,309	25,622	25,506	25,585
Fire District #36 (Woodinville)	0	0	0	5,835
Fire District #34 (Redmond)	0	0	0	397
<b>Population Served</b>	<b>73,719</b>	<b>74,632</b>	<b>74,293</b>	<b>80,837</b>

The next table shows the total population in 2010 and 2011 of the areas annexed to Kirkland in 2011.

**Figure 90: Annexation Area Population, 2010 – 2011**

Date	Population
As of April 1, 2010	31,718
As of April 1, 2011	31,816

Between 2001 and 2011 Kirkland's population has increased over 75 percent; 62 percent of the population increase occurred in 2011. A visual presentation of the annual percent of population change from 2001 to 2010 is shown in Figure 91.

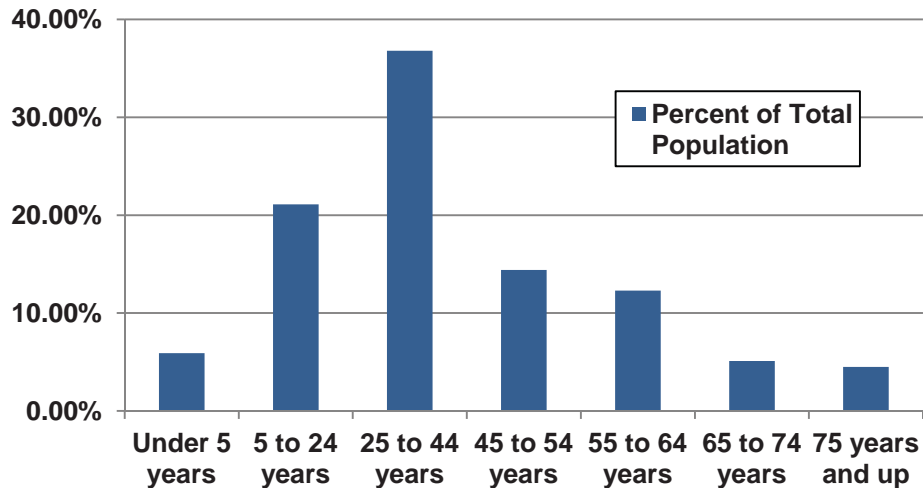
**Figure 91: Annual Percent of Population Change, 2002 – 2010**

<sup>64</sup> 2010 data as of April 1, 2010, Washington State Office of Financial Management. Population data in 2008 and 2009 is an estimate based on Kirkland population trends for the same years and 2010 and King County FD #41 population estimate of 25,506.



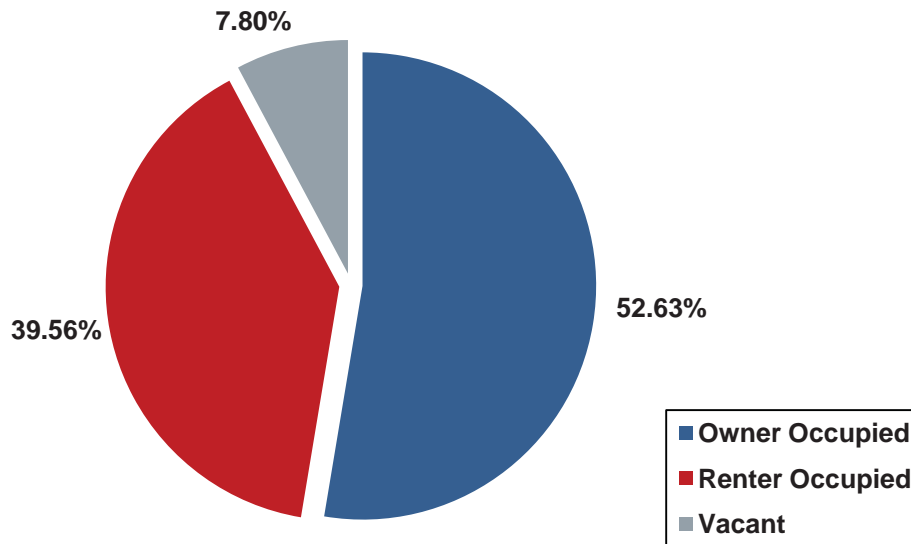
The following chart (Figure 92) distributes the population into age groups based on the census information for 2010.

**Figure 92: Population Distribution by Age, 2010**



Approximately 9.6 percent of the population is 65 years of age or older and 5.9 percent of the population is under 5 years of age, placing a total of 15.5 percent of Kirkland's population in the target age groups that pose the highest risk for fatalities in residential fire incidents.

The composition of housing is one indicator of levels of service demand. Areas with higher housing vacancies and rental property (outside of seasonal resort and higher educational institutional areas) correlate with higher demands upon the fire department and emergency services in general. The following chart details housing by occupancy for Kirkland.

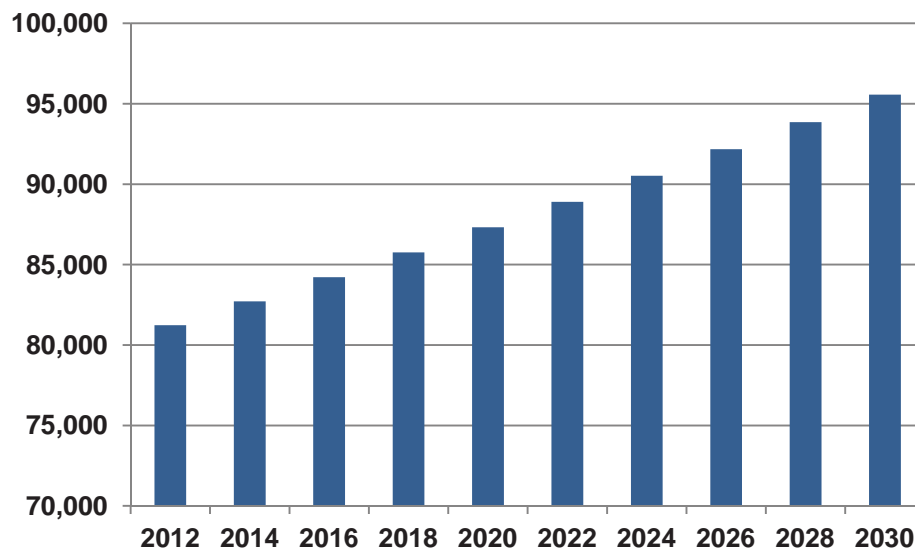
**Figure 93: Housing Occupancy Status, 2010**

Approximately 53 percent of the housing units in Kirkland are owner occupied. By comparison, 55 percent of King County and 58 percent of Washington homes are owner occupied.

#### Population Growth Projections

An interpretation of census and community development data was used to develop a population forecast for the City of Kirkland. As indicated earlier, the population of Kirkland increased significantly in 2011. Information received from local planning officials indicates that they anticipate additional growth, albeit at a much slower rate than previously experienced.

ESCI typically develops a forecast based on several years of census experience. In the following figure, ESCI uses historical Census data for 2000 through 2010 for Kirkland to create a mathematical forecast from 2010 through the year 2030. The historical growth was applied to Kirkland's total population following the annexation that occurred in 2011.

**Figure 94: Kirkland Forecast Population, 2012 – 2030**

The mathematical projection shows Kirkland and KF&BD's service area population growing to 95,563 people in 2030. This is a nearly 19 percent increase in the population of Kirkland, which represents an annual increase of 0.91 percent. While census-based population projections provide a mathematically based estimate of future population based on historical data, they often fail to account for expected trends in the growth rate of an area. These changes often result from redevelopment, annexation, changes in employment capacity, or other socio-economic factors not reviewed in a census-based projection.

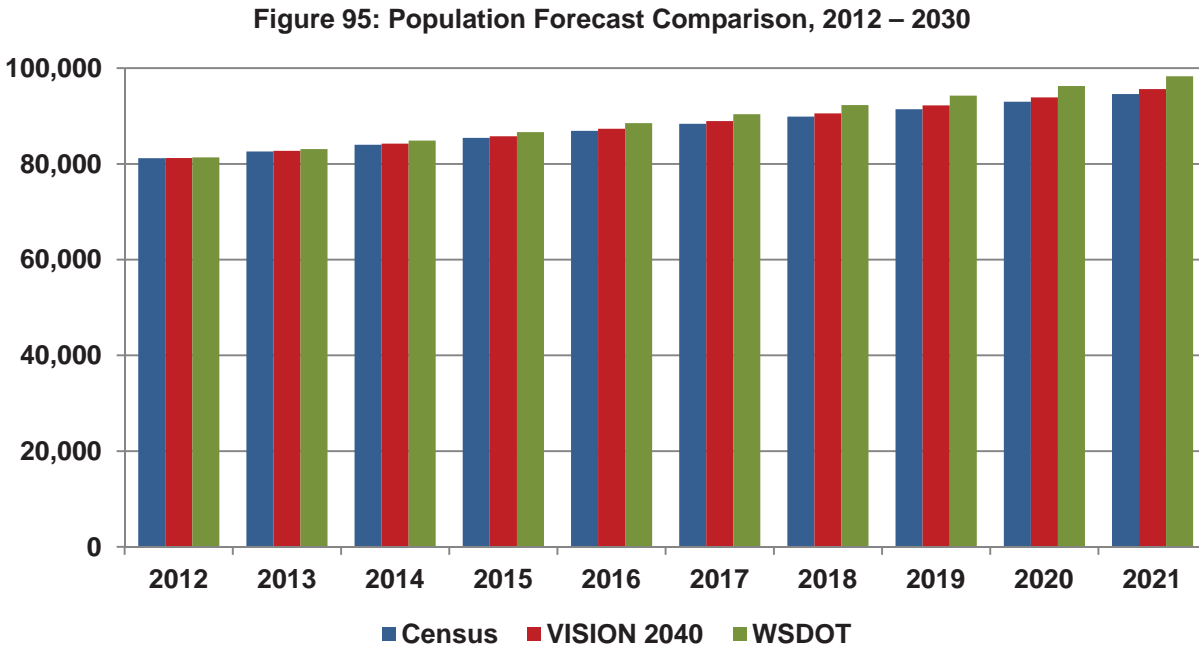
The 2003 Kirkland Community Profile Projected Target Population in 2030 at 62,086<sup>65</sup> and the City of Kirkland 2011 – 2012 Final Budget Document lists a population of 86,000 in 2020.<sup>66</sup> Kirkland has surpassed the target population and is nearly at the forecast population in the City's current year budget document. These forecasts of population were based on assumptions that have changed since the annexation of June 2011.

The Washington Department of Transportation (WSDOT) forecasts population growth for King County of 25.56 percent between 2000 and 2030, an average annual population growth of 0.85 percent. King County's annual population forecast by WSDOT of 0.85 nearly mirrors Kirkland's ten-year (2000 – 2010) annual population growth of 0.91. Estimates of population growth for King County based on VISION 2040 for the 40-year planning period is 42.3 percent; an annual rate of 1.06 percent.

<sup>65</sup> Population forecast is based on the 2022 Growth Management Planning Council housing targets.

<sup>66</sup> Ibid.

Figure 95 compares the Washington Department of Transportation population projection for King County, the ten-year historical Kirkland population growth, and the annual average growth from VISION 2040 from 2012 to 2030.<sup>67</sup>



It is not the intent of this study to be a definitive authority for the projection of future population in Kirkland but rather to base our recommendations for future fire protection needs on a reasonable association with projected service demand. Since we know that the service demand for emergency agencies is based almost entirely on human activity, it is important to have a population-based projection of the future size of the community. While we can see some variation in the population projections discussed here, one thing is certain—KF&BD will continue to be an emergency service provider to a growing population, likely reaching 95,000 by 2030. Planning should begin now to maintain the resources needed to meet the continuing demand for services.

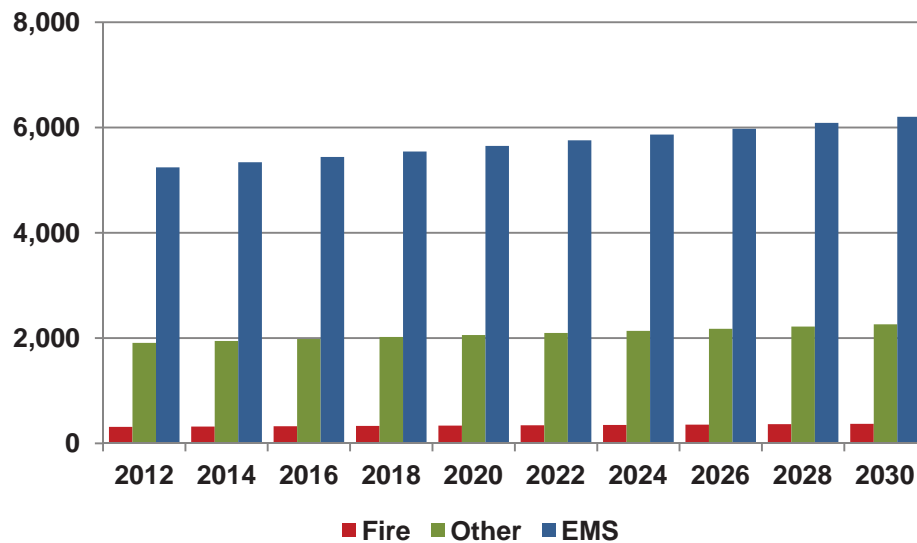
### Service Demand Projections

In evaluating the deployment of facilities, resources, and staffing, it is imperative that consideration be given to potential changes in workload that could directly affect such deployment. Any changes in service demand can require changes and adjustments in the deployment of staff and resources in order to maintain acceptable levels of performance. For

<sup>67</sup> Note: Population forecast data did not include the annexation to Kirkland in 2011.

purposes of this study, ESCI used the average projected growth rate from three sources (U.S. Census, VISION 2040, and WSDOT) of 0.94 percent and multiplied this by the incident rate derived from a five-year history (2005 – 2009) of incident per capita to identify potential workload through the year 2030. The results of the analysis are shown in the following chart and table.

**Figure 96: Projected Workload by Incident Type, 2012 – 2030**



The increase in actual fire incidents is forecast to be relatively flat during the study period, but this is a reflection of trends for fire incident rates per capita. It is believed that the trend is a result of improvements made in building codes and public fire education over the last several decades. EMS is expected to continue to be the predominate factor affecting service demand. Other emergency service calls not involving actual fires are forecast to increase in part due to the use of automatic fire alarm and water flow systems.

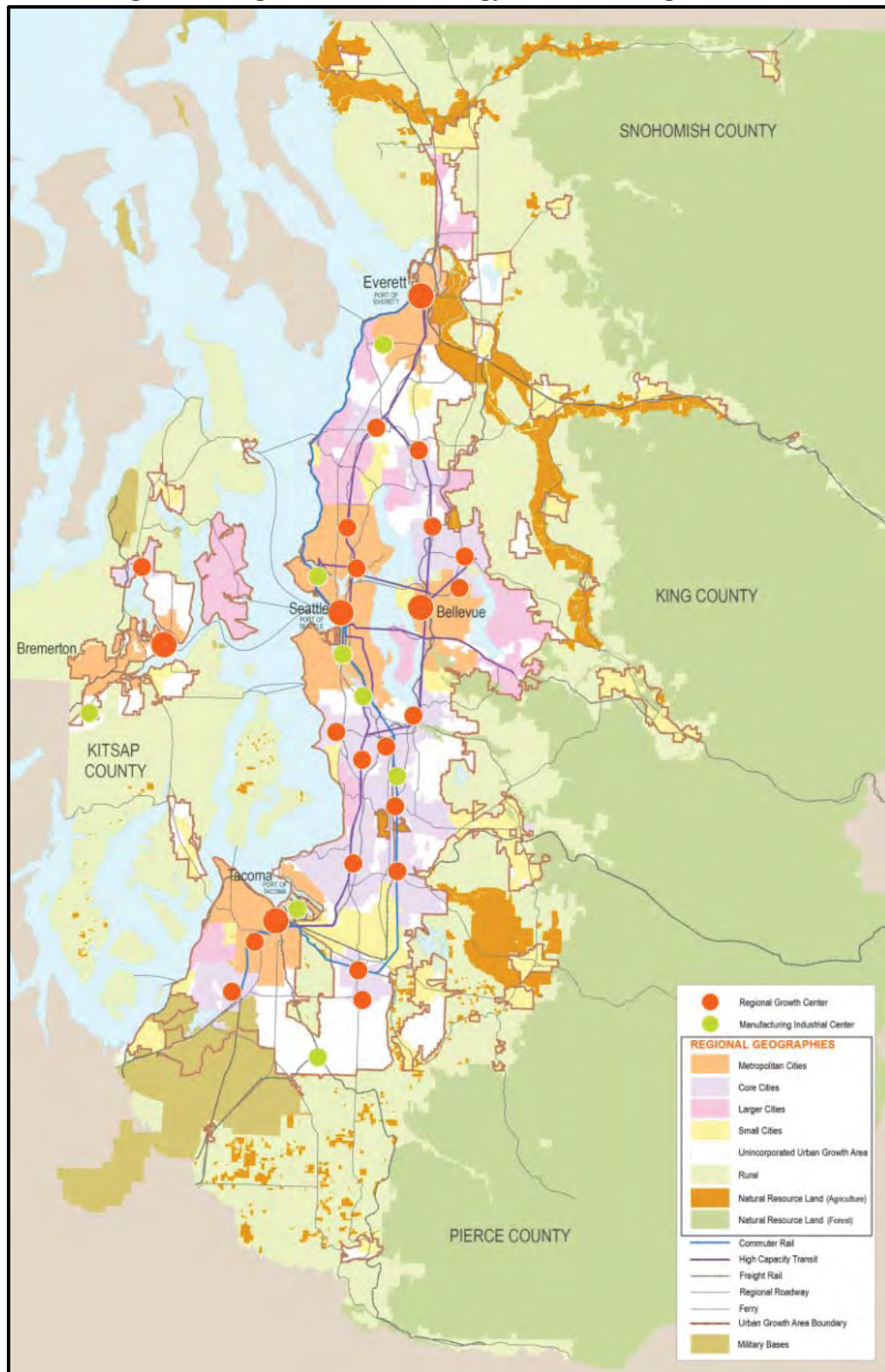
ESCI used GIS data from Kirkland and Puget Sound Regional Government and the City Comprehensive plan to examine how future land use planning and development might impact service demand for KF&BD. According to the 2009 VISION 2040 document, “King County’s Core Cities are expected to accommodate a much larger share of King County’s growth than Core City shares of Kitsap, Pierce and Snohomish counties.”<sup>68</sup> A strategy in the study focuses the region’s employment and housing growth into both metropolitan and core cities. Kirkland is identified as one of the regional growth centers. Core centers are intended to attract a greater

<sup>68</sup> VISION 2040, PSRC (Puget Sound Regional Council), December, 2009, page 14.

percentage of residents and businesses with a proximity to services and jobs, a variety of housing types, access to regional amenities, high quality transit service, and other advantages.<sup>69</sup> The following map shows the various growth centers in Central Puget Sound.

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<sup>69</sup> Ibid.

**Figure 97: Regional Growth Strategy for Central Puget Sound<sup>70</sup>**<sup>70</sup> Ibid.



Kirkland planning documents list:

- 7,000 gross acres of land in Kirkland
- The developable land use base excludes all existing public rights-of-way
  - There are 5,200 net acres of land in Kirkland
- Total developable land use base in Kirkland:
  - 72 percent is zoned for residential use and 28 percent is zoned for non-residential uses
  - Approximately 64 percent of the developable land use base is actually developed with residential uses
  - Since 1991, residential land uses have increased 13 percent
  - Approximately 30 percent of the developable land use base is actually developed with non-residential uses
  - Parks and open space uses account for 8 percent
  - Vacant land accounts for 5 percent of the Kirkland land use base
- Kirkland has approximately 15,266,000 square feet of existing floor area dedicated to non-residential uses. Of that developed total:
  - 4,906,000 (42 percent) are office uses
  - 3,464,000 (30 percent) are commercial uses
  - 3,349,000 (29 percent) are industrial uses

The largest percentage of commercial and industrial uses is located in the Totem Lake neighborhood and the largest percentage of office uses is located in the Lakeview neighborhood.

### Community Risk Analysis

The fire service assesses the relative risk of properties based on a number of factors. Properties with high fire and life risk often require greater numbers of personnel and apparatus to effectively mitigate a fire emergency. Staffing and deployment decisions should be made with consideration of the level of risk within geographic sub-areas of a community.

A community's risk assessment is developed based on potential land use within its anticipated future boundaries. These potential uses are generally found in city and county development plans and zoning designations. Risk is then translated into land use maps (potential scale and type of development within geographic sub-areas) that show categories of relative fire and life risk.

- Low Risk – Areas zoned and used for agricultural purposes, open space, low-density residential and other low intensity uses.
- Moderate Risk – Areas zoned for medium-density single family properties, small commercial and office uses, low-intensity retail sales, and equivalently sized business activities.
- High Risk – Higher-intensity business districts, mixed use areas, high-density residential, industrial, warehousing, and large mercantile centers.

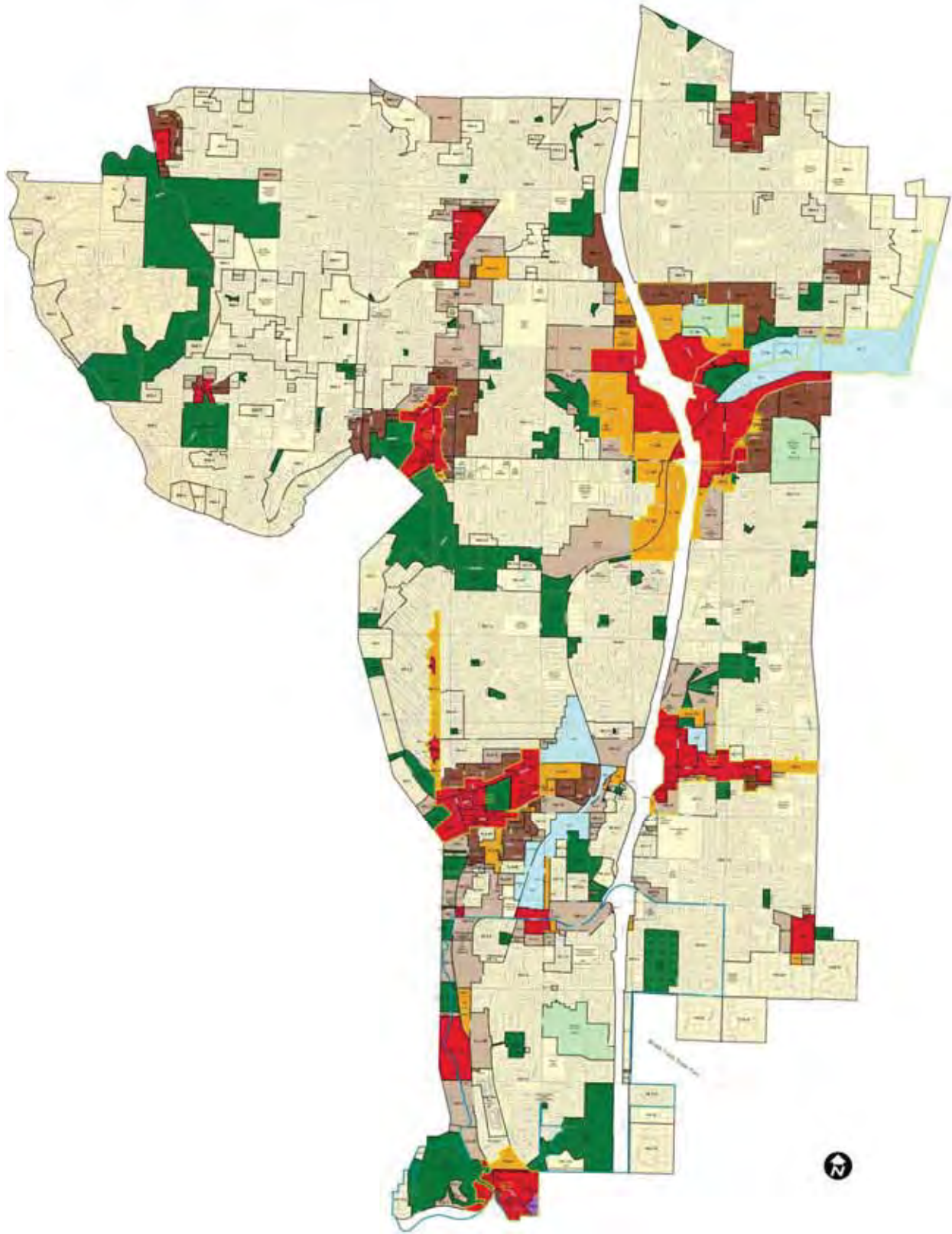
The following map (Figure 98) provides a view of the City of Kirkland zoning and the City's most recent adopted zoning designations.<sup>71</sup> This map is the officially adopted zoning record. The following map (Figure 99) is the comprehensive land use map for Kirkland with land use designations.<sup>72</sup>

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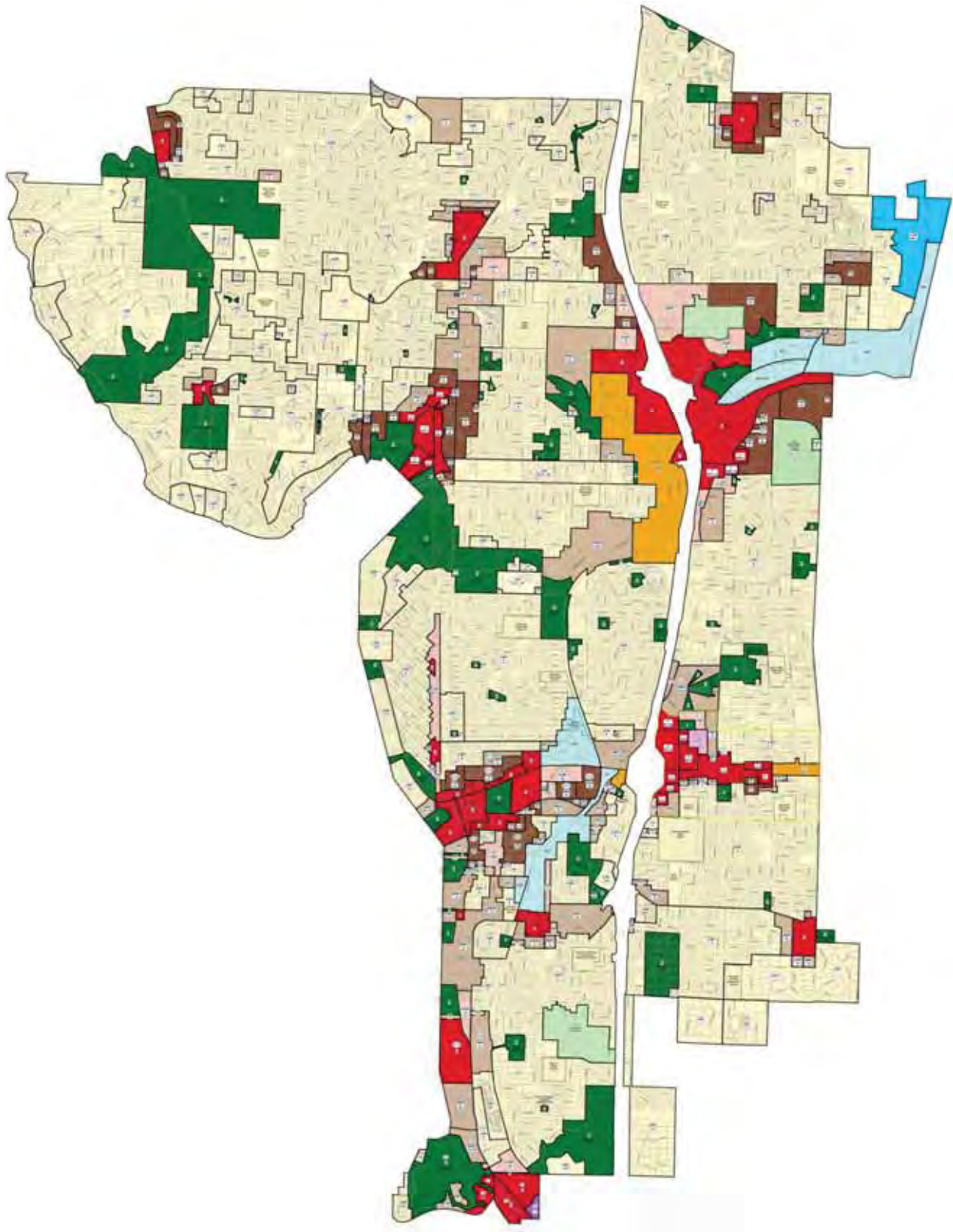
<sup>71</sup> Source: City of Kirkland Department of Planning and Community Development.

<sup>72</sup> Ibid.

**Figure 98: Kirkland Zoning Map**



**Figure 99: Kirkland Comprehensive Land Use Map**





Much of the KF&BD service area (City of Kirkland) is zoned for residential use (62 percent).<sup>73</sup>

**Figure 100: City of Kirkland Zoning Classification in Acres**

Zoning Classification	Acres	Percent of Total
Commercial	1,387	12.28%
Multi-Family Residential	794	7.03%
Industrial	83	0.73%
Single Family Residential	6,185	54.77%
Park/Open Space	1,007	8.92%
Right-of-Way	1,837	16.27%
<b>Total</b>	<b>11,293</b>	<b>100.00%</b>

A large presence of single family residents in the area annexed to the City in June 2011 increased Kirkland's single family residential zoning from 47 percent to 55 percent.<sup>74</sup>

Based on information from the VISION 2040 report and City of Kirkland planning documents, development will be of higher density in the core center. Following this pattern of development ESCI believes that KF&BD will need to continue to place a heavy emphasis of resources, facilities, apparatus, and personnel in the current locations. If forecasts prove accurate, service demand will increase in the core area of the City and KF&BD will need to add response units. Additionally, KF&BD will need a new fire station to have adequate response units and personnel resources to effectively serve Finn Hill, North Juanita, and Kingsgate.

## Ancillary and Supportive Services

### Specialized Rescue

Like many other fire agencies, KF&BD has added a variety of specialized rescue to the main purpose of fire suppression and EMS. Specialized services include confined space, rope (high angle), trench collapse, structural collapse, vehicle/machinery, and surface water rescue. These specialized services are provided at the technician level consistent with *NFPA Standard 1670*.<sup>75</sup> The NFPA standard identifies and establishes the levels of functional capability for conducting operations at technical search and rescue incidents while minimizing threats to rescuers.

<sup>73</sup> Ibid.

<sup>74</sup> Ibid.

<sup>75</sup> *NFPA 1670, Standard on Operations and Training for Technical Search and Rescue Incidents*, 2009 Edition, National Fire Protection Association.

Rescue services are under the responsibility of the deputy chief of operations; with routine management at an incident handled by the ladder company captain assigned Rescue Team Leader. KF&BD has personnel that are trained and have the expertise to handle routine technical incidents. Larger incidents require the regional team. Most of the fire agencies in the region, including Kirkland, do not have sufficient numbers of personnel to perform all of the specialized rescue services. Specialized rescue services for larger incidents are organized and delivered regionally under terms of a regional agreement whereby rescue personnel and equipment respond cooperatively.



A zone system was established to address standard operating procedures, training, personnel and equipment standards and emergency operations issues regionally with Kirkland as the lead agency. KF&BD and their neighboring agencies belong to Zone 1. Activities in Zone 1 are managed by a technical rescue committee that reports to the Zone 1 operations chiefs. KF&BD maintains a staffing level of three on duty “ladder technicians” per shift trained to specialized rescue standards.

## Training

### Training Administration

One component in support of emergency response, KF&BD has a comprehensive training program for its members. KF&BD participates in the East Metro Training Group (EMTG) in cooperation with other eastside fire agencies. In stakeholder interviews conducted during the course of this project, training was viewed as one of KF&BD’s most positive strengths.

While the EMTG exists as both a resource and a constraint (training initiatives must be evaluated in consideration of consistent application by the other member agencies), the training chief and training captain are responsible for administering and coordinating fire training for the KF&BD. Both training positions have administrative roles (daytime, 40 hours per week). As of the writing of this report, the incumbent training chief is set to retire and his replacement has yet to be selected. The current training chief has over 30 years of experience in the fire service and

has an Associate Degree in Fire Command/Administration and is a certified Incident Safety Officer. He has completed additional coursework from the National Fire Academy, Health & Safety Officer, Advanced Safety Operations and Management; Designated Infection Control Officer – Basic & Advanced, and Train the Trainer endorsement as an OSHA bloodborne pathogens and TB (tuberculosis) instructor.

The training division lacks administrative support staff. The EMTG has support staff since Kirkland is a participating agency. However, if Kirkland was to withdraw or the EMTG folded, support staff will be necessary to support a stand-alone training division.

**Figure 101: Training Division Staffing**

Position	Number of Personnel
Battalion Chief	1.00
Captain-Fire Suppression	1.00
<b>Total</b>	<b>2.00</b>

### Training Facilities

KF&BD does not have a complete training center but has towers with standpipes, confined space and vent props (located at Fire Station No. 26), and a medium-sized classroom for didactic training. The classroom has computer projection capability and a training library. As part of the EMTG, Kirkland has use of the Bellevue Training Center facilities, which does provide the full array of training props, tower, and burn facilities. Additionally, Northshore Fire District, a recent addition to the EMTG, has a state-of-the-art training facility that is a resource for Kirkland's north end crews.

### General Training Competencies

Like any other activity, training should be conducted using a comprehensive plan. The plan should include a clear definition of the goals and objectives of the training program and a schedule of training activities to achieve them. The training chief should ensure that lesson plans are developed, approved, and easily accessible; training objectives and measurements are clearly defined; and record keeping and documentation are seamless throughout the department. Frequent monitoring and mentoring of all members during training sessions by the training officers is important for continuity among companies and personnel.

KF&BD meets federal standards for National Incident Management System (NIMS) Incident Command System (ICS) certification. Homeland Security Presidential Directive 5 requires all



federal emergency management agencies to meet the federal NIMS training and certification standards and encourages compliance with these same standards for state and local governments. That encouragement comes in the form of the same training standards being the prerequisite for federal preparedness grant funding eligibility and other federal support. The standards include ICS-100 (Introduction to Incident Command System) and IS-700 (NIMS – An Introduction) for all personnel who are involved in emergency management, regardless of discipline or government structure. The OEM coordinates NIMS training activities.

Those with operational field responsibilities are required to obtain certifications consistent with their expected field responsibilities. Such responsibilities include ICS-200 (Basic Incident Command System) for supervisory personnel, ICS-300 for battalion chiefs and ICS-400 for staff chiefs expected to fill command and general staff positions. While not required, IS-800 is a key certification for fire department command staff and city management staff expected to make critical policy decisions on behalf of the city during a declared emergency or disaster. It is also valuable for field personnel, who must understand how local plans relate to the National Response Framework during incidents of national significance. Further guidance can be found in the NIMS Training Program, located on-line through FEMA's National Integration Center.

Department fire operations should follow industry best practices in conjunction with the training division. However, training is a support function for operations and should therefore take its cues from the Operations Division. Training should establish goals and objectives and a master calendar laying out a multi-year plan in order to meet the needs of the Operations Division.

Training personnel have the responsibility of managing the EMS training schedule, including the OTEP (Ongoing Training Evaluation Program). A BLS (Basic Life Support) instructor is assigned to each KF&BD crew to handle the responsibility of managing the training schedule. The Redmond Fire Department provides cardiac arrest training to KF&BD. Redmond instructors use the “Sim-Man” (training simulator mannequin) two to three times per year and perform medical incident chart review and develop EMS training based on identified educational gaps.

To better assure quality emergency scene performance, training should be based on established standards of practice. KF&BD recently decided to use Fire Engineering as its primary resource for standards and training materials. Fire Engineering's Firefighter I and II curricula meet industry standards and are consistent with best practices. Minimum performance

thresholds (competencies) must be identified in writing and disseminated to all personnel with regular testing and evaluating performance and as reinforcement.

### Recruit Training

Training for KF&BD's new hires is outsourced to either the Washington State Training Center in North Bend or Bates Technical College in Tacoma. Previously there have been joint academies conducted with the Northshore and Bellevue fire departments. If the EMTG becomes a formalized consortium, recruit academies could be run concurrently with the participating agencies in a more cost efficient manner. If the EMTG does not happen, sending recruits to another agency, as is currently the practice, is the second most efficient method of providing Washington State minimum standards skills training. Additional KF&BD organization-specific training is required to augment initial recruit training received at Bates or North Bend.

### Training Procedures, Manuals, and Protocols

KF&BD has not developed an agency-specific training manual. ESCI recommends that KF&BD defer addressing this gap in favor of a combined EMTG training manual. A training manual is an important "deliverable" for a training consortium, but only in the context of a formalized agreement. In the absence of a collaborative training manual, KF&BD should develop its own training manual.

### Training Methodology

KF&BD currently provides manipulative skills training, task performance based training, and multi-company and multi-agency drills. There is no established minimum number of training hours an individual or company is required to receive. Night drills occur infrequently. Lesson plans are developed as the need occurs, and there are no company or individual training evaluations performed. Battalion chiefs may perform evaluations at their sole discretion. KF&BD uses training objectives for activities, but goals and purpose statements for objectives need to be developed further and refined.

Department physical standards are established on an individual basis, using general calisthenics as a measurement. Individuals are rewarded with time off for their ability to complete tasks related to department physical standards.<sup>76</sup> Physical tasks involve an individual

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<sup>76</sup> The Employer and the Union agree to abide by the Physical Fitness Policy outlined in Kirkland Fire Department Directive 3.016 dated December 6, 2007, or as modified and agreed upon by the Employer and the Union.

running 1.5 miles, performing 75 push-ups, 150 sit-ups, and 20 pull-ups. Fire suppression personnel are provided time for fitness and exercise activities during the on-duty work day.

### Training Record Keeping

Most of the KF&BD's training records are recorded and maintained on a web-based records management system (RMS) called *FireTime*™. Reports can be produced from *FireTime*™ by individual, category (or type of training), and number of hours. Recordkeeping for company level training activities is not currently maintained. Company level training activities integrate fire incident pre-fire planning of community target hazards (locations with the potential for large loss of life or property).

### **Opportunities for Regional Partnerships**

Most fire departments today are recognizing the need to look for ways in which they can work together more effectively. The motivation to do so is generally driven by a combination of factors, including deteriorating financial conditions and a recognition of the importance of increasing effectiveness and efficiency simply in the interest of quality service delivery.

The following section provides an overview of the various concepts that are applied to identifying and analyzing partnership opportunities. Prospective strategies are listed and explained in context as they may apply to the KF&BD.

Most public agencies are experiencing a period of transformation which has been accelerated by recent financial declines. Rapid economic change in virtually every sector of the nation is driving increasing demand for more collaborative and sophisticated fire and EMS protection. Many fire departments that have existed virtually unchanged for decades today find themselves challenged to anticipate and provide acceptable emergency service delivery with progressively constricting revenue.

As communities that are in close proximity to each other grow, their economies and emergency service demands become progressively more interdependent. The notion of cooperative service delivery is not a new one and has been undertaken in private industry for many years. Public providers of emergency services have sought ways to work more closely together only in relatively recent years and to a lesser extent. Those that have been reluctant to work together and have instead held to independent and territorial practices are being forced by new economic challenges to reconsider their outlook.

Compounding the impact of the economic downturn experienced in 2008, numerous states like Washington have experienced a public service funding crisis brought on by tax limitation laws or other policy shifts that squeeze the ability of communities to unilaterally finance and manage needed change. Even those rare communities not directly experiencing a funding crisis are pressured by residents and others to lower cost, increase service, and operate more efficiently.

Beyond financial considerations, it has become clear that rather than autonomous service delivery by stand-alone entities, emergency response needs are often more effectively met by a larger, regionally based, fire protection agency. This is because the successful outcome of an emergency is highly dependent on the rapid mobilization of significant numbers of personnel and equipment. Regionalized fire protection strategies inherently have the ability to field greater numbers of emergency workers and equipment while capitalizing on economies of scale in management and oversight.

Today, fire departments are sophisticated and indispensable channels for all forms of emergency service, including natural and man-caused disaster management, fire and accident prevention, and pre-hospital care. In the process, the role of many fire agencies has transformed to regional emergency service providers.

Combining fire and EMS service delivery providers by way of merger, consolidation or any of the many other available approaches is frequently viewed as a cost saving initiative. While financial advantages are often realized, ESCI's experience had been that savings are usually modest when smaller agencies pool their resources because the economies of scale found when large organizations are merged do not exist. However, what is gained when small agencies cooperate is significant in terms of increased efficiency, long-term cost avoidance, and depth of resources.

### *Processes for Collaboration*

The potential efficiencies to be gained by pursuing cooperation between agencies can be described on a continuum. Identified partnering strategies fall in a range, from remaining autonomous to the creation of a new organization encompassing multiple or all of the agencies.

To comprehend the opportunities for cooperative efforts, a basic understanding of the available methods for collaboration available is necessary. The information we provide here should be considered for what it is—a primer regarding the legal aspects of collaborating public agencies. At the point where City policymakers have decided to pursue any of the cooperative efforts, the

advice of legal counsel should be sought in order to ensure that the appropriate procedures are followed.

A method used frequently in Washington is for government units to legally partner through the use of an ILA (Interlocal Agreement). Other methods of collaboration include consolidation, merger, contracting, or the formation of a Regional Fire Authority. The movement toward more intergovernmental cooperation in the delivery of emergency service goes by many names, including unification, regionalization, consolidation, alliance, and merger.

### General Partnering Strategies

The various partnering strategies are described, beginning with a do-nothing approach and ending with complete consolidation into a new emergency service provider. The following alternatives will be evaluated and discussed:

- Complete Autonomy
- Administrative Consolidation
- Functional Consolidation
- Operational Consolidation
- Legal Unification or Merger
- Regional Fire Authority Creation

### Complete Autonomy

This is a status quo approach in which nothing changes. While often viewed negatively, in some cases the best action is no action. In this case, KF&BD and its neighboring agencies simply continue to do business as usual, cooperating with and supporting each other as they do today, but with no change to governance, staffing or deployment of resources. Current collaborative practices are not altered.

This approach carries with it the advantage of being the easiest to accomplish as well as maintaining the independence of the organizations and local control. The currently elected city councils or boards continue to oversee their individual agencies as their electorates' desire, without the complication of considering the views of a different constituency. It creates the least stress on the organizations and does not necessitate reorganization. What it lacks is long-term commitment and the virtues that can be gained in terms of increased efficiency that is realized in a cooperative service delivery environment.

In today's environment, taxpayers typically hold their elected officials accountable for delivering a quality level of service at an affordable rate and expect creative thinking to solve problems or achieve those ends. While "maintaining the status quo" is easy and involves the least amount of impact, it may well be one of the riskier decisions to make politically.

#### Administrative Consolidation

Under an administrative consolidation, agencies remain independent of each other from a governance standpoint, but they blend some or all of their administrative functions. The result is often one of increased efficiency in the use of administrative and support personnel. Overhead costs are typically reduced and duplication of efforts is eliminated.

The advantages of such a model include cost savings by eliminating administrative duplication; a gradual alignment of otherwise separate operations under a single administrative head; less resistance to change by the rank and file in the operational elements than other consolidation options; and singularity of purpose, focus, and direction at the top of the participating organizations. This strategy lends itself well to a gradual move toward a single, consolidated agency where differences in attitude, culture and/or operation are otherwise too great to overcome in a single move to combine.

The disadvantages include potential conflicts in policy direction from the governing bodies; potentially untenable working conditions for the fire chief ("one man, two bosses"); and increased potential for personnel conflict as separate employee groups vie for dominance/supremacy.

An administrative consolidation is most effective in larger organizations where duplication exists and workload assignments can be re-aligned to gain efficiencies.

#### Functional Consolidation

A functional consolidation maintains separate agencies with their governing bodies and administrations left unchanged. The approach is focused primarily on the response agency's programs as opposed to its operations or administrative composition. It may be applied to nearly any program or practice and is commonly applied to training, fire prevention, and similar programs that are of a common interest and need for the participating agencies.

The initiative is often found to increase efficiency and make better use of limited resources. Advantages of elimination of duplication and more effective use of resources are often realized. Direct cost savings may be limited; however, long-term gains can be anticipated.

Functional consolidations require a greater collaboration between agencies than other partnering strategies and independence and autonomy are reduced in the areas of consolidation to some extent.

### Operational Consolidation

An operational consolidation strategy takes the next step in the continuum of closer collaboration development. In this case, all operations are consolidated under a single organization that serves all partnering agencies. The organizations remain independent agencies from a legal standpoint; but from a service delivery perspective, they operate as one.

An operational consolidation, accomplished through a written agreement between the agencies, requires a significant commitment toward a full consolidation and is usually undertaken as a segue toward integration. The level of trust required to implement operational consolidation is very high, since independence and autonomy have been willingly relinquished in favor of the preferred future state of a complete integration.

The advantages of this form of consolidation are that the greatest opportunity for efficiency is typically in the operational element where the expense is greatest and the level of trust and cooperation required to make this strategy successful implies a near-readiness to take the next step to full consolidation.

The disadvantage is that administrators and policy-makers must share power and gain consensus where they once had unilateral authority to control and implement.

### Legal Merger

While this partnership is not directly applicable to Kirkland, it is offered as information as to the other possibilities that exist for some of KF&BD's neighbors. A merger is a complete integration of two or more fire districts into one and requires a vote of people in each affected area. Each is absorbed into and becomes part of the other agency(s). For multiple fire districts to merge, some cease to exist (merging agency or agencies) and one becomes the surviving entity (merger agency). The employees and volunteers of the merging agencies are transferred to the merger agency, and the elected positions are either eliminated from the merging district or



brought into the merger district through an agreement to re-configure the composition of the board of directors.

Tax rates become a key factor in a merger. In this case, the taxing authority of the surviving agency may be applied to the entirety of the newly merged district. However, while the taxing authority is expanded, the board of commissioners of the new district chooses whether it will levy the full taxing authority to the constituents of the district or some lesser amount based on identified needs and the willingness of the voters to agree.

### *Regional Fire Authority Creation*

To establish a new, singular agency, an alternative to a merger is the formation of a Regional Fire Authority (RFA). An RFA is a new entity whereby all participating agencies fall under the new structure with a new tax base, a new operational plan, and a new legal framework. An RFA requires an affirmative vote from the citizens in each jurisdiction.

An RFA is established by the formation of a Planning Committee charged with establishing the RFA Plan, which specifies how the Authority will be funded, operated and governed. The Planning Committee is comprised of three elected officials from each participating agency, assuring equal representation. Most successful RFAs have established formal steering committees composed of a wide variety of stakeholders to determine the feasibility of creating an RFA far in advance of forming the actual Planning Committee.

Legislation passed in Washington State in 2004 provided the ability to establish Regional Fire Authorities.<sup>77</sup> Since that time, numerous RFAs have been created in the state with a high degree of operational success. Benefits that fire departments have experienced with an RFA are in line with the needs of the KF&BD.

### **Cooperative Effort Strategies**

Moving forward from the discussion of overarching cooperative concepts, specific strategies are identified by which KF&BD might develop cooperative practices and programs with neighboring emergency service providers. The listing below is representative of potential cooperative opportunities, while not all-inclusive; it lists many that have been used successfully by other fire and EMS agencies.

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<sup>77</sup> A summary of recent Washington legislation is found in Appendix D: Summary of Recent RFA (Regional Fire Authority) Legislation.

It is important to point out that KF&BD already has or is working towards implementing some collaborative efforts. Regardless of the existing level of implementation, we list the strategies to provide the reader with a complete picture of cooperative efforts potential.

The strategies may be accomplished with willing partners on an individual basis or they may be incorporated into various approaches to the concepts of administrative, functional, or operational consolidation detailed in the previous discussion. Each cooperative efforts strategy identified is followed by the objective(s) that may be achieved (Figure 102).

**Figure 102: Cooperative Effort Strategies**

Strategy	Objectives
<b>Administration</b>	
Conduct Joint Strategic Planning	<ul style="list-style-type: none"> <li>• Enable agencies to develop a Mission, Vision, Values, and Guiding Principles that are common to the organizations.</li> <li>• Empower the fire departments to identify needs and establish plans to meet them, including shared organization goals and objectives.</li> </ul>
Create a Unified Occupational Medicine Program	<ul style="list-style-type: none"> <li>• Provide a fire-service related occupational medicine and health program.</li> </ul>
Create a Unified Wellness and Fitness Program	<ul style="list-style-type: none"> <li>• Provide a wellness and fitness program that promotes the improved health and well-being of personnel at all ranks.</li> <li>• Increase fitness levels and decrease injuries.</li> <li>• Reduce frequency and number of sick/sick injury incidents.</li> <li>• Reduce the number of days used for sick/sick injury leave.</li> </ul>
Develop Uniform Fees for Service	<ul style="list-style-type: none"> <li>• Provide participating fire departments with a uniform schedule of fees for service.</li> </ul>
<b>Operations</b>	
Develop Uniform Pre-Incident Plans	<ul style="list-style-type: none"> <li>• Provide a system of shared operational plans for use during emergencies and non-emergent incidents.</li> </ul>
Implement Enhanced Use of Mutual and Automatic Aid	<ul style="list-style-type: none"> <li>• Refine, enhance, and increase the application of mutual aid and automatic aid practices to improve response effectiveness.</li> </ul>
Provide for Regional Deployment of Fire Stations and Apparatus	<ul style="list-style-type: none"> <li>• Provide for distribution of facilities and deployment of personnel consistent with a regional standard of cover.</li> <li>• Provide consistent fire and emergency services within areas efficiently before, during, and after development.</li> </ul>
Implement Regional Incident Command and Operations Supervision	<ul style="list-style-type: none"> <li>• Provide for IC (Incident Command) supervision of emergency operations.</li> <li>• Provide for supervision of on-duty personnel during routine operations.</li> </ul>
Develop Standard Operating Guidelines	<ul style="list-style-type: none"> <li>• Provide guidelines for operation during emergencies and non-emergency incidents and activities.</li> </ul>
Establish Shared Specialty Teams	<ul style="list-style-type: none"> <li>• Provide specialty teams or specialty functions by allocating and distributing resources to achieve minimum cost and maximum operational benefit.</li> </ul>

Strategy	Objectives
Provide Joint Standards for Service Delivery	<ul style="list-style-type: none"> <li>• Comply with RCW 35A.92.040 Fire Departments – Performance Measures.</li> <li>• Establish a joint Standards for Service Delivery Policy, defining services, service levels, and response times to the 90th percentile so that adequate system planning can take place.</li> <li>• Develop a system-wide reporting structure to standardize the collection and reporting of relative compliance with the Standards for Service Delivery Policy.</li> </ul>
Implement the Use of Peak Activity Units (PAUs)	<ul style="list-style-type: none"> <li>• Provide special response units in areas of high incident activity and for replacement of units attending training sessions or called to cover special events.</li> </ul>
Develop Common Deployment Standards	<ul style="list-style-type: none"> <li>• Develop deployment standards that establish the distribution and concentration of emergency resources, both fixed and mobile.</li> </ul>
Adopt/Enhance Dropped Border Response	<ul style="list-style-type: none"> <li>• Improve service delivery to partnering agencies by sending the closest unit to an emergency call for service without regard to jurisdiction.</li> </ul>
Joint Staffing of Fire Stations	<ul style="list-style-type: none"> <li>• Improve initial response times in adjoining areas.</li> <li>• Reduce response times for additional apparatus and personnel to respond to incidents requiring multiple units.</li> <li>• Improve overall service demand coverage.</li> </ul>
Expand partnership with King County Sheriff's Marine Unit	<ul style="list-style-type: none"> <li>• Provide a coordinated response to marine firefighting and rescue incidents.</li> </ul>
<b>EMS</b>	
Adopt Criteria-Based Dispatch	<ul style="list-style-type: none"> <li>• Send the most appropriate unit to an emergency based on medical criteria established by experts in the field.</li> </ul>
Provide for Shared EMS Supervision	<ul style="list-style-type: none"> <li>• Provide a single point for training and recertification of all EMS personnel in participating organizations.</li> </ul>
Establish System-Wide Guidelines for EMS Response	<ul style="list-style-type: none"> <li>• Standardize EMS response and deployment protocols in the participating agencies.</li> </ul>
<b>Training</b>	
Consolidate Training into a Single Training Program	<ul style="list-style-type: none"> <li>• Eliminate duplication in training emergency responders to increase effectiveness.</li> <li>• Create a single unified training division.</li> </ul>
Implement a Shared Computerized Training Records Management System	<ul style="list-style-type: none"> <li>• Provide a shared and integrated training records management system (RMS).</li> </ul>
Develop Mutual Training Strategies	<ul style="list-style-type: none"> <li>• Provide purpose and direction for training program management and delivery.</li> <li>• Combine strengths and resources to: <ul style="list-style-type: none"> <li>○ Overcome current training obstacles and deficiencies</li> <li>○ Provide a comprehensive and integrated training structure</li> <li>○ Develop a mutually beneficial training program</li> <li>○ Train and certify a cadre of knowledgeable and skilled emergency responders</li> </ul> </li> </ul>
Develop an Annual Shared Training Plan	<ul style="list-style-type: none"> <li>• Provide standardized and consistent training.</li> <li>• Provide a well-trained emergency workforce.</li> <li>• Provide long-term vision and direction for training delivery.</li> </ul>

Strategy	Objectives
Develop and Adopt Training Standards	<ul style="list-style-type: none"> <li>• Adopt uniform training guidelines.</li> <li>• Adopt uniform certification standards.</li> </ul>
Create a Shared Training Manual	<ul style="list-style-type: none"> <li>• Provide consistent, standardized training procedures.</li> </ul>
Develop a Shared Fire and EMS Training Facility	<ul style="list-style-type: none"> <li>• Provide training facilities readily available to all partnering agencies.</li> <li>• Enhance the fire department's ability to develop and maintain the knowledge and skills of emergency services personnel.</li> </ul>
Implement and Cooperatively Use a Video Conferencing System	<ul style="list-style-type: none"> <li>• Provide standardized, consistent, and high-quality classroom training.</li> <li>• Reduce training staff hours required for curriculum delivery.</li> <li>• Increase in-service time of emergency response apparatus.</li> </ul>
<b>Fire Prevention</b>	
Develop Joint Fire Prevention and Code Enforcement Practices	<ul style="list-style-type: none"> <li>• To provide uniform fire prevention services to the region.</li> <li>• Reduce the threat to life or property from fire via coordinated and standardized practices.</li> </ul>
Conduct Joint Public Education/Public Information Activities	<ul style="list-style-type: none"> <li>• Provide Public Education and Public Information services regionally.</li> <li>• Implement the use of a shared RMS (Records Management System).</li> <li>• Establish a shared or common electronic Records Management System, including NFIRS (National Fire Incident Reporting System), NEMSIS (National EMS Information System), and WEMSIS (Washington Emergency Medical Service (EMS) Information System) compliant software.</li> </ul>
Develop a Regional Fire Safety Education Coalition	<ul style="list-style-type: none"> <li>• Provide for the cost effective, regional dissemination of public fire safety education.</li> </ul>
Develop a Regional Juvenile Fire Setter Intervention Network	<ul style="list-style-type: none"> <li>• Provide an effective means for intervening in juvenile-set/caused fires.</li> </ul>
<b>Support Services</b>	
Develop a Joint Support and Logistics Services Division	<ul style="list-style-type: none"> <li>• Develop a joint Support Services Division that promotes improved operational readiness and achieves procurement efficiencies by eliminating duplication in the acquisition and distribution of supplies.</li> <li>• Create a uniform set of standards for apparatus, small equipment, PPE (personal protective equipment), emergency supplies, and IS/IT services.</li> <li>• Develop a joint preventative maintenance and repair service program for physical assets, apparatus, small equipment, and IS/IT systems.</li> </ul>
Develop a Single Apparatus Refurbishment/Replacement Plan	<ul style="list-style-type: none"> <li>• Create a single set of emergency apparatus specifications.</li> <li>• Accommodate joint purchasing of emergency apparatus.</li> <li>• Provide for shared use of reserve apparatus.</li> <li>• Establish a jointly planned and managed apparatus replacement schedule.</li> </ul>
Provide Joint EMS Supply Purchasing and Logistics Services	<ul style="list-style-type: none"> <li>• Standardize supply purchases through group purchasing.</li> <li>• Standardize supply distribution.</li> </ul>

### Recommended Regional Partnership

Of the available options for legal unification, consolidation, or partnership between KF&BD and neighboring fire and EMS service providers, ESCI considers Northshore and Bellevue fire departments to be feasible partners. Consolidation of fire and EMS into a single operational unit, either through Interlocal Agreement (ILA) or the formation of an RFA would provide increased fire and emergency service efficiency in the areas served by the current fire departments.

### Functional Cooperation Recommendations

The following recommended strategies are judged as being feasible and most likely to result in significant improvement to systems and/or programs. These initiatives should be acted on regardless of action on a regional partnership.

### Short-Term Cooperative Recommendations

- Develop Uniform Fees for Service
- Develop Uniform Pre-Incident Plans
- Implement Enhanced Use of Mutual and Automatic Aid
- Adopt/Enhance Dropped Border Response
- Adopt Criteria-Based Dispatch
- Develop Mutual Training Strategies
- Develop an Annual Shared Training Plan
- Develop and Adopt Training Standards
- Create a Shared Training Manual

### Mid-Term Cooperative Recommendations

- Conduct Joint Strategic Planning
- Create a Unified Occupational Medicine Program
- Create a Unified Wellness and Fitness Program
- Develop Standard Operating Guidelines
- Establish Shared Specialty Teams
- Provide Joint Standards for Service Delivery
- Develop Common Deployment Standards
- Expand partnership with King County Sheriff's Marine Unit
- Provide for Shared EMS Supervision
- Establish System-Wide Guidelines for EMS Response

- Consolidate Training into a Single Training Program
- Implement and Cooperatively Use a Video Conferencing System
- Develop Joint Fire Prevention and Code Enforcement Practices
- Conduct Joint Public Education/Public Information Activities
- Develop a Regional Fire Safety Education Coalition
- Develop a Regional Juvenile Fire Setter Intervention Network
- Provide Joint EMS Supply Purchasing and Logistics Services

#### Long-Term Cooperative Recommendations

- Provide for Regional Deployment of Fire Stations and Apparatus
- Implement Regional Incident Command and Operations Supervision
- Implement the Use of Peak Activity Units (PAUs)
- Joint Staffing of Fire Stations
- Implement a Shared Computerized Training Records Management System
- Develop a Shared Fire and EMS Training Facility
- Develop a Joint Support and Logistics Services Division
- Develop a Single Apparatus Refurbishment/Replacement Plan

#### **Conclusion – Fire and Emergency Medical Services**

ESCI observed and through interviews determined that the hierarchal structure the KF&BD operates as intended with the building services manager. In contrast, ESCI found that in practice the fire chief is the direct report for any number of other fire department personnel and activities. Deputy fire chiefs routinely perform administrative, technician, and clerical tasks. Time devoted to activities outside of essential functions and principal accountabilities have reduced the deputy chiefs' availability to perform job critical administrative and supervisory duties. The addition of support staff allowing the two deputy chiefs to focus on administrative duties is fitting.

Given the number of FTEs dedicated to emergency operations, a minimum staffing of 19 per day, 30 personnel assigned to each shift, KF&BD's use of overtime is appropriate. Leave time use categorized as sick leave and injury is considered to be high. Some fire departments are using staffing options including the addition of a D shift. D shift is made up of personnel that work by filling vacancies on A, B, or C shifts. There is a great deal of flexibility with scheduling for the department and the individual.



The provision of Emergency Medical Services (EMS) has come to be the predominant service offered by many fire departments to their communities. EMS is expected to continue as the predominate factor affecting service demand. KF&BD is heavily invested in the BLS system. ESCI recommends that the KF&BD move forward and analyze the feasibility of providing ALS response services for Medic One. There are multiple benefits of KF&BD delivering ALS response services for Medic One in conjunction with BLS.

Capital facilities, apparatus, and capital equipment for the KF&BD constitute a large investment. Planning for remodels and the replacement of fire stations is a major capital expense and requires long-range planning. With Fire Station No. 25 (Finn Hill South) and Fire Station No. 27 (Totem Lake) nearing their life expectancy, ESCI recommends that a capital plan for the rebuild or replacement be developed. It is further recommended that KF&BD develop an internal long-term plan for funding the maintenance and replacement of capital equipment that aligns with the City CIP.

KF&BD relies on automatic aid to have adequate personnel for most fire incidents. Over the past two years, each of the neighboring fire and EMS agencies has gone through some reduction of fire stations, staffed apparatus, or personnel. To mitigate the reduction and improve coverage to the northwest (Finn Hill) area of the City, ESCI recommends that the KF&BD construct and staff a joint fire station with the Northshore Fire Department. Joint staffing of a shared new facility in a location that would serve Northshore and Kirkland would improve service in areas currently underserved by both agencies.

There are two alternative methods for KF&BD to meet the current adopted response time objectives. First, change the response time objectives to match the response that the fire department is able to meet. Second, add facilities, emergency response units, and personnel to the department to the level that will meet the response objectives. For Kirkland to increase resources requires a large capital investment and ongoing expenditures. Capital requirements involve the addition of two fire stations, one in the Finn Hill neighborhood and a second in the southern section of the City. Each fire station would need an engine and aid unit and a minimum of six personnel per day to cross-staff the units.

Of the potential partnerships with neighboring fire and EMS service providers, ESCI considers Northshore and Bellevue fire departments to be feasible partners. Consolidation of fire and EMS into a single operational unit, either through Interlocal Agreement (ILA) or the formation of an RFA would provide increased fire and emergency service efficiency in the areas served by



the three fire departments. An ILA between Kirkland and Northshore is viewed as an interim step to an RFA. The ILA can be more quickly accomplished and allows for the two agencies to move forward on capturing the benefits of operating as a single fire and EMS provider.

ESCI developed 34 recommended cooperative efforts strategies that the KF&BD could pursue. These strategies are judged as being feasible and most likely to result in significant improvement to systems and/or programs. These strategies should be acted on regardless of action on a regional partnership.

### **Recommendation Summary – Fire and Emergency Medical Services**

- ❖ Recommendation 45: Update KF&BD Department Manual Directive Number 3.001 to accurately reflect current daily minimum staffing level. (Implementation Order 22)
- ❖ Recommendation 46: Maintain a minimum per shift of two personnel (swing personnel) at firefighter EMT, two at lieutenant, and two at the captain rank with the qualifications and appropriate certifications to fill vacancies or step-up. (Implementation Order 24)
- ❖ Recommendation 47: Within the limits of the collective bargaining agreement use personnel at the captain and lieutenant rank to work down to fill vacancies. (Implementation Order 30)
- ❖ Recommendation 48: Periodically (annually or more frequently) review minimum staffing levels and options for filling vacancies. (Implementation Order 25)
- ❖ Recommendation 49: Periodically review sick leave and work-related injuries for patterns and opportunities to reduce occurrences. (Implementation Order 26)
- ❖ Recommendation 50: Develop an internal CIP for the maintenance and replacement of KF&BD capital equipment. (Implementation Order 27)
- ❖ Recommendation 51: Perform an energy audit on all fire stations and follow recommended energy efficiency measures.<sup>78</sup> (Implementation Order 35)
- ❖ Recommendation 52: Replace apparatus using a combination of age, mileage (for gas powered units), engine hours (for diesel apparatus) and condition. (Implementation Order 34)
  - If an apparatus meets age and mileage or engine hour thresholds, use the condition as the determining factor when considering replacement.
  - Condition factors such as maintenance records and cumulative maintenance costs should help determine if a unit is actually ready to be replaced.
  - If a unit has not met the age and mileage or engine hour thresholds but the condition factors are alarmingly high, consider early replacement.
- ❖ Recommendation 53: Store PPE in a separate, well ventilated room. (Implementation Order 6)

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<sup>78</sup> Energy audits are generally provided free of charge by electric and natural gas utility companies.

- ❖ Recommendation 54: Monitor mutual and automatic aid for equity. (Implementation Order 28)
- ❖ Recommendation 55: Make upgrades to incident reporting RMS software to eliminate erroneous data entries. (Implementation Order 9)
- ❖ Recommendation 56: Track failure rate of units to respond to incidents in their first due area by fire station and apparatus.
- ❖ Recommendation 57: Expand Chapter 21.35A of the Kirkland Municipal Code to include response by KF&BD to repeat false of malicious fire alarms. (Implementation Order 21)
- ❖ Recommendation 58: ICS training is currently at the federal minimum. Department minimum should be IS-100, IS-200, & IS-700 and IS-800b for all response personnel, and IS-300 & IS-400 for all chief officers. (Implementation Order 23)
- ❖ Recommendation 59: Create a formal mentoring program to develop for officers to use with subordinates. (Implementation Order 31)
- ❖ Recommendation 60: Formalize the East Metro Training Group via an interlocal agreement between participating agencies, with Kirkland Fire & Building Department as a permanent member. (Implementation Order 7)
- ❖ Recommendation 61: Identify training competencies in writing, teach, train, test, and evaluate personnel regularly by the training division in concert with shift battalion chiefs. (Implementation Order 8)
- ❖ Recommendation 62: Develop a consistent program for training hazardous materials technicians. (Implementation Order 32)
- ❖ Recommendation 63: Dedicate a reserve engine to the training division, preferably a unit that can be shared by agencies. (Implementation Order 22)
- ❖ Recommendation 64: Develop a joint recruit academy with other members of the EMTC. (Implementation Order 29)
- ❖ Recommendation 65: Maintain the practice EMTC recruit training or use the practice of sending recruits to either Bates or North Bend, augmented with agency specific training. (Implementation Order 10)
- ❖ Recommendation 66: In the absence of a combined EMTG training manual, KF&BD should develop its own training manual, preferably in concert with the other members of the EMTG. (Implementation Order 20)
- ❖ Recommendation 67: Refine and expand goals and purpose statements of training objectives. (Implementation Order 11)
- ❖ Recommendation 68: Establish a minimum number of annual training hours an individual or company is required to complete. (Implementation Order 19)
- ❖ Recommendation 69: Conduct at a minimum two night drills per shift per year that involve all fire suppression personnel. (Implementation Order 18)
- ❖ Recommendation 70: Develop lesson plans for core competencies requiring instructors to follow plans when instructing. (Implementation Order 14)
- ❖ Recommendation 71: Establish a minimum requirement for annual company and individual training evaluations. Include shift battalion chief involvement in annual evaluations. (Implementation Order 5)

- ❖ Recommendation 72: Include company level training activities by subject in the RMS. (Implementation Order 16)
- ❖ Recommendation 73: Integrate pre-fire incident planning of community target hazards in training activities. (Implementation Order 17)
- ❖ Recommendation 74: Refine and expand goals and purpose of training objectives. (Implementation Order 13)
- ❖ Recommendation 75: Jointly construct and staff a new fire station with Northshore FD. The fire station should be located in an area to serve the Finn Hill neighborhood and Northshore FD. (Implementation Order 3)
- ❖ Recommendation 76: Develop a comprehensive evaluation program to assess all aspects of the EMS system. (Implementation Order 12)
- ❖ Recommendation 77: Provide Advanced Life Support services within the City of Kirkland via the King County Medic One program. (Implementation Order 1)
- ❖ Recommendation 78: Participate in the King County Medic One Community Medical Technician (CMT) pilot. (Implementation Order 2)
- ❖ Recommendation 79: Modify the EMS response protocol of sending three responders to medical incidents. Redeploy with dedicated staffing of two-person aid units, or single person quick response unit for low priority EMS incidents. (Implementation Order 3)
- ❖ Recommendation 80: Expand the current partnership with the King County Sheriff's Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to marine firefighting and rescue incidents. (Implementation Order 4)
- ❖ Recommendation 81: Develop a capital plan for the rebuild or replacement of Fire Station No. 25 (Finn Hill South) and Fire Station No. 27 (Totem Lake). (Implementation Order 33)

## **Accountability and Reporting**

### **Emergency Services Standards**

Institutions have long used professional member associations and accreditation to establish a level of professionalism. Groups like the JCAHO (Joint Commission on Accreditation of



Healthcare Organizations) for hospitals, WASC (Western Association of Schools & Colleges) for higher education, and CALEA (Commission for Accreditation of Law Enforcement Agencies) for police agencies are but a few. Accreditation is also seen as a way for member groups to provide a standard of excellence and a forum for collaborative industry efforts.

Likewise, the IAFC (International Association of Fire Chiefs) functions as the key professional organization of the fire service. The IAFC was founded in 1873 on the recognized need to provide standards across the fire protection industry for equipment and practices (such as standard hose and hydrant threads). That pursuit continues today, represented by the IAFC's active partnership with other organizations to form the CFAI (Commission on Fire Accreditation International).<sup>79</sup> The CFAI accreditation program grants accreditation to fire and emergency service agencies upon the successful completion of a comprehensive self-assessment and on-site evaluation. The Commission on Fire Accreditation International is:

*...[D]edicated to assisting the fire and emergency service agencies throughout the world in achieving excellence through self assessment and accreditation in order to provide continuous quality improvement and the enhancement of service delivery to their communities. The CFAI process is voluntary, and provides an agency with an improvement model to assess their service delivery and performance internally and then work with a team of peers from other agencies to evaluate the self-assessment completed.<sup>80</sup>*

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<sup>79</sup> The umbrella organization of the CFAI (Commission on Fire Accreditation International) was changed to the Center for Public Safety Excellence, Inc., in March 2006.

<sup>80</sup> <http://www.cfainet.org/home/aboutus.asp>, *Who are We?* – Commission on Fire Accreditation International website, December 2009.

Fire departments have used accreditation as a tool for continuous improvement. Accreditation is also a way to demonstrate professionalism to the community served by a fire department.

### Response Time Reporting

The state of Washington adopted legislation (Substitute House Bill 1756; 2005) requiring fire departments to establish service delivery and response time standards for the major emergency response services provided by the agency.<sup>81</sup> The legislation, as presented below, requires a local policy declaration concerning service delivery objectives:

### RCW 35A.92.040; Policy Statement — Service Delivery Objectives

- (1) *Every city and town shall maintain a written statement or policy that establishes the following:*
  - (a) *The existence of a fire department;*
  - (b) *Services that the fire department is required to provide;*
  - (c) *The basic organizational structure of the fire department;*
  - (d) *The expected number of fire department employees; and*
  - (e) *Functions that fire department employees are expected to perform.*
- (2) *Every city and town shall include service delivery objectives in the written statement or policy required under subsection (1) of this section. These objectives shall include specific response time objectives for the following major service components, if appropriate:*
  - (a) *Fire suppression;*
  - (b) *Emergency medical services;*
  - (c) *Special operations;*
  - (d) *Aircraft rescue and firefighting;*
  - (e) *Marine rescue and firefighting; and*
  - (f) *Wild land firefighting.*
- (3) *Every city and town, in order to measure the ability to arrive and begin mitigation operations before the critical events of brain death or flash-over, shall establish time objectives for the following measurements:*
  - (a) *Turnout time;*
  - (b) *Response time for the arrival of the first arriving engine company at a fire suppression incident and response time for the deployment of a full first alarm assignment at a fire suppression incident;*
  - (c) *Response time for the arrival of a unit with first responder or higher level capability at an emergency medical incident; and*
  - (d) *Response time for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.*

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<sup>81</sup> Chapter 35A.92 RCW (Revised Code of Washington) Fire Departments — Performance Measures.

- (4) *Every city and town shall also establish a performance objective of not less than ninety percent for the achievement of each response time objective established under subsection (3) of this section.*

In accordance with RCW 35A.92<sup>82</sup> and by means of Resolution R-4673 (October 2007), the City of Kirkland formally established required service delivery objectives for fire and emergency medical response services. This action is subsequent to previously adopted response time performance standards contained in KF&BD's 2000 Strategic Plan. KF&BD does not deliver special operations, aircraft rescue and firefighting, marine rescue and firefighting, or wild land firefighting response services. As required by state law, the City established the following response time objectives for fire response and emergency medical response services.

*Turnout Time Objective*

KF&BD adopted turnout time objective is sixty (60) seconds, ninety percent (90%) of the time.

*Response Time Objective from Dispatch Time; Arrival of 1st Arriving Engine Company at Fire Suppression Incident*

KF&BD adopted response time objective is four (4) minutes and forty-five (45) seconds for the first fire engine to arrive when responding to a fire suppression incident ninety percent (90%) of the time.

*Total Response Time Objective from Time of 9-1-1 Call; Arrival of 1st Arriving Engine Company at Fire Suppression Incident*

KF&BD has historically measured response time from the time of the 9-1-1 call to the time the first arriving unit was on the scene. Therefore, dispatch time, plus turnout time, plus travel interval equals total response time. The total response time standard is five (5) minutes and thirty (30) seconds for the first fire engine to arrive when responding to a fire suppression incident ninety percent (90%) of the time.

*Response Time Objective for Full First (1<sup>st</sup>) Alarm Response*

KF&BD adopted response time objective is ten (10) minutes for the first full alarm assignment when responding to a fire suppression incident ninety percent (90%) of the time. KF&BD's first full alarm assignment to a fire suppression response is four (4) engine companies, one (1)

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<sup>82</sup> Ibid.



ladder company, one (1) aid car, one (1) medical services officer, and two (2) battalion chiefs; a total of twenty (20) firefighting personnel.

KF&BD determined in 2000 that it would use total response time beginning from receipt of call at 9-1-1. In 2008 the State of Washington defined that total response time begins at the time of dispatch for the fire department.

*Response Time Objective From Dispatch Time; Arrival of First Unit at an Emergency Medical Incident*

KF&BD adopted response/travel time objective is four (4) minutes and thirty (30) seconds for the arrival of the first emergency medical (Aid) unit with at least two (2) emergency medical technicians ninety percent (90%) of the time.<sup>83</sup>

*Total Response Time Objective From Time of 9-1-1 Call; Arrival of First Unit at an Emergency Medical Incident*

KF&BD has historically measured response time from the time of the 9-1-1 call to the time the first arriving unit was on the scene. Therefore, dispatch time, plus turnout time, plus travel Interval equals total response time. The total time objective is five (5) minutes for the first unit to arrive when responding to an emergency medical incident ninety percent (90%) of the time.

*Response Standards Reporting*

The state of Washington legislation also requires an annual reporting process regarding service delivery and response time standards. The reporting requirements of that regulation are:

*RCW 35A.92.040; Annual Evaluations — Annual Report.*

- (1) Every city and town shall evaluate its level of service and deployment delivery and response time objectives on an annual basis. The evaluations shall be based on data relating to level of service, deployment, and the achievement of each response time objective in each geographic area within the jurisdiction of the city or town.*
- (2) Beginning in 2007, every city and town shall issue an annual written report which shall be based on the annual evaluations required by subsection (1) of this section.*
  - (e) The annual report shall define the geographic areas and circumstances in which the requirements of this standard are not being met.*
  - (f) The annual report shall explain the predictable consequences of any deficiencies and address the steps that are necessary to achieve compliance.*

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<sup>83</sup> KF&BD includes thirty (30) seconds for NORCOM to receive and transmit an alarm to KF&BD.



KF&BD has routinely submitted a Response Time Objectives Report since first required by RCW in 2007. However, its most current report (2010) does not define the geographic areas in which the requirements are not being met [RCW 35A.92.040(2)(a)]. Additionally, while the report contains information entitled, “Predictable Results,” this information does not explain predictable consequences and steps necessary to achieve compliance [RCW 35A.92.040(2)(b)]. The *2010 Kirkland Fire Department Response Time Objectives Report* does, however, enumerate five initiatives in response to the report’s information, all of which are clearly intended to address deficiencies and improve response times.

#### Reporting on Response Time Objectives; 2010

A summary of KF&BD’s documented emergency response time performance data and percent of the goal that was achieved by year is shown in the following figure (Figure 103).<sup>84</sup>

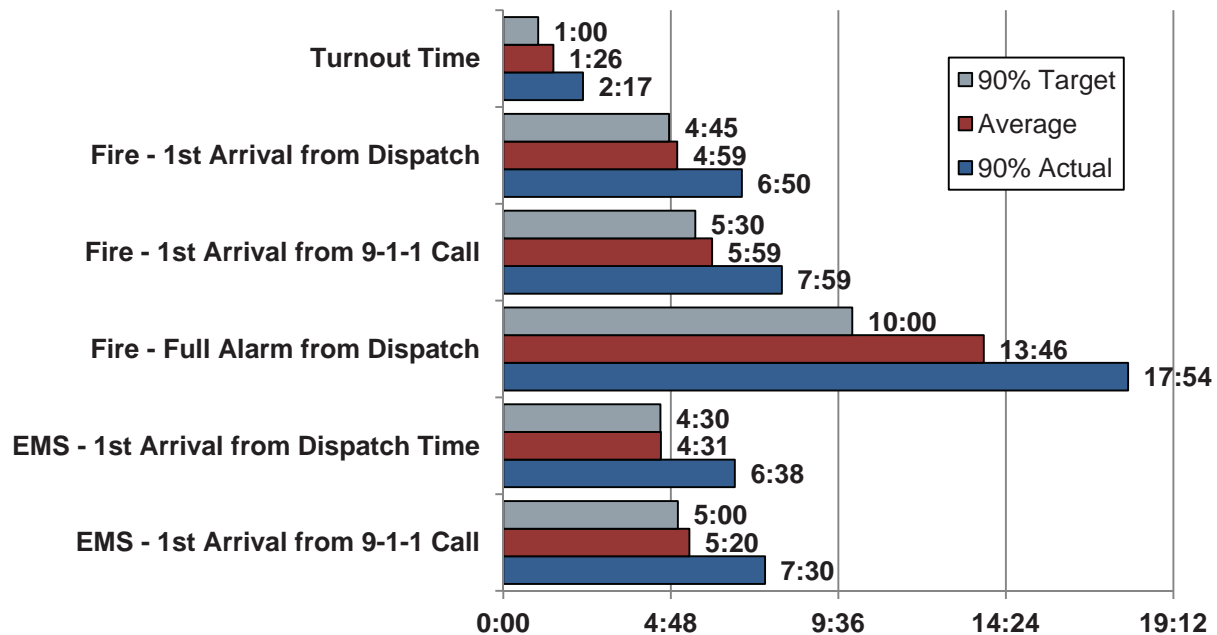
**Figure 103: Response Performance by Percentage, 2007 – 2010**

Incident Type	2007	2008	2009	2010	Target
Percent of EMS Responses under 05:00	49%	50%	48%	53%	90%
Percent of Fire Responses under 05:30	47%	53%	51%	52%	90%
Percent of Building Fires Contained to Room of Origin	41%	80%	70%	82%	60%
Percent of Full First Alarm Assignment Deployment	62%	53%	36%	17%	90%

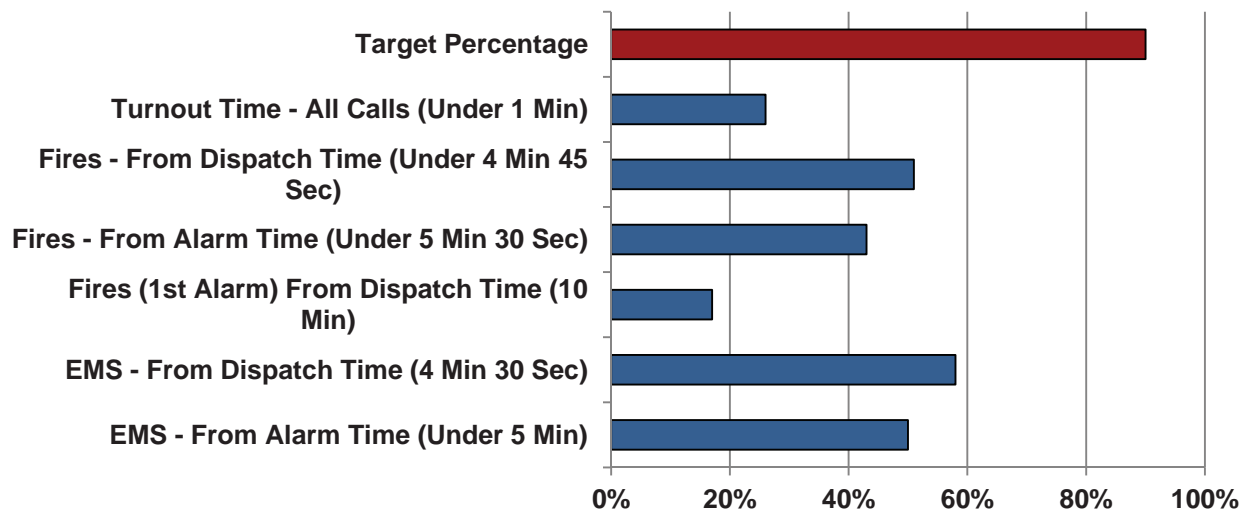
As a general conclusion, KF&BD is meeting its stated response performance goals (including turn out time) approximately 50 percent of the time. This performance is measured against the response time objectives of five minutes (05:00) or less for EMS and 5 minutes 30 seconds (05:30) or less for fires 90 percent of the time. The percent of full alarm assignment deployments has decreased markedly from a high of 62 percent in 2007 to a reported 17 percent in 2010. One possible reason is the change in KF&BD’s definition of a full response from 18 to 19 personnel in 2011. While the change in the number of personnel may be an explanation for some of the decrease it is unlikely to be the entire reason. ESCI recommends that KF&BD determine the reason for the large decrease in the percent of full alarm assignment deployments.

The following data from the *2010 Response Time Objectives Report* compares actual response time performance (90<sup>th</sup> percentile) with the target time; and also includes the average time.

<sup>84</sup> Performance Measures 2010, City of Kirkland.

**Figure 104: 90 Percent Targets – Actual versus Target, 2010**

The following chart depicts the percentage of KF&BD responses that achieve the established response time objectives.

**Figure 105: Response Time – Percent of Calls Meeting Target**

KF&BD is commended for developing and maintaining significant compliance with the state's legal policy and reporting requirements. However, in the context of four years of data, KF&BD consistently has achieved its response time objectives less than 60 percent of the time. ESCI concludes that, given KF&BD's current staffing, deployment model, and service demand, the

established response time targets are not realistic. We recommend that the City of Kirkland and the KF&BD revisit the response time targets and identify values that will better reflect current ability and yet retain an incentive to continue to improve performance (Additional discussion on response objectives and performance expectations is found beginning on page 212).

#### *Emergency Response Tiered by Geographic Composition*

While service demand is forecast to remain high in areas of dense population, those areas with anticipated population and infrastructure growth will see service demand increases. Moderate call volume will continue in the more suburban areas of Kirkland. KF&BD's service area contains two basic types of communities: a densely populated area and a suburban area.

The two community types present different risks of fire incident impact as well as a varied level of service demand. Thus, each area has unique fire protection and emergency service requirements. These areas are delineated "service delivery planning zones," and are suitable for considering tiered response levels and system capacity.

It is a simple truth that the cost of fire protection and emergency services increases as the number of facilities, resources, and personnel increase. Resources are typically increased to achieve a reduced response time, faster assembly of an effective firefighting force, increased system capacity, and the ability to protect higher levels of risk. However, in Kirkland where there exists a variation in the levels of service demand and risk, it is also recognized that a single level of service delivery performance may not be appropriate.

In other words, a fire department that provides protection for a jurisdiction that is primarily dense urban residential, commercial, and industrial development may find a single service delivery performance plan to be perfectly appropriate. A department serving a community mix of dense urban areas as well as suburban areas will find this much more difficult. Were such a fire department to attempt to achieve the same level of response performance and resources for its suburban area as in the urban area, costs would be prohibitive. A smaller number of taxpayers and lower assessed valuation of the suburban portions of the City would not generate sufficient revenue to support the service. This is why many communities choose to deliver levels of service; levels that more closely match the risk and demand, as well as the expectations of the citizens.

KF&BD has not made use of service delivery zones; instead, single response standards for fire and EMS have been developed for the entire City.

### Urban Response Zones

Urban Response Zones are areas with high population density and greater community risk properties, corresponding with current higher service demand levels. Projected to remain an area of high service demand, urban areas should adhere to response time objectives that consist of a large number of apparatus and personnel resources and should include some overlapping coverage for fire stations that primarily serve this area. Response time performance relies on road network and speed limit levels. While the amount of road ways in the urban zones accounts for only a portion of the total roadway miles in the City, there are hindrances to fire response capability typical in urban environments. In the urban environ more turns are necessary to arrive at a destination, reducing the ability of a multi-ton fire apparatus to maintain speed. This, along with daytime traffic, signaled intersections, and narrow streets, impede response performance potential. The urban response zones where annual service demand exceeds 500 calls per square mile are located between Fire Station Nos. 21 and 27 and northwest of Fire Station No. 22. Redevelopment and new development may cause population densities to increase to the urban level in areas of the City.

### Suburban Response Zones

Suburban Response Zones extend from urban zones (usually along major arterials) and generally established neighborhoods of single family homes, recently developed, or have high growth potential. Suburban areas extend out from the Kirkland's core, along Interstate 405, and to all corners of the City. There are other pockets of residential/commercial development. The response time objective within the suburban zone can reasonably be slightly longer than the urban zone because of moderate call volume and a reduced level of community risk.

### Classification of Incident Risk Types for Deployment Planning

The Community Risk Assessment identifies both fire and non-fire risks in the City and places the risk in a risk category. Risk categories include:

- Maximum Fire Risk – Hazards that require the maximum amount of fire protection resources or which could result in the greatest loss of life or property.
  - Examples: Malls, multi-story apartments, large department stores, hotels, high-rises, theaters, entertainment centers, large industrial or commercial properties and hazardous materials production facilities.
- Special Hazard Fire Risk – Hazards which if destroyed would be a critical or essential economic loss to the community. This could also include cultural, environmental, governmental, or historical loss.
  - Examples: Strip centers, hospitals or medical facilities, apartment buildings of three or more stories, governmental infrastructure facilities, and schools.

- Typical Hazard Fire Risk – Those risks most common to Kirkland.
  - Examples: Single family housing, easily accessible one and two story apartments, low risk industrial properties, and commercial properties under 10,000 square feet.
- Remote Hazard Fire Risk – Those risks most distant from other risks as to be almost unique to the City.
  - Examples: Rural land, unoccupied structures, and recreational areas, parks, etcetera.
- Non Fire-Maximum Hazard Risk – Hazards not involved with fire which require the maximum amount of fire department manpower to control or hazards which could result in the greatest loss of life or property.
  - Examples: Water plants, health care centers, large employer business facilities, power plants, chemical storage facilities and oil refineries.
- Non Fire-Special Hazard Risk – Hazards not involved with fire that could pose a special fire department manpower requirement.
  - Examples: Stadiums, auditoriums, and large recreational facilities.
- Non Fire-Typical Hazard Risk – Hazards not involved with fire which generally are typical in nature in the City.
  - Examples: Single family residences, freeways, apartments, and motor vehicle accidents.
- Non Fire-Remote Hazard Risk – Hazards not involved with fire which present a unique problem with efforts towards rescue, hazardous materials, and EMS services.
  - Examples: Railroads, canals, block parties, stadiums (soccer), malls, and lakes.

ESCI recommends that the completed risk assessment be managed by the KF&BD Fire Prevention Division. The risk assessment should be provided to all fire companies, administration and staff through an RMS, and should be updated on a predetermined schedule.

#### Critical Tasking by Incident Risk Type

Risk-based critical tasking and resources for structure fires is one type of incident that KF&BD responds. It should be understood, however, that today's fire departments respond to many other incidents besides structure fires, including hazardous materials incidents, motor vehicle collisions, basic and advanced life support incidents, and non-structural fires.

Critical tasks are those activities that must be conducted in a timely manner by firefighters and EMS personnel at emergency incidents in order to control the situation, stop loss, and perform necessary tasks required for a medical emergency. KF&BD is responsible for assuring that responding companies are capable of performing all of the described tasks in a prompt,

efficient, and safe manner. Figure 106 is an example of critical tasking for non-structure fire events and Figure 107 is for a motor vehicle collision with entrapment.

**Figure 106: Non-Structure Fire Critical Tasking**

Task	Personnel
Command	1
Pump Operator	1
Primary Attack Line	2
<b>Total</b>	<b>4</b>

**Figure 107: Motor Vehicle Collision with Entrapment Critical Tasking**

Task	Personnel
Command	1
Pump Operator	1
Primary Attack Line	2
Extrication	3
Patient Care	2
<b>Total</b>	<b>9</b>

ESCI recommends that field validation exercises be conducted to verify minimum staffing criteria of critical tasking. Following field validation, KF&BD may find that critical task staffing can be adjusted either upward or downward for each incident type. Additionally, some incidents may require automatic/mutual aid response to supply the personnel necessary to meet all critical tasking needs.

KF&BD will need to rely on mutual aid (preference for automatic aid) to achieve the number of apparatus and personnel needed for a high or maximum risk structure fire, hazardous materials, or technical rescue incident and incidents in outlying sections of the City. The reason for a large number of apparatus is related to equipment needs, such as air packs, hand tools, and hose lines, rather than pumping capacity. Actual apparatus and equipment needs may vary, based on incident type and magnitude.

### Performance Expectations

There are time points and time intervals (continuum) that when recorded and analyzed against benchmarks become the basis for making modifications, additions, and deletions of resources. A set of time definitions includes:

- **Event Initiation** – The point in time when events occur that may ultimately result in an activation of the emergency response system. Precipitating factors can occur seconds, minutes, hours or even days before there is a perception that an event is occurring. For example, a person may ignore chest discomfort for days prior to making a decision to

seek assistance. Rarely is it possible to quantify the point at which event initiation occurs.

- **Emergency Event** – The point in time when conditions exist that cause an activation of the emergency response system. Considered the “point of awareness,” it may be the recognition by an individual that assistance is needed or it may consist of a mechanical or electronic recognition of an event such as smoke or heat detector activation.
- **Alarm** – The point in time when the emergency response system is activated. The transmittal of a local or central alarm to public safety answering point is an example of this time point. Again it is difficult to determine with any degree of reliability the time interval during which this process occurs.
- **Notification** – The point in time when an alarm is received by the agency, generally at a 9-1-1 communications center.
- **Alarm Processing** – The time interval from the notification to the time when the dispatcher notifies the appropriate emergency responder. NFPA 1221 (2007) states that 95 percent of emergency call processing shall be completed within 60 seconds and 99% of emergency call processing shall be completed within 90 seconds (see Figure 108).
- **En Route** – The point in time when the responding company informs the communications center via MDT/MDC or radio they are responding (traveling out the door).
- **Travel Time** – The time interval from when the responding company reports en route to the arrival time on-scene at the emergency.
- **On-scene** – The point in time when the responding company physically arrives at the emergency site. This is applicable to fire and EMS incidents. For EMS incidents it is the point in time when patient contact is made. “On-scene” time is confirmed by the company officer notifying NORCOM via MDT/MDC or verbal confirmation via mobile radio.
- **Working Period** – The time interval from when the responding company arrives on scene to when the company goes back in service. This is the period when fire department personnel physically take steps to mitigate an event. This stage is dynamic due to various types of incidents, incident locations, time of day and year and emergency actions performed at the scene.
- **Back In Service** – The point in time when a company has mitigated the incident and is available to respond again. Units use the MDT/MDC or verbal confirmation to indicate that the company is “back in service.”

#### Dispatch Call Processing Time Objectives

Performance standards drive the staffing requirements for dispatch agencies. Operational performance requirements are the measurement of call answering and call duration/processing, up to and including, the point of initial dispatch. To underscore the importance of performance standards, *NFPA 1221*<sup>85</sup> notes compliance with performance standards “...shall be evaluated


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<sup>85</sup> *NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems.*



monthly using data from the previous month.” NFPA 1710<sup>86</sup> further defines this portion of call alarm time as call ring time, call processing time, and dispatch processing time. The following chart illustrates the benchmarks for performance measurements.

**Figure 108: Communication Center Performance Measurement Benchmarks**

Call Ring + Call Processing + Dispatch Time		
		
Call Ring Time	Call Processing Time <sup>87</sup>	Dispatch Processing Time
The time elapsed from time call enters the dispatch center telephone switch and the time elapsed until the call is answered. (Ring Time)	The time elapsed between call answer and entry into CAD with enough information for dispatch.	Dispatch processing time is the time elapsed between the call being time stamped for dispatch and the notification to the first unit for dispatch.
<b>NFPA STANDARD</b> 15 seconds, 95% of the time	<b>NFPA STANDARD</b> 60 seconds, 95% of the time	
<b>Call Answer + Processing + Dispatch</b> <i>Best Practice = 75 seconds</i>		

North East King County Regional Public Safety Communication Agency (NORCOM) serves as the community's public safety answering point (PSAP) for 9-1-1 calls and dispatching emergency resources including KF&BD. Data for analyzing recommended standards for call answering, call processing, and dispatching was outside of the scope of work for this project.

#### Company Turnout Time Objectives

Turnout time is defined as the period of time from receipt of dispatch to departure of the apparatus from its parked location. Total response time consists of three elements: alarm processing time, turnout time and travel time. Total response time can be critical to the outcome of an emergency incident. Safety considerations, traffic conditions, travel distance, and weather are examples of factors that influence travel time. KF&BD has little or no control over those factors but can control turnout time. Proper preparation and attitude are the primary elements that affect turnout time.

Different turnout time objectives are often implemented in recognition of the difference in preparation time to respond to incidents that require greater protective equipment. One

<sup>86</sup> NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.

<sup>87</sup> NFPA definition for call alarm time, call processing time, and dispatch time duration, NFPA 1710 Chapter 3, Section 3.3.37.1-3. ESCI utilizes the total call processing time, i.e. time on the phone for calculation of staffing data, and refers to this time as call duration.

standard is for the donning of PPE (personal protective equipment) for primarily EMS or non-emergent incidents. A turnout time for calls not requiring full PPE (turnout clothing), is often 60 seconds or less. For incidents with an IDLH (imminent danger to life and health) or the potential of an IDLH environment and atmosphere, the turnout time is 80 seconds or less.

Time of day has a bearing on turnout time. Turnout time when firefighters are asleep is generally longer.

Unusual circumstances may occasionally prevent an engine, aid unit, or other response company from meeting this standard. It is expected that turnout standards will be met without compromising safety during response.

ESCI recommends the following turnout standards be adopted by KF&BD:

- Turnout time for fire incidents between 0700 and 2200 hours of 80 seconds or less, 90 percent of the time
- Turnout time for fire incidents between 2200 and 0700 hours of 90 seconds or less, 90 percent of the time
- Turnout time for EMS incidents between 0700 and 2200 hours of 60 seconds or less, 90 percent of the time
- Turnout time for EMS incidents between 2200 and 0700 hours of 60 seconds or less, 90 percent of the time

Recording and benchmarking turnout time should be a regular measure of response time and service delivery.

ESCI recommends that KF&BD adopt the following total response time objectives. The following table (Figure 109 and Figure 110) details response by zone performance objectives for a two-tier response strategy for fire and EMS incidents.

**Figure 109: Response Zone Performance Objectives, 0700 and 2200 hours**

Modified Tiered					
Zone	Dispatch	Turnout	Travel	Total Response Time	Percentile
<b>Urban</b>					
Fire	60 seconds	80 seconds	4 minutes	6 minutes 20 seconds	90%
EMS	60 seconds	60 seconds	4 minutes	6 minutes	90%
<b>Suburban</b>					
Fire	60 seconds	80 seconds	5 minutes	7 minutes 20 seconds	90%
EMS	60 seconds	60 seconds	4 minutes 30 seconds	6 minutes 30 seconds	90%

**Figure 110: Response Zone Performance Objectives, 2200 and 0700**

Modified Tiered					
Zone	Dispatch	Turnout	Travel	Total Response Time	Percentile
<b>Urban</b>					
Fire	60 seconds	90 seconds	4 minutes	6 minutes 30 seconds	90%
EMS	60 seconds	60 seconds	4 minutes	6 minutes	90%
<b>Suburban</b>					
Fire	60 seconds	90 seconds	5 minutes	7 minutes 30 seconds	90%
EMS	60 seconds	60 seconds	4 minutes 30 seconds	6 minutes 30 seconds	90%

These response time objectives apply to the first due unit (engine company or aid unit). Specialty vehicles such as truck companies and hazardous materials units generally have longer response time objectives. Specialized response units are fewer in number, and typically cover a larger response area.

### Reporting Frequency and Format

KF&BD has a tremendous amount of data to record, manage, and retrieve when they need it. Compiling data and information into a digestible report can be time-consuming to draft and costly to produce. What data to include in a report and the format to present information is as important as the material contained in the document. KF&BD creates reports and documentation of a large variety for internal and external use, and to meet compliance with federal and state law. Required reports and records maintained by KF&BD include:

- Incident reports
- Patient care reports
- Exposure records for blood and airborne pathogens
- Fire prevention documents
- Compliance testing
  - SCBA
  - Hose
  - Ladder
  - Pump
  - Breathing air
  - Vehicles
  - PPE (personal protective equipment)
  - Gas monitors, radiological detectors

Other reports produced by the fire department are related to specific programs or for KF&BD as a whole. These reports include:

- Emergency management quarterly
- Staff
- Performance objectives
- Annual EMS training
- Fire cause determination

Some KF&BD reports and records are produced and retained in electronic format for easier production, storage, retrieval, replication, and cost. However, other records including fire prevention inspections remain in hard copy only. The Fire Prevention Bureau is waiting for New World system to become operational. Even with an available computer system, the bureau reports that it does not have resources to enter the data.

#### Internal to Department

Internal reports for KF&BD should at a minimum include:

- Fire Investigation
- Fire department annual report including performance and activities
- Risk and Hazard analysis
- Standard of Cover
- EMS QA (Quality Assurance)
- Response activity

A newer tool being employed to report and display information is referred to by the coined name “Dashboard.” With a dashboard a visual summary of data is displayed, generally at a high level. Dashboards are popular as they enable a manager to view several performance indicators at once.

According to an article in Businessweek “The dashboard is the CEO’s killer app. A must have, making the gritty details of a business that are often buried deep within a large organization accessible at a glance to senior executives.” Dashboards allow for managers to instantly view developments and trends, empowering them to make changes rapidly.

#### External to City Council and Community

Information needs of the City Council and community require different report formatting, data elements and distribution methods. Information that might be important internally to KF&BD

may not be relevant to other audiences. Customizing a dashboard application for City Council members to match their requests is a way to keep current data in front of policymakers. Dynamic linking to incident activity data, response times, fire inspections, financial information, and other material is possible. Some of ESCI's clients have gone to tablet devices for delivering agendas, meeting minutes, documents, and have installed a dashboard for elected officials.

ESCI recommends that KF&BD disseminate reports (information) in a dashboard display customized for the end user. With a dashboard a visual summary of data is displayed, generally at a high level and with a view of multiple performance indicators. Two sample customized dashboards for internal and external customers are shown in the appendices (Appendix H: Dashboard View Examples).

For many communities, social media websites have become common avenues for public agencies to disseminate timely topical information quickly, efficiently, and economically. The City of Kirkland has a Twitter account that is available to the fire department. Current use of Twitter by KF&BD was reported as little and often used after the fact. Other popular media websites employed by fire departments includes MySpace and Facebook.

### **Conclusion – Accountability and Reporting**

While the KF&BD is mostly meeting accountability and reporting requirements, there is a need for improvement. The accreditation process is one way for a fire department to make certain it is covering all of the accountability and reporting bases. The process of becoming an accredited agency is a time consuming, labor intensive, costly process. Therefore ESCI has recommended that the KF&BD make accreditation a long-term item and focus on other issues first.

In the last *Response Time Objectives Report* submitted (2010), KF&BD did not define the geographic areas where requirements are not being, explain predictable consequences, or the steps necessary to achieve compliance. The report does, include five initiatives in response to the report's information to address deficiencies and improve response times. KF&BD is meeting its stated response performance goals (including turn out time) approximately 50 percent of the time. KF&BD has not developed options to improve response performance. Without action to improve response time performance, subsequent reports will include similar results.

Tools for the reporting and archiving data and information of KF&BD activities are labor intensive. This is exemplified by the number of staff hours required to capture background

information for this study. Most of the improvements to reporting hinge on deployment of the New World CAD. Efforts should be directed at the implementation of the CAD system.

ESCI recommends that KF&BD disseminate reports (information) in a dashboard display customized for the end user. With a dashboard a visual summary of data is displayed, generally at a high level and with a view of multiple performance indicators.

### **Recommendation Summary – Accountability and Reporting**

- ❖ Recommendation 82: Develop a long-term plan to become a CFAI accredited fire agency. (Implementation Order 9)
- ❖ Recommendation 83: Define and report (Response Time Objectives Report) geographic areas where response time objectives are not being met. Include information on predictable consequences and steps to achieve compliance. (Implementation Order 7)
- ❖ Recommendation 84: Determine the cause of the dramatic decrease in the percent of full alarm assignment deployments. Develop a plan to reach the stated deployment goal of 90 percent. (Implementation Order 6)
- ❖ Recommendation 85: Adopt a two tiered response time objectives for fire, EMS, hazardous materials, technical rescue, and specialized rescue incidents. (Implementation Order 3)
- ❖ Recommendation 86: Risk assessment RMS should be managed by the KF&BD Fire Prevention Division. (Implementation Order 8)
- ❖ Recommendation 87: Develop and adopt response time intervals, benchmark, and review at a minimum annually. Response time benchmarks should be monitored and analyzed to determine factors causing trends including increased service demand, concurrent alarms, and staffing levels. (Implementation Order 2)
- ❖ Recommendation 88: NORCOM – Establish communication center performance measurement benchmarks that meet national standards. (Implementation Order 5)
- ❖ Recommendation 89: Adopt turnout time standards based on incident type and time of day. (Implementation Order 1)
- ❖ Recommendation 90: Integrate the New World RMS (records management system) with emergency management plans, records, and reports. (Implementation Order 4)





## **Strategic Plan Recommendations and Priorities**

Today's fire service providers face ever-increasing challenges to provide more diverse services in their community while competing with other departments for funding, as cities strive to meet the expectations of citizens for facilities, amenities, and services. The type and number of calls for service are in flux as demographics change. These trends place increased pressure on the modern fire service manager, policy makers, and staff to come up with ways to be more efficient and effective.

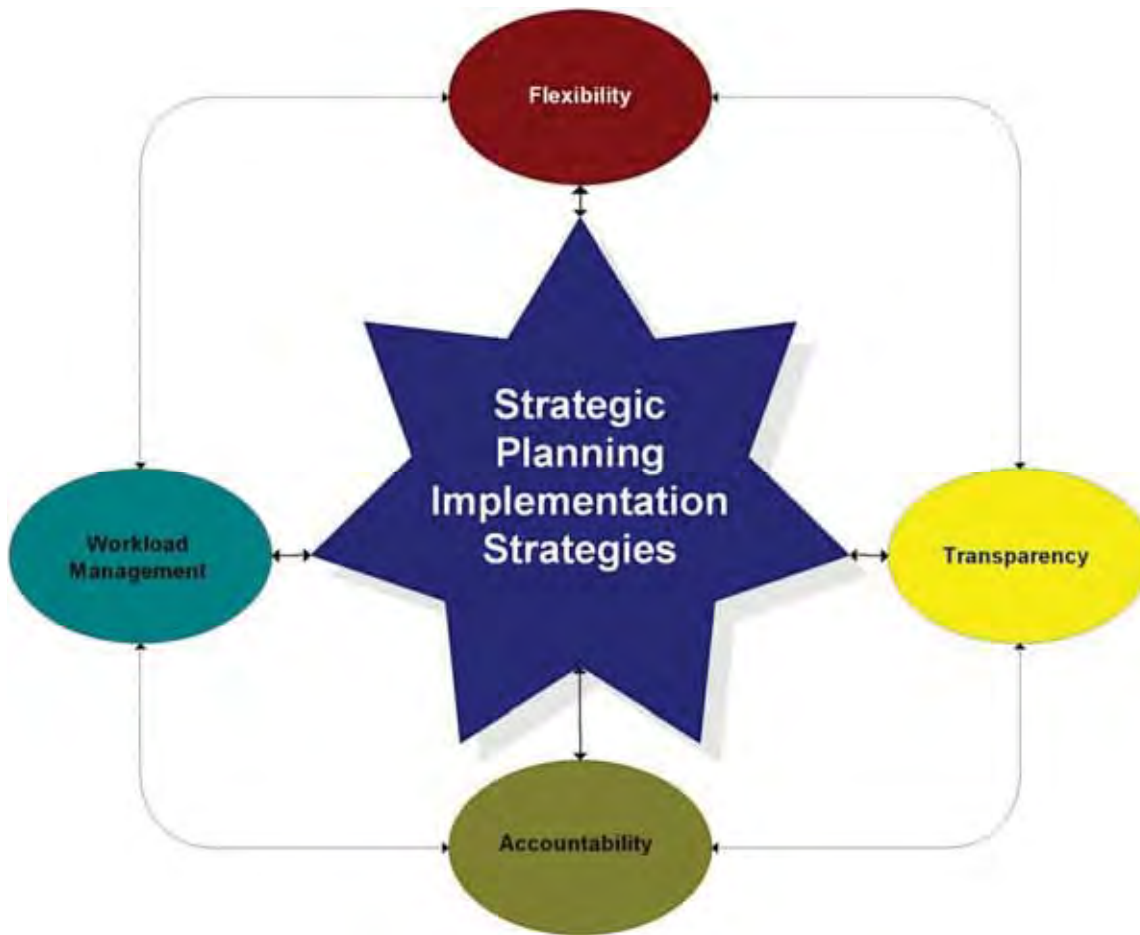
To ensure that community, policymaker, administration and internal customer needs were incorporated, a process was used to develop recommendations and priorities for the KF&BD strategic plan.

Goals and objectives are management tools that should be updated on an ongoing basis to identify what has been accomplished and to note changes in the organization and the community. The attainment of a performance target should be recognized and celebrated to provide a sense of organizational accomplishment. Overall these goals and objectives provide very specific timelines for the next several years and more general timelines beyond that.

City and leadership of the KF&BD should meet periodically to review progress towards these goals and objectives and adjust timelines and specific targets as needs and the environment change.

### **Implementation Methodology**

The key to the success of a strategic plan is its implementation. A successful implementation methodology (strategies) includes assigned responsibilities for the overall management of the plan; ensuring that there is accountability at all levels; the incorporation of the accomplishment of goals, objectives, and critical tasks into individual performance appraisals; routine reporting of the status of the plan; organizational and community reporting; and the regular updating of the plan and its content.



The following are ESCI's recommended top priority goals based on the input of the community, elected officials, the City of Kirkland administration, city staff, and KF&BD personnel.

### **Recommended Top Priority Goals**

#### **Goal No. 1: Administrative Infrastructure**

(Administrative and support staff realignment, administrative rules, and guidelines)

##### **Goal Statement:**

Build an administrative infrastructure that efficiently provides administration and support functions for KF&BD.

##### **Problem Statement:**

The administrative effectiveness of KF&BD is hindered by four key deficiencies:

1. Policies & Procedures, Rules & Regulations, and Administrative Guidelines, collectively referred to as Guidance & Regulatory (G&R) documents, which govern the day-to-day activities of the workforce, are out of date, ineffective, and confusing. Numerous attempts at revising these critical documents have not been successful. Variations exist

between the city and KF&BD policies and procedures including safety, purchasing, public access to records, and document retention.

2. Job descriptions for key administrative staff positions (deputy chief) do not properly reflect the actual work performed or that should be performed. Assignments cross from one Division (Bureau) to another and do not adequately reflect the executive level of the organization.
3. An inefficient administrative structure hampers both strategic and day-to-day effectiveness. The work focus of the administrative deputy chief is unnecessarily narrow. Emergency management activities take up at least half of the administrative deputy chief's time, reducing availability to perform other duties—management of HR, financial, and IT functions and planning activities of the fire department.

A misalignment occurs with the EMS officer under the administrative section of the department, these duties align with the emergency operations. A more focused management of the EMS program is recommended with a Medical Service Administrator (MSA) at the rank of division chief to have oversight of the medical division.

The operations deputy chief is underutilized in supervising the three emergency operations battalion chiefs (one per day) and the training chief (part of the East Metro Training Group).

4. A limited number of mid-level specialists and support staff reduce the effectiveness of the administrative function by shifting that workload to higher level personnel, personnel that should be focused on providing high level oversight and direction to the organization. The more task oriented the top administration members are, the less likely they are to provide strategic and organizational guidance and to maintain a future orientation. Current staff support and administration comprises 13 percent of the total KF&BD employees. A more typical percentage for agencies of similar size and character as KF&BD falls within a range of 15 to 20 percent range.

#### Recommended Actions:

- Recommendation 1: Amend job descriptions to accurately reflect roles and expectations for administration and support staff. Page 51
- Recommendation 6: Add a Medical Service Administrator (MSA) at the rank of division chief to manage the medical division. Page 51
- Recommendation 8: Add one FTE administrative assistant for EMS and one FTE financial analyst to administrative support functions. Page 51
- Recommendation 11: Outsource development and maintenance of Administrative Rules and Standard Operating Guidelines to a third party. Development and maintenance of Administrative Rules and Standard Operating Guidelines should include involvement of the City human resource department. Page 78
- Recommendation 12: Develop a succession plan to ensure employees are recruited and developed to fill each key role within the organization. Page 79
- Recommendation 31: Hire a full-time City emergency manager, shifting daily responsibilities from the Deputy Chief of Administration to the emergency manager. Page 88

**Implementation Metrics:**

- Guidance & Regulatory documents are revised, reviewed by HR and IAFF leadership, approved and implemented by October 1, 2013.
- Percentage of administrative and staff support positions to total employees fall within 15 to 20 percent range by January 1, 2014.
- Eighty percent or greater ( $\geq 80\%$ ) of the annual work performed by the administrative staff is reflected in their job descriptions as measured on January 1, 2014.
- A succession plan has been outlined and delivered to the members of KF&BD by January 1, 2014.

**Resources Required:**

- Administrative deputy chief to make management of the administrative infrastructure a priority.
- HR to collaborate with KF&BD on job description evaluation and adjustment.
- HR to collaborate with KF&BD on recruitment and hiring to fill recommended positions.
- HR to collaborate with KF&BD and IAFF leadership to identify key positions, develop and adopt a succession plan.

**Goal No. 2: Staffing and Deployment**

(Swing staffing of aid units and engine/ladder companies and staffing levels)

**Goal Statement:**

Increase the ready availability of fire apparatus and personnel.

**Problem Statement:**

KF&BD is dependent on neighboring agencies for the provision of apparatus and personnel on routine structure fire incidents and many emergency medical responses. Resources are deployed in a manner which routinely reduces the number of fire and EMS units and personnel that are available in the City. A crew “swings” from a fire engine to an aid unit to respond with the appropriate apparatus, leaving a key piece of equipment unstaffed and unavailable until the first incident is concluded and the personnel return to quarters. This occurs in every KF&BD fire station. The City is routinely exposed to insufficient resources to handle a structure fire, as many of the firefighting resources are deployed on EMS incidents. This substantially increases the reliance upon neighboring agencies and delays response to in-city emergencies.

**Recommended Actions:**

- Recommendation 3: Increase emergency operations by adding a BLS aid unit staffed between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire event. Page 51
- Recommendation 45: Update KF&BD Department Manual Directive Number 3.001 to accurately reflect current daily minimum staffing level. Page 208

- Recommendation 46: Maintain a minimum per shift of two personnel (swing personnel) at firefighter EMT, two at lieutenant, and two at the captain rank with the qualifications and appropriate certifications to fill vacancies or step-up. Page 208

#### Implementation Metrics:

- Bargain mandatory subjects related to alternative work schedules to accommodate half-shift BLS unit addition by January 1, 2014.
- Increase staffing to implement half-shift BLS unit by January 1, 2014.
- Bargain mandatory subjects related to modification of employee wellness program to reflect job-relatedness by January 1, 2014.
- Engage the services of an Occupational Medicine professional to guide the development and implementation of a job-related wellness program, including establishment of baseline medical standards, entry level and incumbent testing, by January 1, 2014.
- Implement holistic employee wellness program as above by July 1, 2014.

#### Resources Required:

- Emergency operations deputy fire chief to manage the staffing and deployment priority.
- Bargain with IAFF Local on hours and working conditions modifications related to implementation of an 8:00 a.m. to 8:00 p.m. BLS unit, the implementation of medical testing standards, and a work-related wellness program.
- HR to work with KF&BD in reviewing sick leave and work-related injury occurrences (compliant with the Washington Privacy Act and federal HIPAA regulations) to identify work practices or exposures which lead to time loss and staffing reductions and remediate those work practices.
- KF&BD to work with an Occupational Medicine organization to establish a medical baseline, develop a medical stress test for entry and incumbent firefighting personnel, and design a validated physical evaluation process.

### **Goal No. 3: Outreach and Education**

(PIO, PEO, and community preparedness)

#### Goal Statement:

Provide contemporary, practical fire prevention, EMS, and emergency management education and informational services to the community.

#### Problem Statement:

The public information function for KF&BD is handled by the City Communications Program Manager (CPM). A barrier identified to the success is the availability of KF&BD administrative staff to respond promptly to CPM requests for information or when a time sensitive story must be approved prior to release. The delay reduces the value of the release to the media, who are unlikely to use "dated" information. At a point when important information must be shared by KF&BD with the media, members of the media are more likely to disregard it since that has become their conditioned response.

Public education is performed on an as-available basis. The fire and life-safety public education efforts of the KF&BD are significantly limited with the elimination of the single fire department community education specialist at the end of 2010. ESCI found that that virtually all public education efforts outside of some limited special requests have been discontinued since then.

While KF&BD is exploring alternative strategies to maintain its public education efforts, there is no clear plan in place to delineate the department's strategy, goals, and methodologies. KF&BD needs a community outreach plan to help citizens understand what firefighters do, the challenges they face, and things the community can do to help reduce demand and invest in protecting themselves.

#### Recommended Actions:

- Recommendation 13: Prioritize media messaging. Use "Currently Kirkland" and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages. Page 79
- Recommendation 14: Anticipate controversies or events which may generate media or community interest and develop a media or messaging plan in advance. Page 79
- Recommendation 15: Develop a proactive message file where the subject is not time-sensitive, but timely release may position the message to its greatest advantage. Page 79
- Recommendation 16: Develop interactive content for the fire department website: citizen training videos and downloadable documents (fire escape plans, preparedness, and self-help checklists). Page 79
- Recommendation 17: Update existing content on the fire department website and schedule regular maintenance. Page 79
- Recommendation 40: Develop, adopt, publish, and implement a KF&BD Public Education Plan. Page 96
- Recommendation 41: Form regional partnerships for the development and deployment of public fire and life safety education initiatives; also rotate operations personnel to deliver a structured curriculum. Page 96
- Recommendation 42: Rotate emergency operations personnel to a temporary duty assignment as a public educator to deliver the public education curriculum. Page 97
- Recommendation 43: Employ electronic information media from the United States Fire Administration and NFPA for linking or posting and making available on the Kirkland website. Page 97
- Recommendation 44: Create partnerships with other public agencies and private sector companies to provide public education and information to the citizens of Kirkland. Page 97

#### Implementation Metrics:

- Develop a community outreach plan and schedule, utilizing *Currently Kirkland*, to provide contemporary information, education and awareness to the community related to risk reduction and self-preparedness by January 1, 2013.
- Implement the above-referenced plan by January 1, 2013.



- Add interactive games, self-help tools, instructional videos and contact request forms to the KF&BD website by July 1, 2013.
- Provide public education training to line personnel and facilitate outreach at the company level by July 1, 2013.
- Approach neighboring agencies to form partnerships and consortia related to public education by January 1, 2014.

Resources Required:

- Administrative deputy fire chief to manage community outreach and education priority.
- Communication Program Manager to work with KF&BD to assist in developing *Currently Kirkland* programming schedule which provides outreach, education and information to the community.
- KF&BD work with the City's Communications Program Manager (CPM) to develop web content which aids in educating and equipping the community to be more disaster resistant/resilient.
- Prevention bureau and emergency management staff to provide public education training to line personnel.

**Goal No. 4: Performance**

(Response time)

Goal Statement:

Develop, measure, and meet response and measurable performance benchmarks.

Problem Statement:

KF&BD is meeting its stated response performance goals (including turn out time) approximately 50 percent of the time. Difficulty in acquiring complete response data is inhibiting the KF&BD from analyzing and compiling accurate response activity.

Multiple false and nuisance responses reduce availability of fire and EMS units for emergency response.

Recommended Actions:

- Recommendation 54: Monitor mutual and automatic aid for equity. Page 209
- Recommendation 57: Expand Chapter 21.35A of the Kirkland Municipal Code to include response by KF&BD to repeat false or malicious fire alarms. Page 209
- Recommendation 83: Define and report (Response Time Objectives Report) geographic areas where response time objectives are not being met. Include information on predictable consequences and steps to achieve compliance. Page 227
- Recommendation 84: Determine the cause of the dramatic decrease in the percent of full alarm assignment deployments. Develop a plan to reach the stated deployment goal of 90 percent. Page 227



- Recommendation 85: Adopt a two tiered response time objectives for fire, EMS, hazardous materials, technical rescue, and specialized rescue incidents. Page 227
- Recommendation 87: Develop and adopt response time intervals, benchmark, and review at a minimum annually. Page 227
- Recommendation 88: NORCOM – Establish communication center performance measurement benchmarks that meet national standards. Page 227
- Recommendation 89: Adopt turnout time standards based on incident type and time of day. Page 227

Implementation Metrics:

- Expand Chapter 21.35A of the Kirkland Municipal Code to include response by KF&BD to repeat false of malicious fire alarms by January 1, 2013.
- Complete a review and modification of KF&BD staffing, deployment, and service demand and establish realistic response time targets, January 1, 2013.
- Execute an interlocal agreement between Kirkland and Northshore Fire Department is executed to provide for joint staffing of the Finn Hill/South Kenmore Station, January 1, 2014.

Resources Required:

- Emergency operations deputy fire chief with Kirkland City Attorney develop proposed amendment to Chapter 21.35A of the Kirkland Municipal Code.
- Emergency operations deputy fire chief develop a modified staffing, deployment, and service strategy for review and approval of the Kirkland City Council.
- Fire chief to work with Northshore Fire Department fire chief to develop interlocal agreement for funding, siting, constructing and staffing a fire station serving the Finn Hill/South Kenmore area.

**Goal No. 5: Partnerships**

(Training, maritime response, joint staffing of fire stations, RFA)

Goal Statement:

Develop partnerships with neighboring fire and EMS agencies to improve services and the level of service in a cost efficient manner.

Problem Statement:

The Kirkland community expects service delivery for a set of high-risk and low-frequency incidents, which result in significant expense to the City. This creates challenges in three key areas:

- The training function is unsettled in that the East Metro Training Group is an informal but sanctioned confederation of agencies, yet total reliance is placed in this effort for ongoing training of KF&BD personnel.
- KF&BD is not adequately equipped to deliver services for marine fire and rescue incidents despite being home to a significant waterfront community.

- Service delivery in the area commonly referred to as Finn Hill (Fire Station 24) is outside acceptable response time parameters for effective fire and EMS response. Response volume is low in this area.

#### Recommended Actions:

- Recommendation 75: Jointly construct and staff a new fire station with Northshore FD. The fire station should be located in an area to serve the Finn Hill neighborhood and Northshore FD. Page 210
- Recommendation 80: Expand the current partnership with the King County Sheriff's Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to marine firefighting and rescue incidents. Page 210

#### Implementation Metrics:

- An interlocal agreement is executed establishing the formal scope of work provided by the East Metro Training Group by July 1, 2013.
- An interlocal agreement is established to provide a coordinated response to marine firefighting and rescue incidents in the Kirkland waterfront in partnership with the King County Sheriff's Marine Unit by July 1, 2013.
- A suitable site for construction of a fire station serving the Finn Hill/South Kenmore area is identified and acquired in partnership with Northshore Fire Department by January 1, 2014.
- Design and construction of a fire station serving the Finn Hill/South Kenmore area is conducted in partnership with Northshore Fire Department by January 1, 2015.
- An interlocal agreement between Kirkland and Northshore Fire Department is executed to provide for joint staffing of the Finn Hill/South Kenmore Station January 1, 2014.

#### Resources Required:

- Fire chief or designee to manage the cooperative partnerships priority.
- Fire chief or designee to meet with counterparts from member agencies of EMTG to develop scope, funding, structure, and resource sharing language.
- Fire chief or designee to work with Kirkland City Attorney to develop interlocal language establishing the East Metro Training Division.
- Fire chief or designee to work with King County Sheriff and Kirkland City Attorney to develop interlocal agreement for marine firefighting and rescue response partnership.
- Fire chief to work with Northshore Fire Department fire chief to develop interlocal agreement for funding, siting, constructing and staffing a fire station serving the Finn Hill/South Kenmore area.

### **Strategic Goals**

The following are ESCI's recommended strategic goals internal to the KF&BD. Community members, policymakers, administration, and KF&BD personnel participated in a two day process to assist in developing priorities for the Kirkland Fire and Building Department strategic plan. Five of the seven are incorporated as top priority goals. The remaining two are internal strategic organizational goals that meld with the validated mission, vision, and values of the KF&BD.

#### **Strategic Organizational Goal No. 1: KF&BD Branding**

##### **Goal Statement:**

Create an attractive brand for KF&BD to inform and market our services

*Be known for consistently meeting our citizens' needs. Epitomize a winning "major league" team; with efforts that build community ownership and pride in our brand.*

"Brand" is used here to focus on the Kirkland Fire and Building Department as a singular entity. While it is true that the KF&BD is part of the City of Kirkland, which has a global brand and



identity that is inclusive of all departments and services the city provides including the fire service, it is also important to define what each component of the city is and does. KF&BD is a subset of the City of Kirkland, and it is important to clearly define and describe what it stands for as a discrete department and service. "Market" is used here to

describe an effort to inform and educate the citizens of Kirkland about the services the KF&BD provides.

This will be accomplished by seeking first to understand the community perceptions of the KF&BD. To the extent there are gaps between reality and perception, the members of the KF&BD must assess whether improvement must be made internally, or misperceptions must be addressed by communicating the actual facts to the community. Mechanisms or vehicles must

be identified and/or developed to deliver a clear and consistent message to the community by the KF&BD, supported by the City of Kirkland.

**Objective 1-A:**

Acquire an experienced public information officer (PIO) to develop, manage, and be the voice of the KF&BD to the community

Priority: High

Timeline: Short Term (0 – 12 months)

Responsibility: TBD

**Critical Tasks:**

- Establish the requisite knowledge and skills for a public information officer (PIO).
- Address wages, hours, and working conditions with local union (if required).
- Recruit, screen, and select a capable candidate(s) for the role of PIO.
- Determine critical knowledge and skill gaps for the PIO.
- Identify and provide training to address gaps.
- Determine equipment and resource needs.
- Secure funding for training and equipment.
- Establish reporting and accountability relationships for the PIO.
- Authorize PIO work program to begin.

**Performance Indicators:**

- Formal job description developed and approved.
- Job announcement published throughout KF&BD.
- Suitable candidate(s) identified and selected.
- PIO is introduced throughout KF&BD.

**Outcome:**

Capable Kirkland personnel, equipped with critical resources, develop, implement, train, and lead the KF&BD's public information initiative.

**Objective 1-B:**

Develop and implement a Marketing Plan (Internal & External)

Priority: Medium

Timeline: Mid Term (12 – 24 months)

Responsibility: TBD

Critical Tasks:

- Establish baseline of what the general public of Kirkland knows and understands regarding the services and capabilities of KF&BD.
- Establish baseline of what City of Kirkland employees and department directors know and understand regarding the services and capabilities of KF&BD.
- Conduct gap analysis (what we do that we want them to know).
- Determine key messages and activities.
- Determine which avenues, media, and venues will best achieve public awareness.
- Determine KF&BD's mechanisms for message delivery.
- Develop a KF&BD Marketing Plan and implement.
- Develop strategies to fully meet general public and City team member awareness needs.
- Implement outreach programs to address gaps.

Performance Indicators:

- Public awareness and opinion assessment tool is developed, deployed, and results tabulated.
- Key awareness gaps and opinion deficits are identified.
- Marketing plan is drafted, reviewed, approved, and implemented.
- Supervisors throughout KF&BD are fully aware of the plan and committed to fulfill identified roles.
- Key messages are transmitted and activities occur.
- Public awareness and opinion assessment tool is re-deployed; results are tabulated and compared with initial results to measure effectiveness.

Outcome:

The general public and City of Kirkland employees are acutely aware of the KF&BD's services, capabilities and limitations. They are armed with needed information to protect themselves, appropriately access emergency fire and rescue services, and support KF&BD in a partnership role.

**Objective 1-C:**

Develop Positive Partnerships with Community

Priority: High

Timeline: Short Term (0 – 12 months)

Responsibility: TBD

Critical Tasks:

- Identify key partnership groups; e.g., employee groups, labor groups, media, City Council, business community (chamber of commerce), and neighborhood groups.
- Identify KF&BD contacts for each group or groups within a category.
- Develop a consistent group contact methodology and message.
- Develop objectives, draft schedule, and plan for outreach.
- Obtain management approval from KF&BD and Kirkland City Manager.
- Launch the contact initiatives.

Performance Indicators:

- Target groups respond and express interest in working together.
- Target group leaders acknowledge the KF&BD has been helpful to them and supported their mission.
- Target group leaders and members support KF&BD initiatives and programs.

Outcomes:

- KF&BD members are actively involved with and support the efforts and programs of their partners.
- Partner groups can articulate the role and importance of the functions of KF&BD.
- Partner group leaders speak out to support the mission and programs of KF&BD.

**Strategic Organizational Goal No. 2: KF&BD Internal (City) Relationships**

Goal Statement:

Enhance a positive culture with internal customers; KF&BD and other City Departments

*We believe there are misconceptions about our department and the services we provide by our colleagues in other departments of the City. We also believe that we have misconceptions about our colleagues in other departments of the City. We believe that greater understanding by all City employees of the duties and challenges each department is confronted with will lead to greater unity within the City, a positive enhancement to the culture within the workplace, and enhanced services to our citizens.*





There is ample anecdotal evidence that employees of the City Kirkland have wide misconceptions of the work KF&BD personnel perform. Some employees have openly discussed that the root cause of one department not receiving necessary equipment or support to perform their tasks is the overtime expenditures incurred within the KF&BD, for example. There are also perceptions within the KF&BD that some

departments within the City of Kirkland create barriers and roadblocks to expenditures requested by the KF&BD, delaying or defeating efforts to acquire necessary resources. Neither perception is accurate, but the perceptions highlight the need for greater understanding by and between departments.

This understanding will likely improve if each department having such perception issues were to gain a clearer perspective of the challenges and requirements each department faces by first hand observation. Thus, a condensed “job aware” program should be implemented, allowing select employees from one department to gain insights into the challenges and requirements of the others in a scheduled job shadowing experience or job demonstration event.

Further, improved interpersonal relationships create pathways to friendly discussions that lead to greater understanding between employees and, ultimately, departments. This can be done by creating social opportunities to mix employee groups in a non-threatening environment, breaking down perceived barriers.

#### **Objective 2-A:**

Describe importance of a positive culture among and between internal customers – our colleagues – to KF&BD employees

Priority: High

Timeline: Short Term (0 – 12 months)

Responsibility: TBD

#### **Critical Tasks:**

- Assign internal task force to coordinate KF&BD education effort.



- “Own” our contribution to the misperceptions.
- Identify the scope/magnitude of the problem (city-wide surveys).
- Educate KF&BD membership about current relationship and the need to improve it.
- Describe business need to improve understanding by and between departments.
- “Seek first to understand, then to be understood.”

Performance Indicators:

- KF&BD Task Force has been created and members identified.
- Survey results have been compiled, categorized, and interpreted.
- Results of survey have been shared with KF&BD employees in interactive sessions with Q&A opportunities.
- Critical linkages between KF&BD and other City departments have been identified and described.
- Ideas for improvement have been generated by rank and file members.

Outcomes:

- KF&BD employees recognize the importance of a positive culture between departments of the City of Kirkland.
- KF&BD employees are committed to improving the culture through a greater understanding and an openness to accept differences between departments and missions.

**Objective 2-B:**

Implement “Job Awareness” events aimed at service-level providers which is relevant and contemporary

Priority: High

Timeline: Mid Term (12 -- 24 months)

Responsibility: TBD

Critical Tasks:

- Task Force approaches City of Kirkland department heads, with City Manager approval, and presents concept to management team to gain support.
- Encourage other departments to establish mirror task forces within their own departments.
- Task Force develops KF&BD Job Awareness curriculum for internal consumption.
- Task Force provides train-the-trainer education to those who will deliver Job Awareness curriculum within KF&BD.
- Implement training curriculum with interested parties within the City of Kirkland.

- Seek members from within KF&BD to participate in other departments' job awareness events with a commitment to share their perspective with internal colleagues upon completion.

**Performance Indicators:**

- Task force at KF&BD is robust and active.
- Task forces at other City departments are formed and active.
- KF&BD members seeking to receive train-the-trainer education is high.
- Cross-departmental participation in job awareness events is high.
- Post event surveys reveal a marked improvement in understanding by employees of other departments.

**Outcomes:**

- Employees throughout the KF&BD and the City of Kirkland can articulate the role and importance of the functions of various City Departments.
- Employees from participating departments demonstrate a deeper understanding of the challenges and requirements of the other lines of business within the City of Kirkland.
- Employees are motivated to continue and expand the job awareness program throughout the city.
- An improved internal customer culture exists.

**Objective 2-C:**

Implement activities to enhance cross-departmental relationships

Priority: Medium

Timeline: Ongoing

Responsibility: TBD

**Critical Tasks:**

- Representatives from each participating departmental task force form an all-city activities team.
- Team identifies activities which enhance cross-departmental participation in social settings.
- Hosts are identified for each activity, rotating the host responsibilities.
- Where costs are incurred, activities team seeks outside sponsors of these events.
- Annual recognition program is created where employees nominate their colleagues from other departments in recognition of the embodiment of the positive culture goal.

**Performance Indicators:**

- Attendance at these activities is high and grows each year.

- Feedback from participants is positive and encouraging, including suggestions for other types of activities which enhance the positive culture goal.
- Attendees don't cluster within homogenous workgroups, but mixes well with colleagues from other departments.

Outcomes:

- KF&BD personnel actively interact, support, assist, and promote a collegial relationship with all City of Kirkland employees.
- City of Kirkland department personnel actively interact, support, assist, and promote a collegial relationship with KF&BD personnel.
- Employees see themselves not just as a member of a department, but also as part of a larger organization, committed to the larger organization's success.
- Employees look forward to activities which provide opportunity to "cross-pollinate"<sup>88</sup> with their colleagues from other departments.
- An improved internal customer culture exists.

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<sup>88</sup> To influence or inspire (another), especially in a reciprocal manner  
<http://www.answers.com/topic/cross-pollinate#ixzz1xoorGQwp>.

### **Prioritization of Short and Mid-Term Recommendations**

The following list summarizes all of the recommendations provided throughout this report that are achievable in the short or mid-term, typically within a maximum of five years. These recommendations have been compiled into a prioritized list for easy reference and include the page number where they are located within the body of the report. The prioritization system is as follows.

#### **Priority 1 – Immediate Internal Safety**

These recommendations deal with an improvement or initiative that solves an issue affecting the safety of firefighters and/or other personnel. These are not matters that simply make it easier to do a particular function but in fact make a currently unsafe situation, safe.

- ❖ No recommendations were identified that fit this priority

#### **Priority 2 – Legal or Financial Exposure**

These recommendations resolve a situation that is creating, or is likely to create, the opportunity for legal action against the entity or its officials. It also may be a situation that could subject the entity to a significant expense.

- ❖ Recommendation 11: Outsource development and maintenance of Administrative Rules and Standard Operating Guidelines to a third party. Development and maintenance of Administrative Rules and Standard Operating Guidelines should include involvement of the City human resource department.
- ❖ Recommendation 14: Anticipate controversies or events which may generate media or community interest and develop a media or messaging plan in advance.
- ❖ Recommendation 18: Administer a stress test at the time of hire and periodically on incumbent employees/members based on age and risk factors.
- ❖ Recommendation 22: Establish a medical baseline for new firefighters at the time of hire/appointment.
- ❖ Recommendation 53: Store PPE in a separate, well ventilated room.

#### **Priority 3 – Corrects a Service Delivery Issue**

These recommendations address service delivery situations that, while they do not create an immediate safety risk to personnel or the public does affect the Department's ability to deliver service in accordance with its standards of performance. For example, adding a response unit to compensate for a growing response workload or delivering training needed to allow personnel to deal effectively with emergency responses already being encountered.

- ❖ Recommendation 1: Amend job descriptions to accurately reflect roles and expectations for administration and support staff.

- ❖ Recommendation 4: Request WSRB to conduct an evaluation of the fire and suppression capabilities of KF&BD.
- ❖ Recommendation 7: Bill for EMS transport when responding and transporting patients outside of the City of Kirkland.
- ❖ Recommendation 9: KF&BD review and validate the mission, vision, and values following completion of the 2012 strategic plan.
- ❖ Recommendation 10: Display the adopted mission, vision, and organizational values in City Hall and fire department facilities.
- ❖ Recommendation 12: Develop a succession plan to ensure employees are recruited and developed to fill each key role within the organization.
- ❖ Recommendation 25: Develop and implement a plan outlining how volunteers will be used and managed during emergency events.
- ❖ Recommendation 26: Identify a location and develop a dedicated EOC; apply for a matching grant from the Washington EMD Emergency Operations Center Grant Program (requires a 25 percent local match).
- ❖ Recommendation 32: Integrate KF&BD fire prevention records management with the EnerGov RMS software used by the Building Division.
- ❖ Recommendation 34: Develop and adopt a plan for the maintenance, repair, and flow testing of all fire hydrants in the City of Kirkland.
- ❖ Recommendation 45: Update KF&BD Department Manual Directive Number 3.001 to accurately reflect current daily minimum staffing level.
- ❖ Recommendation 54: Monitor mutual and automatic aid for equity.
- ❖ Recommendation 57: Expand Chapter 21.35A of the Kirkland Municipal Code to include response by KF&BD to repeat false of malicious fire alarms.
- ❖ Recommendation 56: Track failure rate of units to respond to incidents in their first due area by fire station and apparatus.
- ❖ Recommendation 61: Identify training competencies in writing, teach, train, test, and evaluate personnel regularly by the training division in concert with shift battalion chiefs.
- ❖ Recommendation 62: Develop a consistent program for training hazardous materials technicians.
- ❖ Recommendation 67: Refine and expand goals and purpose statements of training objectives.
- ❖ Recommendation 68: Establish a minimum number of annual training hours an individual or company is required to complete.
- ❖ Recommendation 69: Conduct at a minimum two night drills per shift per year that involve all fire suppression personnel.
- ❖ Recommendation 70: Develop lesson plans for core competencies requiring instructors to follow plans when instructing.
- ❖ Recommendation 71: Establish a minimum requirement for annual company and individual training evaluations. Include shift battalion chief involvement in annual evaluations.

- ❖ Recommendation 77: Provide Advanced Life Support services within the City of Kirkland via the King County Medic One program.
- ❖ Recommendation 78: Participate in the King County Medic One Community Medical Technician (CMT) pilot.
- ❖ Recommendation 79: Modify the EMS response protocol of sending three responders to medical incidents. Redeploy with dedicated staffing of two-person aid units, or single person quick response unit for low priority EMS incidents.
- ❖ Recommendation 90: Integrate the New World RMS (records management system) with emergency management plans, records, and reports.

#### Priority 4 – Enhances the Delivery of a Service

These recommendations improve the delivery of a particular service. For example, relocating a fire station to improve response times to a particular part of town or adding a piece of equipment that will improve the delivery of a service.

- ❖ Recommendation 3: Increase emergency operations by adding a BLS aid unit staffed between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire event.
- ❖ Recommendation 6: Add a Medical Service Administrator (MSA) at the rank of division chief to manage the medical division.
- ❖ Recommendation 8: Add one FTE administrative assistant for EMS and one FTE financial analyst to administrative support functions.
- ❖ Recommendation 19: Develop a procedure and policy for reporting and retaining all employee exposure records.
- ❖ Recommendation 21: Develop, validate, and employ a physical evaluation process that is job related.
- ❖ Recommendation 23: Produce a live monthly informational broadcast meeting between the fire chief and department personnel.
- ❖ Recommendation 24: Provide a fire service-related occupational and health program.
- ❖ Recommendation 27: Seek potential partner agencies to provide contracted emergency management services from KF&BD.
- ❖ Recommendation 28: Complete and publish the COOP and COG plans.
- ❖ Recommendation 29: Develop a Hazard Identification and Vulnerability Assessment and a Hazard Mitigation Plan. Submit to King County for inclusion as an annex to the County plan.
- ❖ Recommendation 30: Involve KF&BD and other City of Kirkland employees in community-based emergency exercises at least annually.
- ❖ Recommendation 31: Hire a full-time City emergency manager, shifting daily responsibilities from the Deputy Chief of Administration to the emergency manager.
- ❖ Recommendation 33: Conduct a fire and life-safety inspection of all inspectable occupancies in the next 12 months. If necessary use emergency services personnel to complete inspections.

- ❖ Recommendation 35: Develop and implement a self-inspection program for light risk occupancies where the occupants have demonstrated regular code compliance.
- ❖ Recommendation 36: Acquire and deploy electronic tablet devices for field data entry and rapid downloading to the records management system.
- ❖ Recommendation 38: Adopt a local residential sprinkler ordinance for new residential construction.
- ❖ Recommendation 39: Form a regional partnership to develop and deliver juvenile firesetter intervention and counseling.
- ❖ Recommendation 40: Develop, adopt, publish, and implement a KF&BD Public Education Plan.
- ❖ Recommendation 41: Form regional partnerships for the development and deployment of public fire and life safety education initiatives; also rotate operations personnel to deliver a structured curriculum.
- ❖ Recommendation 42: Rotate emergency operations personnel to a temporary duty assignment as a public educator to deliver the public education curriculum.
- ❖ Recommendation 43: Employ electronic information media from the United States Fire Administration and NFPA for linking or posting and making available on the Kirkland website.
- ❖ Recommendation 44: Create partnerships with other public agencies and private sector companies to provide public education and information to the citizens of Kirkland.
- ❖ Recommendation 46: Maintain a minimum per shift of two personnel (swing personnel) at firefighter EMT, two at lieutenant, and two at the captain rank with the qualifications and appropriate certifications to fill vacancies or step-up.
- ❖ Recommendation 47: Within the limits of the collective bargaining agreement use personnel at the captain and lieutenant rank to work down to fill vacancies.
- ❖ Recommendation 56: Track failure rate of units to respond to incidents in their first due area by fire station and apparatus.
- ❖ Recommendation 59: Create a formal mentoring program to develop for officers to use with subordinates.
- ❖ Recommendation 63: Dedicate a reserve engine to the training division, preferably a unit that can be shared by agencies.
- ❖ Recommendation 64: Develop a joint recruit academy with other members of the EMTG.
- ❖ Recommendation 65: Maintain the practice EMTG recruit training or use the practice of sending recruits to either Bates or North Bend, augmented with agency specific training.
- ❖ Recommendation 66: In the absence of a combined EMTG training manual, KF&BD should develop its own training manual, preferably in concert with the other members of the EMTG.
- ❖ Recommendation 72: Include company level training activities by subject in the RMS.
- ❖ Recommendation 73: Integrate pre-fire incident planning of community target hazards in training activities.



- ❖ Recommendation 75: Jointly construct and staff a new fire station with Northshore FD. The fire station should be located in an area to serve the Finn Hill neighborhood and Northshore FD.
- ❖ Recommendation 76: Develop a comprehensive evaluation program to assess all aspects of the EMS system.
- ❖ Recommendation 80: Expand the current partnership with the King County Sheriff's Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to marine firefighting and rescue incidents.
- ❖ Recommendation 81: Develop a capital plan for the rebuild or replacement of Fire Station No. 25 (Finn Hill South) and Fire Station No. 27 (Totem Lake).
- ❖ Recommendation 83: Define and report (Response Time Objectives Report) geographic areas where response time objectives are not being met. Include information on predictable consequences and steps to achieve compliance.
- ❖ Recommendation 84: Determine the cause of the dramatic decrease in the percent of full alarm assignment deployments. Develop a plan to reach the stated deployment goal of 90 percent.
- ❖ Recommendation 85: Adopt a two tiered response time objectives for fire, EMS, hazardous materials, technical rescue, and specialized rescue incidents.
- ❖ Recommendation 86: Risk assessment RMS should be managed by the KF&BD Fire Prevention Division.
- ❖ Recommendation 87: Develop and adopt response time intervals, benchmark, and review at a minimum annually.
- ❖ Recommendation 88: NORCOM – Establish communication center performance measurement benchmarks that meet national standards.
- ❖ Recommendation 89: Adopt turnout time standards based on incident type and time of day.

#### Priority 5 – A Good Thing To Do

These recommendations don't fit within any of the above priorities, but is still worth doing and can enhance the Department's morale or efficiency.

- ❖ Recommendation 2: Create a budget category for administrative services for the fire and for building departments.
- ❖ Recommendation 5: Annually conduct a detailed analysis of revenue versus expenditure to validate that EMS transportation activity is meeting stated goals established by the City.
- ❖ Recommendation 13: Prioritize media messaging. Use "Currently Kirkland" and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages.
- ❖ Recommendation 15: Develop a proactive message file where the subject is not time-sensitive, but timely release may position the message to its greatest advantage.
- ❖ Recommendation 16: Develop interactive content for the fire department website: citizen training videos and downloadable documents (fire escape plans, preparedness, and self-help checklists).

- ❖ Recommendation 17: Update existing content on the fire department website and schedule regular maintenance.
- ❖ Recommendation 20: Aggregate like item equipment purchases with a total value of \$5,000 or more and include in the City's annual budget.
- ❖ Recommendation 37: Develop and adopt a plan to actively solicit feedback from a representative sample of recipients of KF&BD inspection and enforcement services.
- ❖ Recommendation 48: Periodically (annually or more frequently) review minimum staffing levels and options for filling vacancies.
- ❖ Recommendation 49: Periodically review sick leave and work-related injuries for patterns and opportunities to reduce occurrences.
- ❖ Recommendation 50: Develop an internal CIP for the maintenance and replacement of KF&BD capital equipment.
- ❖ Recommendation 51: Perform an energy audit on all fire stations and follow recommended energy efficiency measures.
- ❖ Recommendation 52: Replace apparatus using a combination of age, mileage (for gas powered units), engine hours (for diesel apparatus) and condition.
- ❖ Recommendation 54: Monitor mutual and automatic aid for equity.
- ❖ Recommendation 74: Refine and expand goals and purpose of training objectives.
- ❖ Recommendation 82: Develop a long-term plan to become a CFAI accredited fire agency.



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## **Appendix B: Management Advisory Group, Recommendations and Findings**

The City of Kirkland and King County Fire District #41 conducted a Fire and Rescue Efficiency and Effectiveness Study in 2008. Prepared by MAG (Management Advisory Group, INC.), the study has 13 major findings and 12 major recommendations. ESCI reviewed and compared the findings and recommendations from 2008 with 2012 as an element of this study.<sup>89</sup> For findings and recommendations that were found to still be outstanding, ESCI has called those out for discussion by City administration and KF&BD.

### **(1.4 Major Findings)**

1. The high level of EMS responses has the unintended consequence of lowering the level of fire protection.
2. Hazardous Materials response language is vague as to the types of responses KF&BD will handle versus a regional response.
3. Rescue and extrication language is vague as to the type and level of service provided by KF&BD and subject overlaps the Marine Rescue/Firefighting standard.
4. KF&BD is totally dependent upon mutual and automatic aid response for marine rescue/firefighting.
5. Measurement of Response Time Standard is flawed and overly ambitious.
6. Standard on Effective Response significantly overlaps standard measurement of response time.

### **(1.5 Major Recommendations)**

1. Hazardous Materials risk assessment needs to be conducted.
2. Marine rescue/firefighting risk assessment needs to be conducted.
3. Standard on Effective Response needs to be rewritten to reflect efficient use of staffing levels.
4. Measurement of Response Time Standard needs to follow RCW 35.103 definitions.
5. City Attorney should review KF&BD “standards” for added liability for the city. Recommend objectives be used instead of standards.

### **(Body of Work, Findings and Recommendations)**

1. Reduce EMS response crew size from three to two (page 5-3).
2. Modify structure fire effective response criteria to reflect efficient use of staffing levels (page 5-5, 6, & 7).
3. Firefighter safety not compromised by staffing levels, but can be a reflection of a lack of safety-awareness by personnel (page 5-7, & 8).

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<sup>89</sup> Findings and recommendations are paraphrased.



4. Improve existing call-back system for greater efficiency (page 5-11).
5. Conduct commodity flow study for Kirkland or region<sup>90</sup> (page 5-12).
6. Measurement of response time “from time of 9-1-1 call” is flawed (page 5-21).
  - a. Five minute response for ALS not appropriate for Kirkland (page 5-21).
  - b. Code Yellow responses should be reconsidered as a component of emergency medical services (page 5-21).
7. Five minute response time for four firefighters is beyond KF&BD capabilities (page 5-21).
8. “Initial arriving manpower” confusing term and conflicts with target response time objectives report. Six minutes and ten minutes are used respectively (page 5-21).
9. Recommends that response time is measured at the receipt of alarm at the fire station (page 5-22).
10. Recommends that one unit, staffed with two BLS personnel responds to medical emergencies (page 5-23).
11. KF&BD failed to meet response time standard 50 percent of the time from 2004-2007 (page 5-27).

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<sup>90</sup> Has King County conducted a commodity flow study?

**Appendix C: Summary Table of Short and Mid-Term Recommendations**

- ❖ Recommendation 1: Amend job descriptions to accurately reflect roles and expectations for administration and support staff. (Implementation Order 1).....51
- ❖ Recommendation 2: Create a budget category for administrative services for the fire and for building departments. (Implementation Order 7) .....51
- ❖ Recommendation 3: Increase emergency operations by adding a BLS aid unit staffed between 8:00 AM and 8:00 PM to maintain adequate personnel for a moderate risk fire event. (Implementation Order 5) .....51
- ❖ Recommendation 4: Request WSRB to conduct an evaluation of the fire and suppression capabilities of KF&BD. (Implementation Order 8).....51
- ❖ Recommendation 5: Annually conduct a detailed analysis of revenue versus expenditure to validate that EMS transportation activity is meeting stated goals established by the City. (Implementation Order 6).....51
- ❖ Recommendation 6: Add a Medical Service Administrator (MSA) at the rank of division chief to manage the medical division. (Implementation Order 2) .....51
- ❖ Recommendation 7: Bill for EMS transport when responding and transporting patients outside of the City of Kirkland. (Implementation Order 4) .....51
- ❖ Recommendation 8: Add one FTE administrative assistant for EMS and one FTE financial analyst to administrative support functions. (Implementation Order 3).....51
- ❖ Recommendation 9: KF&BD review and validate the mission, vision, and values following completion of the 2012 strategic plan. (Implementation Order 1) .....62
- ❖ Recommendation 10: Display the adopted mission, vision, and organizational values in City Hall and fire department facilities. (Implementation Order 2).....62
- ❖ Recommendation 11: Outsource development and maintenance of Administrative Rules and Standard Operating Guidelines to a third party. Development and maintenance of Administrative Rules and Standard Operating Guidelines should include involvement of the City human resource department. (Implementation Order 1).....78
- ❖ Recommendation 12: Develop a succession plan to ensure employees are recruited and developed to fill each key role within the organization. (Implementation Order 11).....79
- ❖ Recommendation 13: Prioritize media messaging. Use “Currently Kirkland” and other media outlets as a tool to leverage the reach and impact of fire department public information and education messages. (Implementation Order 2) .....79
- ❖ Recommendation 14: Anticipate controversies or events which may generate media or community interest and develop a media or messaging plan in advance. (Implementation Order 7).....79
- ❖ Recommendation 15: Develop a proactive message file where the subject is not time-sensitive, but timely release may position the message to its greatest advantage. (Implementation Order 12) .....79
- ❖ Recommendation 16: Develop interactive content for the fire department website: citizen training videos and downloadable documents (fire escape plans, preparedness, and self-help checklists). (Implementation Order 9) .....79
- ❖ Recommendation 17: Update existing content on the fire department website and schedule regular maintenance. (Implementation Order 8).....79
- ❖ Recommendation 18: Administer a stress test at the time of hire and periodically on incumbent employees/members based on age and risk factors. (Implementation Order 5) 79
- ❖ Recommendation 19: Develop a procedure and policy for reporting and retaining all employee exposure records. (Implementation Order 4).....79
- ❖ Recommendation 20: Aggregate like item equipment purchases with a total value of \$5,000 or more and include in the City’s annual budget. (Implementation Order 12) .....79

- ❖ Recommendation 21: Develop, validate, and employ a physical evaluation process that is job related. (Implementation Order 6).....79
- ❖ Recommendation 22: Establish a medical baseline for new firefighters at the time of hire/appointment. (Implementation Order 2) .....79
- ❖ Recommendation 23: Produce a live monthly informational broadcast meeting between the fire chief and department personnel. (Implementation Order 10) .....79
- ❖ Recommendation 24: Provide a fire service-related occupational and health program. (Implementation Order 3) .....79
- ❖ Recommendation 25: Develop and implement a plan outlining how volunteers will be used and managed during emergency events. (Implementation Order 5) .....88
- ❖ Recommendation 26: Identify a location and develop a dedicated EOC; apply for a matching grant from the Washington EMD Emergency Operations Center Grant Program (requires a 25 percent local match). (Implementation Order 4).....88
- ❖ Recommendation 27: Seek potential partner agencies to provide contracted emergency management services from KF&BD. (Implementation Order 7).....88
- ❖ Recommendation 28: Complete and publish the COOP and COG plans. (Implementation Order 2).....88
- ❖ Recommendation 29: Develop a Hazard Identification and Vulnerability Assessment and a Hazard Mitigation Plan. Submit to King County for inclusion as an annex to the County plan. (Implementation Order 3) .....88
- ❖ Recommendation 30: Involve KF&BD and other City of Kirkland employees in community-based emergency exercises at least annually. (Implementation Order 6)....88
- ❖ Recommendation 31: Hire a full-time City emergency manager, shifting daily responsibilities from the Deputy Chief of Administration to the emergency manager. (Implementation Order 1) .....88
- ❖ Recommendation 32: Integrate KF&BD fire prevention records management with the EnerGov RMS software used by the Building Division. (Implementation Order 3) .....96
- ❖ Recommendation 33: Conduct a fire and life-safety inspection of all inspectable occupancies in the next 12 months. If necessary use emergency services personnel to complete inspections. (Implementation Order 1).....96
- ❖ Recommendation 34: Develop and adopt a plan for the maintenance, repair, and flow testing of all fire hydrants in the City of Kirkland. (Implementation Order 2) .....96
- ❖ Recommendation 35: Develop and implement a self-inspection program for light risk occupancies where the occupants have demonstrated regular code compliance. (Implementation Order 13) .....96
- ❖ Recommendation 36: Acquire and deploy electronic tablet devices for field data entry and rapid downloading to the records management system. (Implementation Order 4).96
- ❖ Recommendation 37: Develop and adopt a plan to actively solicit feedback from a representative sample of recipients of KF&BD inspection and enforcement services. (Implementation Order 10) .....96
- ❖ Recommendation 38: Adopt a local residential sprinkler ordinance for new residential construction. (Implementation Order 5).....96
- ❖ Recommendation 39: Form a regional partnership to develop and deliver juvenile firesetter intervention and counseling. (Implementation Order 12) .....96
- ❖ Recommendation 40: Develop, adopt, publish, and implement a KF&BD Public Education Plan. (Implementation Order 6).....96
- ❖ Recommendation 41: Form regional partnerships for the development and deployment of public fire and life safety education initiatives; also rotate operations personnel to deliver a structured curriculum. (Implementation Order 7) .....96

- ❖ Recommendation 42: Rotate emergency operations personnel to a temporary duty assignment as a public educator to deliver the public education curriculum. (Implementation Order 11) .....97
- ❖ Recommendation 43: Employ electronic information media from the United States Fire Administration and NFPA for linking or posting and making available on the Kirkland website. (Implementation Order 9) .....97
- ❖ Recommendation 44: Create partnerships with other public agencies and private sector companies to provide public education and information to the citizens of Kirkland. (Implementation Order 8) .....97
- ❖ Recommendation 45: Update KF&BD Department Manual Directive Number 3.001 to accurately reflect current daily minimum staffing level. (Implementation Order 22).....208
- ❖ Recommendation 46: Maintain a minimum per shift of two personnel (swing personnel) at firefighter EMT, two at lieutenant, and two at the captain rank with the qualifications and appropriate certifications to fill vacancies or step-up. (Implementation Order 24) .208
- ❖ Recommendation 47: Within the limits of the collective bargaining agreement use personnel at the captain and lieutenant rank to work down to fill vacancies. (Implementation Order 30) .....208
- ❖ Recommendation 48: Periodically (annually or more frequently) review minimum staffing levels and options for filling vacancies. (Implementation Order 25) .....208
- ❖ Recommendation 49: Periodically review sick leave and work-related injuries for patterns and opportunities to reduce occurrences. (Implementation Order 26) .....208
- ❖ Recommendation 50: Develop an internal CIP for the maintenance and replacement of KF&BD capital equipment. (Implementation Order 27) .....208
- ❖ Recommendation 51: Perform an energy audit on all fire stations and follow recommended energy efficiency measures. (Implementation Order 35) .....208
- ❖ Recommendation 52: Replace apparatus using a combination of age, mileage (for gas powered units), engine hours (for diesel apparatus) and condition. (Implementation Order 34) .....208
  - If an apparatus meets age and mileage or engine hour thresholds, use the condition as the determining factor when considering replacement.....208
  - Condition factors such as maintenance records and cumulative maintenance costs should help determine if a unit is actually ready to be replaced.....208
  - If a unit has not met the age and mileage or engine hour thresholds but the condition factors are alarmingly high, consider early replacement. ....208
- ❖ Recommendation 53: Store PPE in a separate, well ventilated room. (Implementation Order 6) .....208
- ❖ Recommendation 54: Monitor mutual and automatic aid for equity. (Implementation Order 28) .....209
- ❖ Recommendation 55: Make upgrades to incident reporting RMS software to eliminate erroneous data entries. (Implementation Order 9) .....209
- ❖ Recommendation 56: Track failure rate of units to respond to incidents in their first due area by fire station and apparatus.....209
- ❖ Recommendation 57: Expand Chapter 21.35A of the Kirkland Municipal Code to include response by KF&BD to repeat false or malicious fire alarms. (Implementation Order 21) 209
- ❖ Recommendation 58: ICS training is currently at the federal minimum. Department minimum should be IS-100, IS-200, & IS-700 and IS-800b for all response personnel, and IS-300 & IS-400 for all chief officers. (Implementation Order 23).....209
- ❖ Recommendation 59: Create a formal mentoring program to develop for officers to use with subordinates. (Implementation Order 31) .....209

- ❖ Recommendation 60: Formalize the East Metro Training Group via an interlocal agreement between participating agencies, with Kirkland Fire & Building Department as a permanent member. (Implementation Order 7).....209
- ❖ Recommendation 61: Identify training competencies in writing, teach, train, test, and evaluate personnel regularly by the training division in concert with shift battalion chiefs. (Implementation Order 8) .....209
- ❖ Recommendation 62: Develop a consistent program for training hazardous materials technicians. (Implementation Order 32) .....209
- ❖ Recommendation 63: Dedicate a reserve engine to the training division, preferably a unit that can be shared by agencies. (Implementation Order 22) .....209
- ❖ Recommendation 64: Develop a joint recruit academy with other members of the EMTC. (Implementation Order 29) .....209
- ❖ Recommendation 65: Maintain the practice EMTC recruit training or use the practice of sending recruits to either Bates or North Bend, augmented with agency specific training. (Implementation Order 10) .....209
- ❖ Recommendation 66: In the absence of a combined EMTG training manual, KF&BD should develop its own training manual, preferably in concert with the other members of the EMTG. (Implementation Order 20).....209
- ❖ Recommendation 67: Refine and expand goals and purpose statements of training objectives. (Implementation Order 11) .....209
- ❖ Recommendation 68: Establish a minimum number of annual training hours an individual or company is required to complete. (Implementation Order 19) .....209
- ❖ Recommendation 69: Conduct at a minimum two night drills per shift per year that involve all fire suppression personnel. (Implementation Order 18) .....209
- ❖ Recommendation 70: Develop lesson plans for core competencies requiring instructors to follow plans when instructing. (Implementation Order 14) .....209
- ❖ Recommendation 71: Establish a minimum requirement for annual company and individual training evaluations. Include shift battalion chief involvement in annual evaluations. (Implementation Order 5) .....209
- ❖ Recommendation 72: Include company level training activities by subject in the RMS. (Implementation Order 16) .....210
- ❖ Recommendation 73: Integrate pre-fire incident planning of community target hazards in training activities. (Implementation Order 17) .....210
- ❖ Recommendation 74: Refine and expand goals and purpose of training objectives. (Implementation Order 13) .....210
- ❖ Recommendation 75: Jointly construct and staff a new fire station with Northshore FD. The fire station should be located in an area to serve the Finn Hill neighborhood and Northshore FD. (Implementation Order 3) .....210
- ❖ Recommendation 76: Develop a comprehensive evaluation program to assess all aspects of the EMS system. (Implementation Order 12).....210
- ❖ Recommendation 77: Provide Advanced Life Support services within the City of Kirkland via the King County Medic One program. (Implementation Order 1) .....210
- ❖ Recommendation 78: Participate in the King County Medic One Community Medical Technician (CMT) pilot. (Implementation Order 2) .....210
- ❖ Recommendation 79: Modify the EMS response protocol of sending three responders to medical incidents. Redeploy with dedicated staffing of two-person aid units, or single person quick response unit for low priority EMS incidents. (Implementation Order 3)..210
- ❖ Recommendation 80: Expand the current partnership with the King County Sheriff's Marine Unit and the Seattle Fire Department to provide a joint, coordinated response to marine firefighting and rescue incidents. (Implementation Order 4).....210



- ❖ Recommendation 81: Develop a capital plan for the rebuild or replacement of Fire Station No. 25 (Finn Hill South) and Fire Station No. 27 (Totem Lake). (Implementation Order 33).....210
- ❖ Recommendation 82: Develop a long-term plan to become a CFAI accredited fire agency. (Implementation Order 9) .....227
- ❖ Recommendation 83: Define and report (Response Time Objectives Report) geographic areas where response time objectives are not being met. Include information on predictable consequences and steps to achieve compliance. (Implementation Order 7) 227
- ❖ Recommendation 84: Determine the cause of the dramatic decrease in the percent of full alarm assignment deployments. Develop a plan to reach the stated deployment goal of 90 percent. (Implementation Order 6) .....227
- ❖ Recommendation 85: Adopt a two tiered response time objectives for fire, EMS, hazardous materials, technical rescue, and specialized rescue incidents. (Implementation Order 3) .....227
- ❖ Recommendation 86: Risk assessment RMS should be managed by the KF&BD Fire Prevention Division. (Implementation Order 8) .....227
- ❖ Recommendation 87: Develop and adopt response time intervals, benchmark, and review at a minimum annually. Response time benchmarks should be monitored and analyzed to determine factors causing trends including increased service demand, concurrent alarms, and staffing levels. (Implementation Order 2).....227
- ❖ Recommendation 88: NORCOM – Establish communication center performance measurement benchmarks that meet national standards. (Implementation Order 5) ...227
- ❖ Recommendation 89: Adopt turnout time standards based on incident type and time of day. (Implementation Order 1) .....227
- ❖ Recommendation 90: Integrate the New World RMS (records management system) with emergency management plans, records, and reports. (Implementation Order 4).....227

**Appendix D: Summary of Recent RFA (Regional Fire Authority) Legislation**

SB 6470 allows cities to assess a benefit charge if it annexed part or all of a fire district from 2006 forward. Until this bill was passed, a city could not assess a benefit charge unless it was as part of an RFA. A benefit charge can be levied up to 60 percent of the operating budget of a fire agency. That is not 60 percent of its taxing authority, but 60 percent of its operating budget (excluding capital).

**SB 6470-S.E – Digest (Digest as Enacted)**

Authorizes certain cities and towns to fix and impose a benefit charge, for enhancement of fire protection services, on personal property and improvements to real property.

HB 1854 allows an RFA to annex another fire jurisdiction. I didn't know much about this one, but reading the bill through, it appears to allow an RFA to annex other agencies without going through another RFA formation process (establish a plan, public hearings, etc.).

**HB 1854-S – Digest (Digest as Enacted)**

Establishes a process through which a fire protection jurisdiction may be annexed by a fire service protection authority. Authorizes the transfer of certain fire protection and emergency services from annexed fire protection jurisdictions to annexing regional authorities. Reduces the property tax levy authority of a fire protection district, city, town, Indian tribe, or port district that is annexed into a RFA (regional fire protection service authority).

HB 1731 allows an RFA to establish RFA commissioners (as opposed to using the commissioners and council members from the previously separate agencies) or a combination of the two. It has to be addressed in the RFA Plan. Also authorizes the RFA to establish RFA commissioner districts, roughly equal in population.

**HB 1731-S.E – Digest (Digest as Enacted)**

Addresses the formation, operation, and governance of regional fire protection service authorities.



## **Appendix E: History and Formation of the Kirkland Fire Department**

(The formation and chronological history of the Kirkland Fire Department was drafted from information graciously provided to ESCI by KF&BD Captain Bill Hoover. ESCI thanks Captain Hoover for his valuable assistance.)

### **Humble Beginnings**

On June 6, 1889 at approximately 2:30 p.m., a worker in a cabinet shop in Seattle was heating glue over a gasoline fire when the glue boiled over and ignited. The fire spread to the wood chips and turpentine covering the floor. The resulting fire was visible from Kirkland. Alarmed at the sudden realization they were at risk, business owners in Kirkland purchased fire buckets and organized a fire brigade. This confederation of businesses established an agreed upon method of fighting fires in 1890, and the first organized firefighting effort in Kirkland was born.

In 1909, the City of Kirkland spent \$95 to purchase a hand pulled firefighting hose cart. A siren was also purchased and installed on the bank building, which was set off by the telephone operator to notify fire brigade members of a fire. A “fire shed” was located next to a livery stable and the first brigade member to arrive would attach a horse to the hose cart.

In 1916, the Kirkland Hotel caught fire. Armed with only the hose cart, the brigade members fought valiantly, but the large wooden structure was quickly consumed. They did manage to prevent the fire from spreading to adjacent buildings.

### **Kirkland Fire Department's Official Formation**

On June 21, 1923, Kirkland's first official volunteer fire department was formed. Dr. R.R. Ruffin was named Kirkland's first fire chief. At the urging of the insurance officials at the Washington Surveying and Rating Bureau, Chief Ruffin had fire hydrants installed to improve the insurance rates for the community. That same year, a garage fire occurred at McIntyre Buick. A previously damaged vehicle parked in the garage caught fire. Kirkland firefighters responded and had the fire out in 15 minutes, limiting the damage to \$3,000.

Sometime thereafter, Seattle sold a converted 1924 Packard truck to the Kirkland Fire Department, which became Kirkland's first motorized “fire engine.” It held two 60-gallon chemical tanks, 100 feet of attack hose, 500 feet of hydrant hose, and ladders. It was not until 1929, however, that Kirkland obtained its first commercially designed and built fire engine, a 1929 GMC pumper. The unit is still owned by Kirkland as an antique pumper and is housed at Fire Station No. 22 in Houghton.

### *Kirkland Neighbors Form, then Join*

On September 2, 1949, residents north of the city voted 235 in favor and 54 against the formation of King County Fire District #41. Kirkland Fire Chief Leonard Paulson supported the formation since Kirkland Fire Department was routinely responding out of the City, but there was no funding to support such activities. Bob Gollofon was selected to be the new districts' first fire chief. The districts' first fire engine was acquired shortly thereafter from an eastern Washington fire department and housed in a garage loaned to the district. Located at 13000 84 Ave NE, the building still stands at that location today.

South of the City of Kirkland, the town of Houghton appointed Harold Mehrer fire chief in 1962. In 1968, Houghton tried but failed to annex Kirkland. The following year, Kirkland annexed Houghton and Chief Mehrer stepped down. Also in 1969, Chief Paulson was replaced by Bob Ely, the first paid employee and first paid fire chief of the Kirkland Fire Department. A year later, King County Fire District #41 contracted for fire protection from the City of Kirkland. In 1970, all three fire agencies were operating as one department, referred to as the "Greater Kirkland Fire Department".

### *Kirkland Fire Department Today*

On May 1, 2009, Kevin Nalder was appointed Director of the Kirkland Fire and Building Department. On June 1, 2011, the remainder of King County Fire District #41 and portions of King County Fire District #34 (Redmond) and King County Fire District #36 (Woodinville) were annexed into the city. These annexations were collectively referred to as the Finn Hill – Juanita – Kingsgate annexation. Over 30,000 new residents were added to the city population in that annexation, bringing the population of the service area to approximately 80,505 citizens spread over almost 18 square miles. The department employs 101.5 firefighters, administrators and support staff.

The department serves its residents from five active fire stations and one station staffed at night with volunteers for medical responses only. The stations have a total of 19 firefighters on duty minimum, operating and cross-staffing five fire engines, six medical aid units and one ladder truck. The department handled 7,380 responses in the last full year of data collection ending August, 2011.

### **Appendix F: Comparable Providers**

In order to illustrate a relative comparison of deployment assets, ESCI surveyed five other Washington emergency service providers: Bellingham, Everett, Redmond, and Yakima fire departments, and Kent Fire Department RFA (Regional Fire Authority). Each of the surveyed agencies provides services to communities of similar size and demographics as those served by KF&BD. The following figures provide a comparison of the number of fire stations, engines, and ladder (aerial) trucks (per 1,000 population) provided by each fire agency (In this and other similar benchmarks, Kirkland is compared with other cities serving between 50,000 and 99,999 residents).

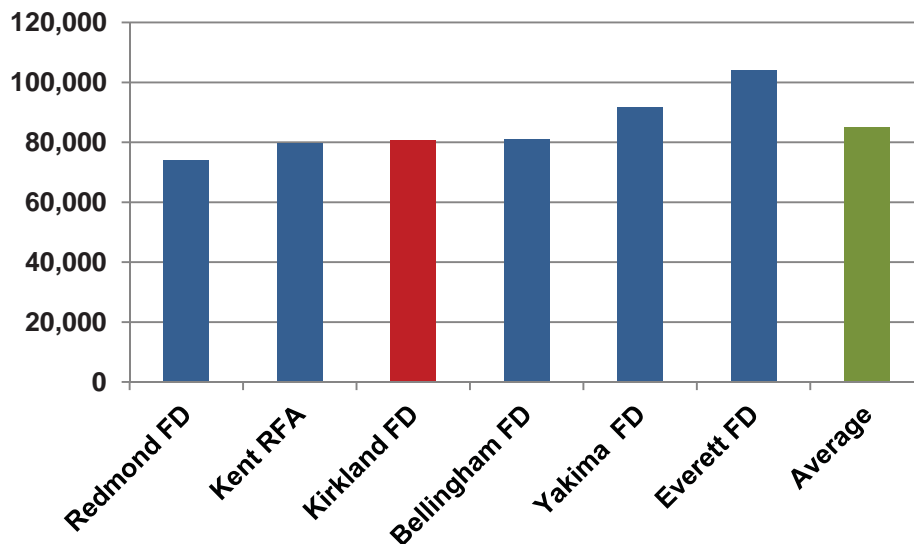
A word of caution is appropriate: each comparable by itself is only informative and should be viewed individually as an interesting fact. The collected data begins to tell the story of how KF&BD compares with other fire and EMS providers in the area.

We begin the comparison with basic statistical information about each fire agency.

#### **Population Served**

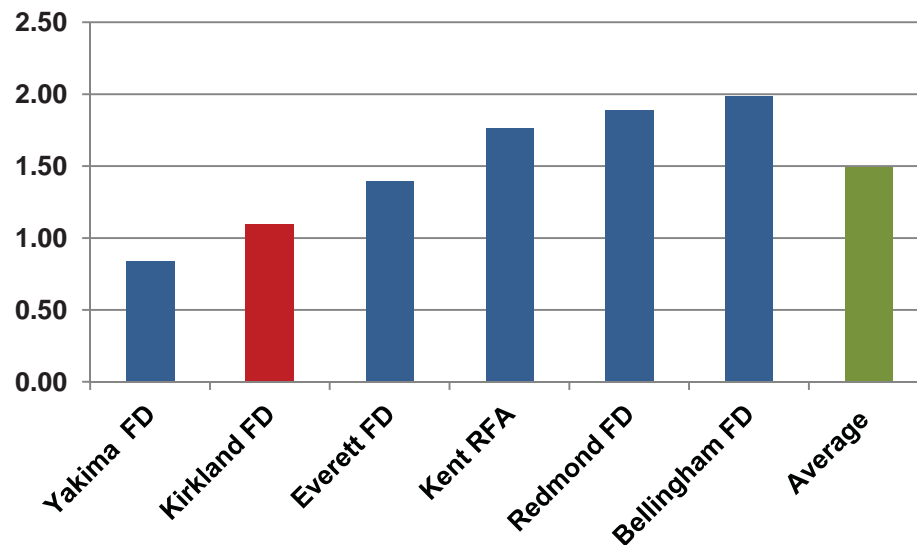
The following figure is a side-by-side comparison of the population served by each fire department in the survey. The population served by KF&BD is approximately 80,505. The average population served by the six comparable fire departments is 85,146.

**Figure 111: Population Served by Agency**



Staffing

Figure 112 compares the number of emergency operation (firefighters and EMS) personnel serving each of the communities per 1,000 population. This comparison is considered to be an interesting statistic but it is important to remember that the services provided by each fire department are variable.

**Figure 112: Firefighters per 1,000 Population**

There are 1.09 suppression and EMS personnel per 1,000 for the population served by KF&BD, 73.2 percent of the average comparable communities for fire departments serving similar populations.

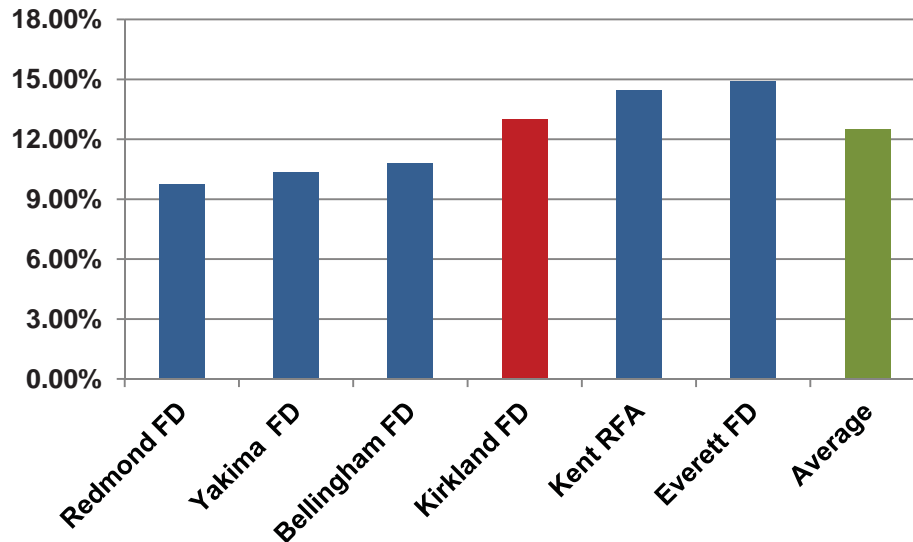
The following figure compares the total number of personnel, administrative, support, and prevention staff, operational personnel, and minimum on-duty staffing by six fire departments.

**Figure 113: Breakdown of Personnel and Minimum Staffing Levels**

Division	Everett FD	Bellingham FD	Kent RFA	Yakima FD	Redmond FD	Kirkland FD
Career Personnel	188.0	148.0	206.0	87.0	159.0	103.5
Administrative, Support, and Prevention	28.0	16.0	29.7	9.0	15.5	13.5
Career Suppression	160.0	132.0	140.0	78.0	144.0	90.0
Minimum On-duty	33.0	28.0	30.0	19.0	24.0	19.0

The following figure compares the percent of administrative and support personnel to the total number of personnel on each department.

**Figure 114: Percentage of Administrative and Support Personnel to Department Total**



KF&BD has 13.5 FTE administrative and support positions, equaling 13.04 percent, as compared to the total number of employees in the Department. The ratio is slightly higher than found in Kent and Everett, and 2.25 percent above the average for all agencies.

### Services Provided

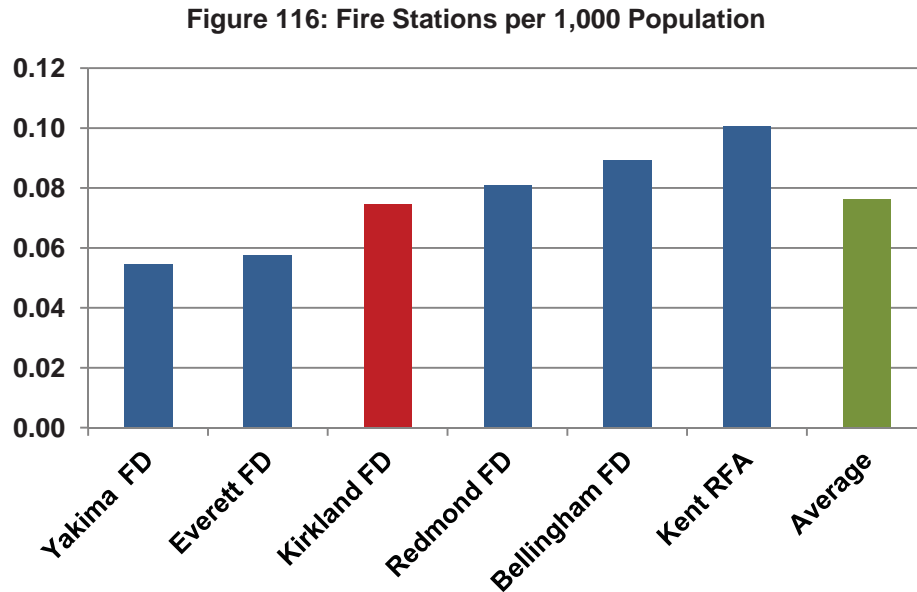
The table below lists the type and level of service provided by each of the departments.

**Figure 115: Services and Level Provided by Agency**

Service	Redmond FD	Yakima FD	Kent RFA	Bellingham FD	Everett FD	Kirkland FD
Fire Suppression	Yes	Yes	Yes	Yes	Yes	Yes
Hazardous Material	Yes	Yes	Yes	Yes	Yes	Yes
EMS	Yes	Yes	Yes	Yes	Yes	Yes
EMS BLS	Yes	Yes	Yes	Yes	Yes	Yes
EMS ALS	Yes	No	No	Yes	Yes	No
EMS Transport	Yes	No	No	Yes	Yes	Yes
Fire Prevention	Yes	Yes	Yes	Yes	Yes	Yes
Public Education	Yes	Yes	Yes	Yes	Yes	Yes
Emergency Management	No	Yes	No	No	Yes	Yes
Technical Rescue	No	Yes	Yes	Yes	Yes	Yes
USAR Team Membership	Yes	Yes	Yes	No	No	No

### Resource Comparison

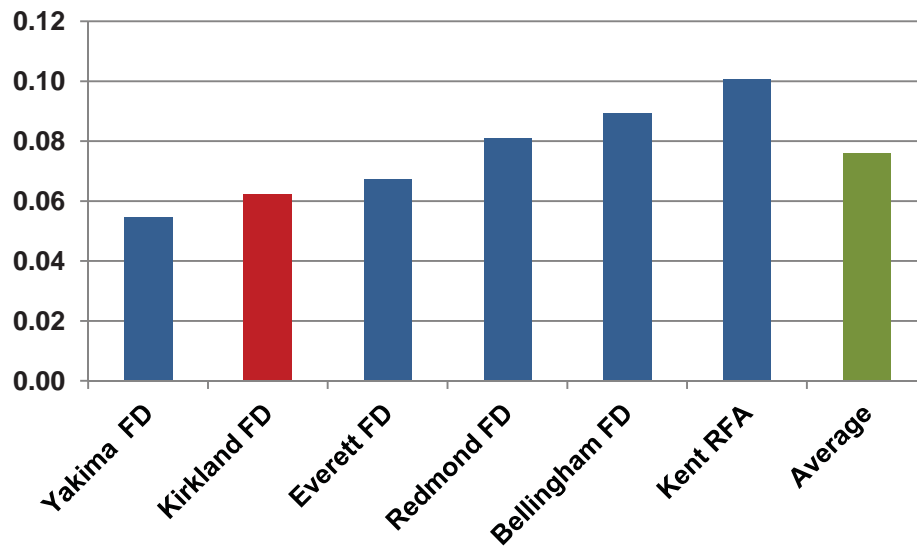
The following figures compare the number of fire stations, engines, and ladder (aerial) trucks (per 1,000 population) provided by each fire agency.



Kirkland FD maintains slightly fewer fire stations per 1,000 residents (97.7 percent) than the average of comparable regional communities and 85.7 percent of the national median<sup>91</sup> for fire departments serving similar populations.

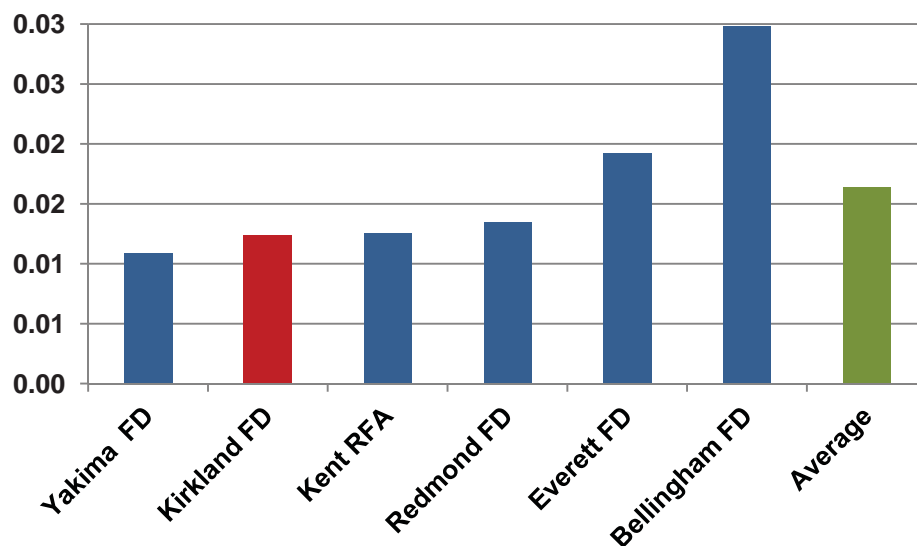
Figure 117 compares the number and average fire engines (pumpers) per 1,000 population for the six fire departments.

<sup>91</sup> NFPA U.S Fire Department Profile, Fire Analysis and Research Division, 2010.

**Figure 117: Fire Engines per 1,000 Population**

There are 0.62 pumpers per 1,000 for the population served by KF&BD, 81.9 percent of the average regional comparison communities and 71.4 percent of the national median of 0.87 per 1,000 for fire departments serving similar populations.

ESCI next compared the number and average ladder trucks (aerials) per 1,000 population for the six fire departments.

**Figure 118: Ladder Trucks per 1,000 Population**

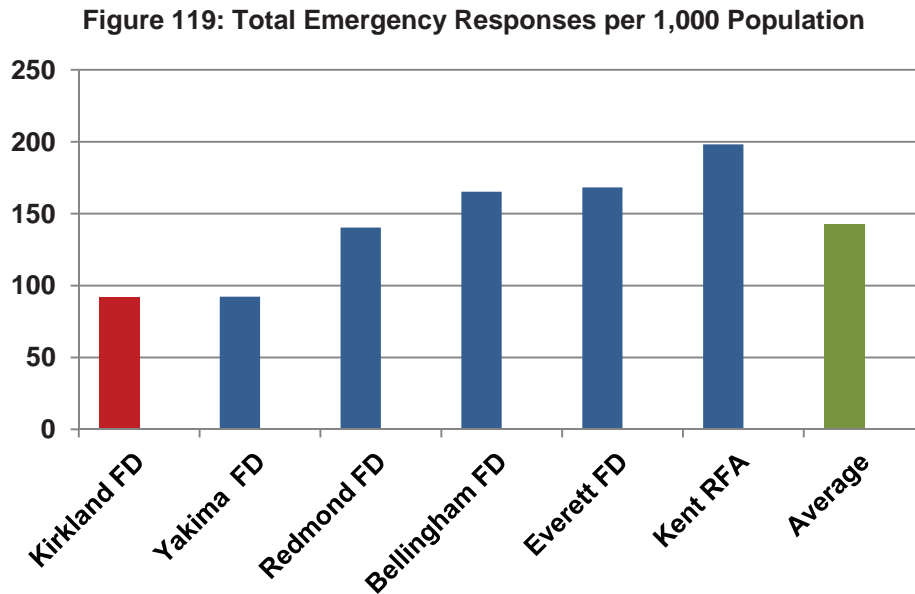
There are 0.012 ladder trucks per 1,000 for the population served by KF&BD, 75.7 percent of the average regional comparison communities, and 50.0 percent of the national median for fire



departments serving similar populations. The national median for fire departments serving between 50,000 and 99,999 populations is 0.030 per 1,000 (two ladder trucks).

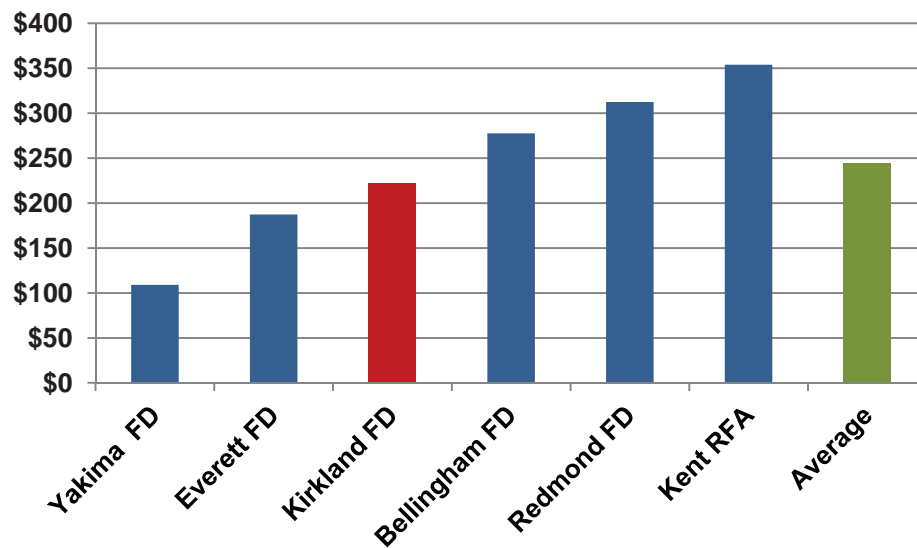
### Emergency Response Activity

The following chart compares the total emergency responses per 1,000 population in 2011. This illustration gives the reader a sense of the relative number of responses between the area emergency response agencies.



As Figure 119 shows, requests for service occur at a lesser rate per 1,000 population in Kirkland than in the comparable communities. Factors that will affect the incident rate include the fact that the fire departments provide differing levels of service and differences in the service area demographics for each community. Record keeping practices may also affect the comparison.

In Figure 120, costs of fire protection based on the 2012 operating budget and are compared on a per-capita basis:

**Figure 120: Cost per Capita**

The cost per capita of fire and emergency services in Kirkland was \$222 in 2011, slightly less than the average of \$244 for the six fire departments.

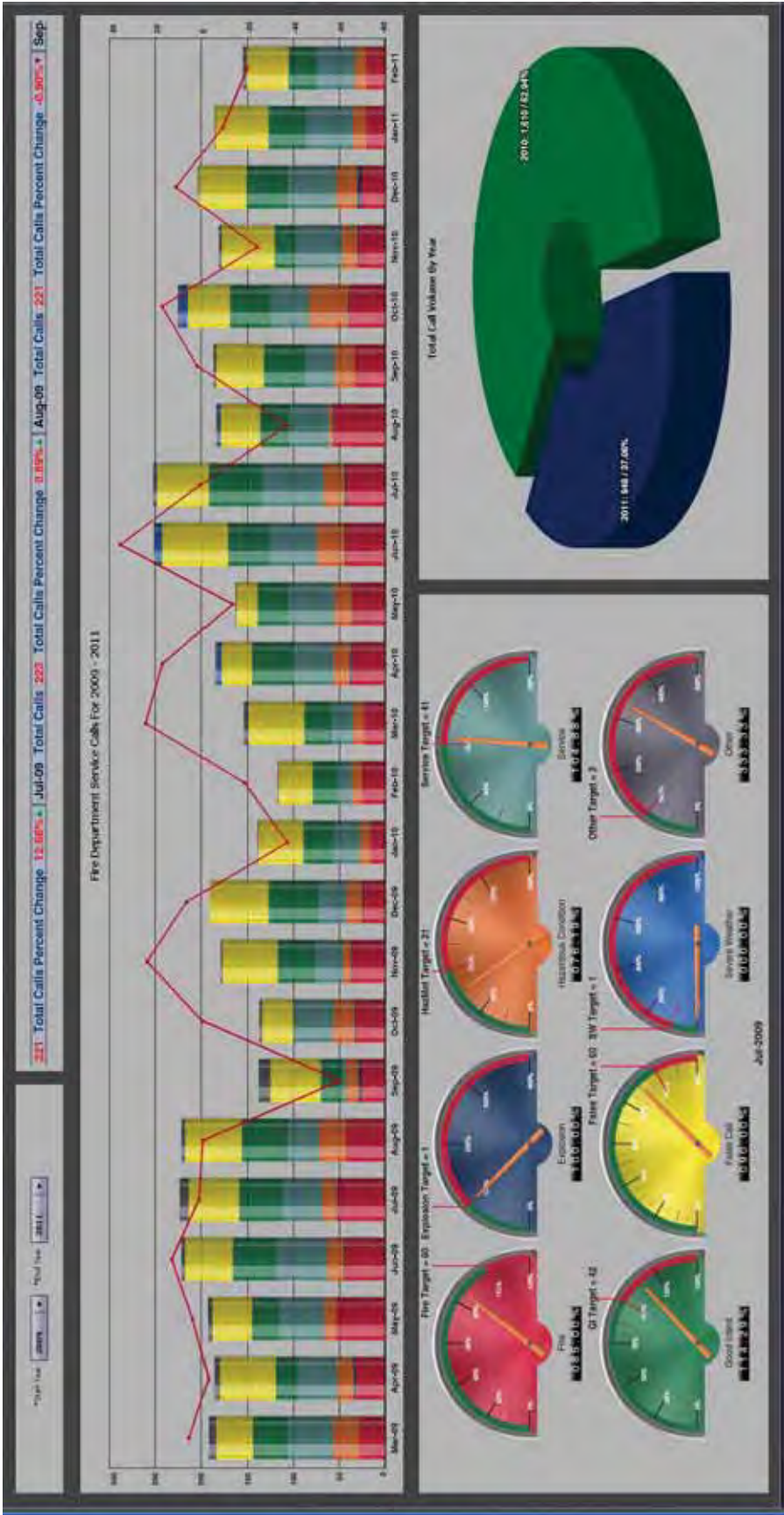
**Appendix G: Summary Table of Stakeholder Interviews**

Person	Date	Affiliation or Group
<b>1. Internal</b>		
1. Bob Sternoff	January 3, 2012	City of Kirkland City Councilor
2. Penny Sweet	January 3, 2012	City of Kirkland Deputy Mayor
3. Toby Nixon	January 3, 2012	City of Kirkland City Councilor
4. Kurt Triplett	January 3, 2012	City of Kirkland City Manager
5. Amy Walen	January 3, 2012	City of Kirkland City Councilor
6. E-Board	January 4, 2012	IAFF Executive Board
7. Joan McBride	January 4, 2012	City of Kirkland City Councilor
8. Doreen Marchione	January 4, 2012	City of Kirkland City Councilor
9. Dave Asher	January 4, 2012	City of Kirkland City Councilor
10. Tom Phillips	January 4, 2012	Kirkland Fire & Building Department Building and Construction Official
11. Tom Jensen	January 4, 2012	Kirkland Fire & Building Department Building and Construction Official
12. Mark Jung	January 5, 2012	Kirkland Fire & Building Department EMS Officer
13. C-Shift crew members	January 5, 2012	Kirkland Fire & Building Department C-Shift
14. Tracey Dunlap	January 19, 2012	City of Kirkland, Director of Finance and Administration
15. James Lopez	January 19, 2012	City of Kirkland, Director of Human Resources & Performance Management
16. Bill Hoover	January 20, 2012	Kirkland Fire & Building Department Captain
17. A-Shift crew members	January 3, 2012	Kirkland Fire & Building Department A-Shift, Station 26
18. Dave Walker	January 3, 2012	Kirkland Fire & Building Department Assistant Fire Marshal
19. Jim Crowe	January 3, 2012	Kirkland Fire & Building Department Deputy Fire Marshal
20. Paul Stewart	January 3, 2012	Kirkland Fire & Building Department Deputy Planning Director
21. Desirre Goble	January 3, 2012	Kirkland Fire & Building Department Planner
22. Teri Wallace	January 4, 2012	Kirkland Fire & Building Department Administrative Staff
23. Audrey Martin	January 4, 2012	Kirkland Fire & Building Department Administrative Staff
24. Katharine Durish	January 4, 2012	Kirkland Fire & Building Department Administrative Staff
25. Helen Ahrens-Byington	January 4, 2012	Kirkland Fire & Building Department Deputy Fire Chief
26. Battalion Chiefs	January 5, 2012	Kirkland Fire & Building Department

Person	Date	Affiliation or Group
27. B-Shift crew members	January 4, 2012	Kirkland Fire & Building Department B-Shift
28. Marie Stake	January 5, 2012	Kirkland Fire & Building Department Communications Specialist
<b>2. External</b>		
1. Kevin Donnelly	January 5, 2012	Redmond Fire Department Fire Chief
2. Michael Eisner	January 5, 2012	Bellevue Fire Department Fire Chief
3. Mark Risen	January 5, 2012	Bellevue Fire Department Deputy Chief
4. Chris Tubbs	January 4, 2012	Mercer Island Fire Department Fire Chief
5. Jim Torpin	January 5, 2012	Northshore Fire Department Fire Chief
6. Metro Fire Training Group	January 5, 2012	East Metro Training Group
7. Kim Bullen	January 3, 2012	King County County Administrator
8. Bob Van Horne	January 5, 2012	Bothell Fire Department Fire Chief

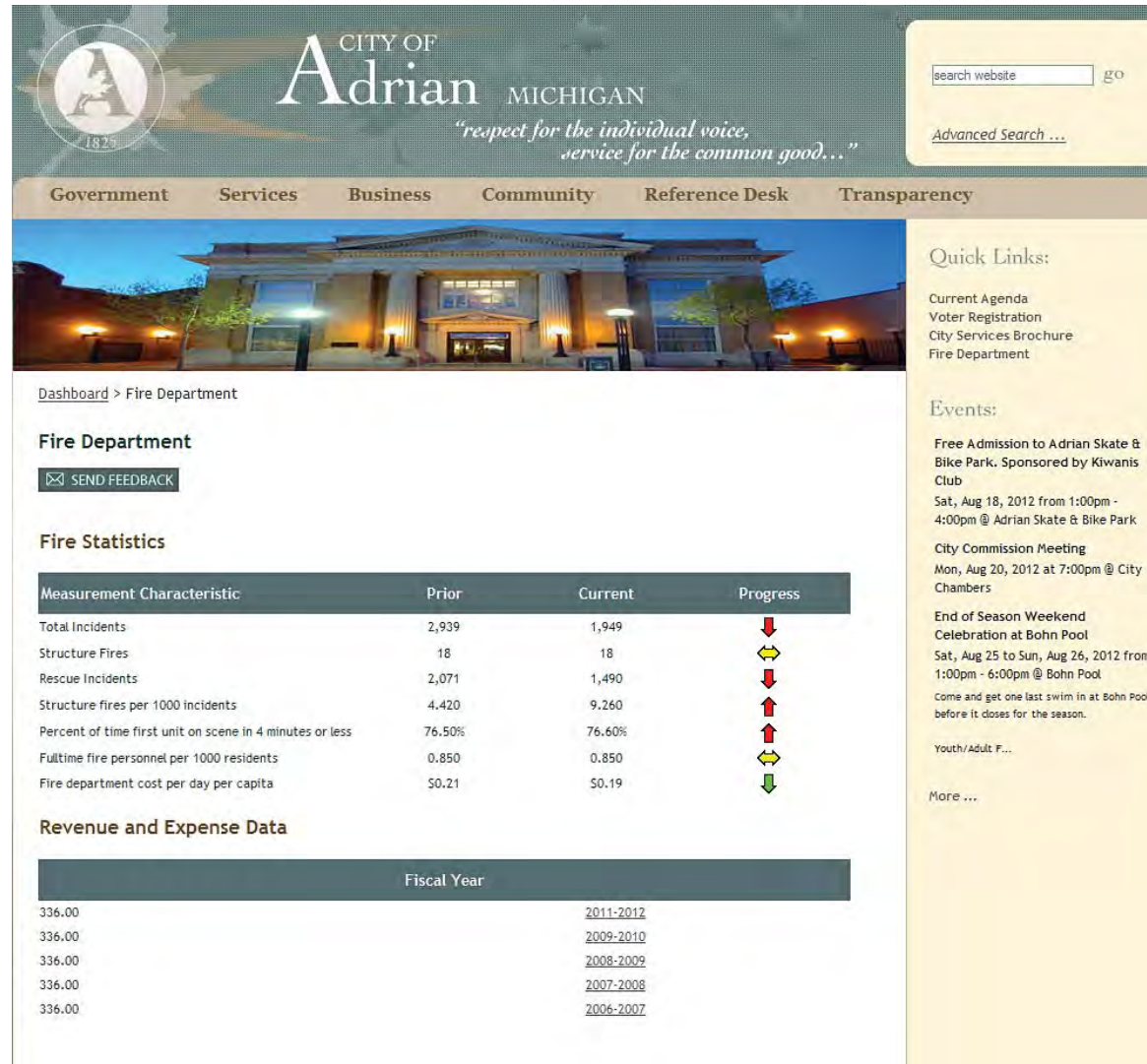
Appendix H: Dashboard View Examples

Figure 121: Internal Customer Dashboard View<sup>92</sup>

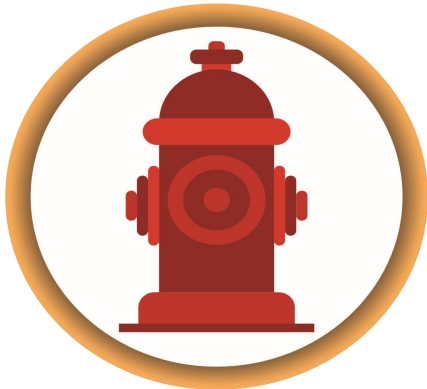


<sup>92</sup> Detroit, Michigan, Fire Department EOC Dashboard Angel's Night Operation, view of fire incidents, FireView™ retrieved August 17, 2012 <http://info.theomegagroup.com/blog/bid/134307/FireView-Dashboard-s-Sudden-Impact-on-Detroit-Fire-Department>.



Figure 122: External Customer Dashboard View<sup>93</sup><sup>93</sup> City website, City of Adrian, Michigan, retrieved August 17, 2012.

## *Protection Class Report For:* **Kirkland**



**Effective Date:**

**August 1, 2018**





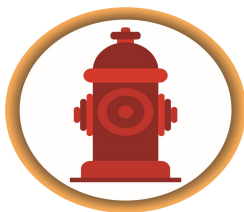
Washington Surveying and Rating Bureau (WSRB) is an independent, non-profit public service organization that has been serving the State of Washington since 1911.

As an information-gathering and publishing organization, WSRB is an authoritative resource for the insurance industry.

***Our mission is to provide our customers with trusted information and services that enhance their decision-making and success.***

One the services WSRB provides for the insurance industry is determining the Protection Class Grading of communities and the Protection Class Ratings of the individual properties in those communities. It is these Protection Class Ratings that are used by insurance companies to help determine fire insurance premiums for properties. Before the Protection Class Rating for a property can be determined, the Protection Class Grading for the community the property is located in must be determined.

WSRB determines the Protection Class Grading of cities and fire protection districts by evaluating their fire protection/suppression capabilities using a schedule approved by the Washington State Office of the Insurance Commissioner. WSRB evaluates communities in four major areas: Water Supply, Fire Department, Emergency Communications and Fire Safety Control. As a result of this evaluation the community is assigned a Protection Class Grading of 1 through 10, where 1 indicates exemplary fire protection capabilities, and 10 indicates the capabilities, if any, are insufficient for insurance rating credit.



#### **Water Supply**

WSRB evaluates the capacity, distribution and maintenance of water systems and fire hydrants.



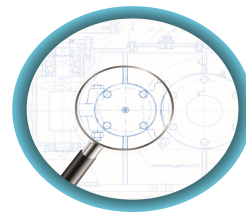
#### **Fire Department**

WSRB evaluates the fire department, including fire stations, apparatus, equipment, personnel and their training.



#### **Emergency Communications**

WSRB evaluates the emergency communication system used to dispatch the fire department.



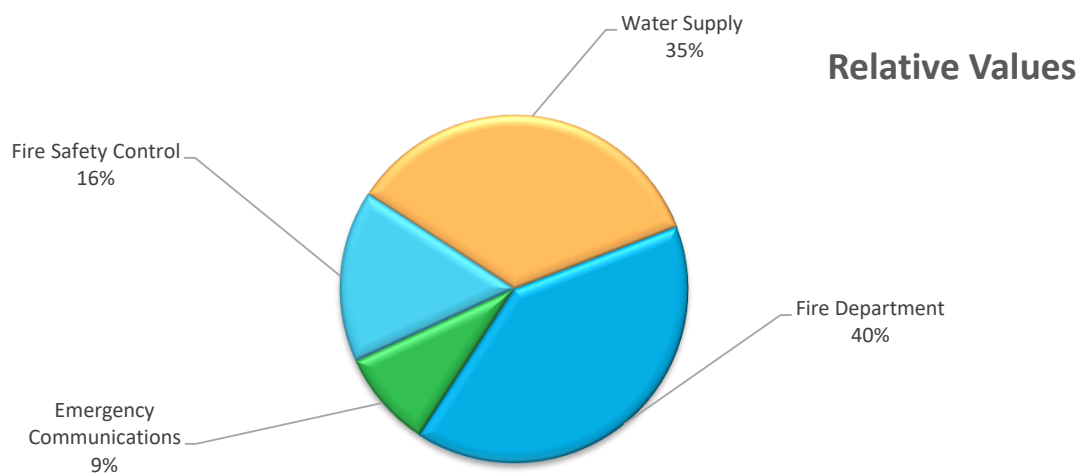
#### **Fire Safety Control**

WSRB evaluates the fire code enforcement and fire safety education activities in the community.

The Protection Class evaluation process recognizes the efforts of communities to provide fire-protection services for citizens and property owners. This is why insurance companies use Protection Classes to help establish fair premiums for fire insurance — generally offering lower premiums in communities with better protection. By offering economic benefits for communities that invest in their firefighting services, the evaluation provides a real incentive for improving and maintaining fire protection.

To determine a community's Protection Class, WSRB uses the 2013 version of the Community Protection Class Grading Schedule. The Grading Schedule measures the fire protection capabilities of a community by means of a point system or, for communities without a recognized water supply, by comparison with minimum criteria. Under the point system, pertinent items are evaluated against the standards set forth in the schedule and points are assigned for each deviation from these standards, depending on the importance of the item and the degree of deviation.

The four major areas considered under the point system, as well as the relative value allocated to each, are shown below.

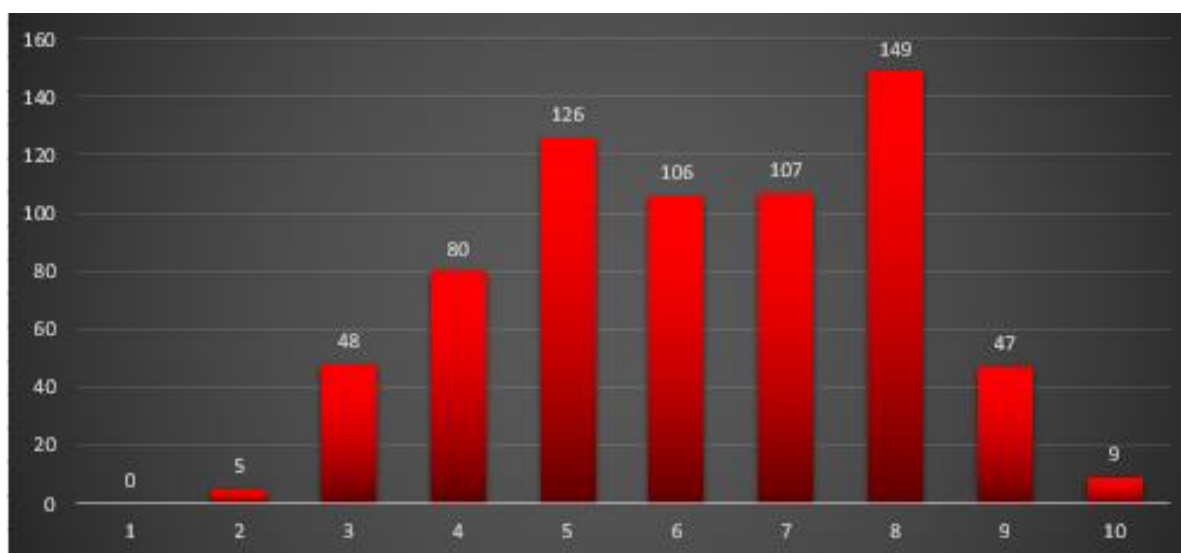


These four areas are evaluated and scored independent of each other. These scores are then combined in a final calculation to determine the Protection Class Grading for the community.

The following pages provide a point summary of all the items evaluated in the four major areas and for the final calculation to determine the Protection Class Grading for the community. The point system employed by the grading schedule is a deficiency point system with zero being the best score (100% credit). Following the point summary for each area and the final calculation is an explanation of the item, the pointed scored in each item and the percentage of credit attained for the item.

The Protection Class Grading produced by WSRB's evaluation is the overall Protection Class for the community, not the Protection Class of the all the properties located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class Grading to determine the Protection Class Rating of an individual property located within the community.

Buildings and property located within the graded community are eligible for the Protection Class of the community, but no better, if they meet the distance to fire station and applicable fire hydrant requirements. If these requirements are not met, the building will receive a different Protection Class Rating than the Protection Class Grading of the community. The chart below shows the number of communities in each Protection Class Grade across Washington State.



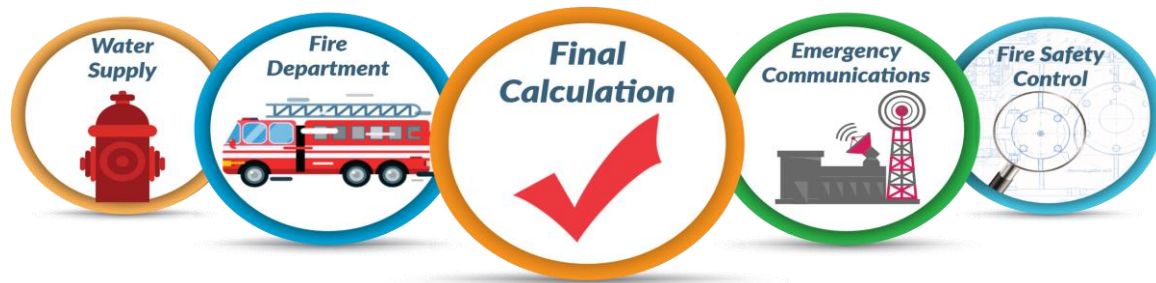
Protection Classes

## QUESTIONS?

Please contact the WSRB Fire Protection Analyst that conducted the evaluation if there are any questions on the evaluation. Their contact information is located on the results letter that accompanied this report or contact WSRB at 206-217-9772 or email us at [PublicProtection@wsrb.com](mailto:PublicProtection@wsrb.com)

Please contact WSRB Customer Service at 206-217-0101 or [customerservice@wsrb.com](mailto:customerservice@wsrb.com) if there are any questions on the Protection Class Rating for individual properties in the community. If the fire department or community officials are receiving Protection Class inquiries from insurance professionals, feel free to refer these inquiries to WSRB Customer Service.

# Final Calculation



# FINAL CALCULATION



## Community Protection Class

### Summary of Points

Sections Evaluated	Water Supply	Fire Department	Emergency Communications	Fire Safety Control
Points Scored	247	688	41	472
Maximum Points	1450	1950	450	650
% of Credit	83	65	91	27
Relative Value of Section	0.35	0.4	0.09	0.16
Relative Class of Section	2	4	1	8

Total credit for all sections

**6.76**

Divergence Score

**0**

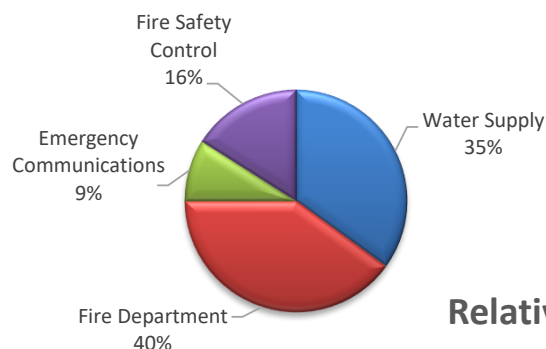
Community Protection Class (PC) Grade = (10-total Credit) + divergence score

Community Protection Class (PC) Grade = **3.24** (Unrounded Grade)

**Community Protection Class (PC) Grade =**

**4**

Protection Class	Unrounded Grade
1	0.0 to 1.00
2	1.01 to 2.00
3	2.01 to 3.00
4	3.01 to 4.00
5	4.01 to 5.00
6	5.01 to 6.00
7	6.01 to 7.00
8	7.01 to 8.00
9	8.01 to 9.00
10	9.01 to 10.00



## FINAL CALCULATION



### Community Protection Class Grade

Explanation of Points	Points Scored	% of Credit
-----------------------	---------------	-------------

<b>Water Supply</b>	<b>247</b>	<b>83%</b>
---------------------	------------	------------

The water supplies in the community that provide fire hydrants are evaluated in this section. In communities with multiple water supplies, the water supplies are prorated by their size (number of fire hydrants) to determine the overall score. Water Supply Items 1 through 5 make up the total score for this section.

<b>Fire Department</b>	<b>688</b>	<b>65%</b>
------------------------	------------	------------

The fire department servicing the community is evaluated in this section. The total service area of the fire department including incorporated and unincorporated area will be considered. Fire Department Items 1 through 17 make up the total score for this section.

<b>Emergency Communications</b>	<b>41</b>	<b>91%</b>
---------------------------------	-----------	------------

The Emergency Communication Center responsible for dispatching the fire department that services the community is evaluated. This evaluation will also apply to other communities the communication center dispatches fire services to. Emergency Communication Items 1 through 3 make up the total score for this section.

<b>Fire Safety Control</b>	<b>472</b>	<b>27%</b>
----------------------------	------------	------------

Fire Safety Control or fire prevention activities provided in the community are evaluated in this section. These activities may be provided by local, county or state authorities, all of which will be included in the evaluation. Fire Safety Control Items 1 through 4 make up the total score for this section.

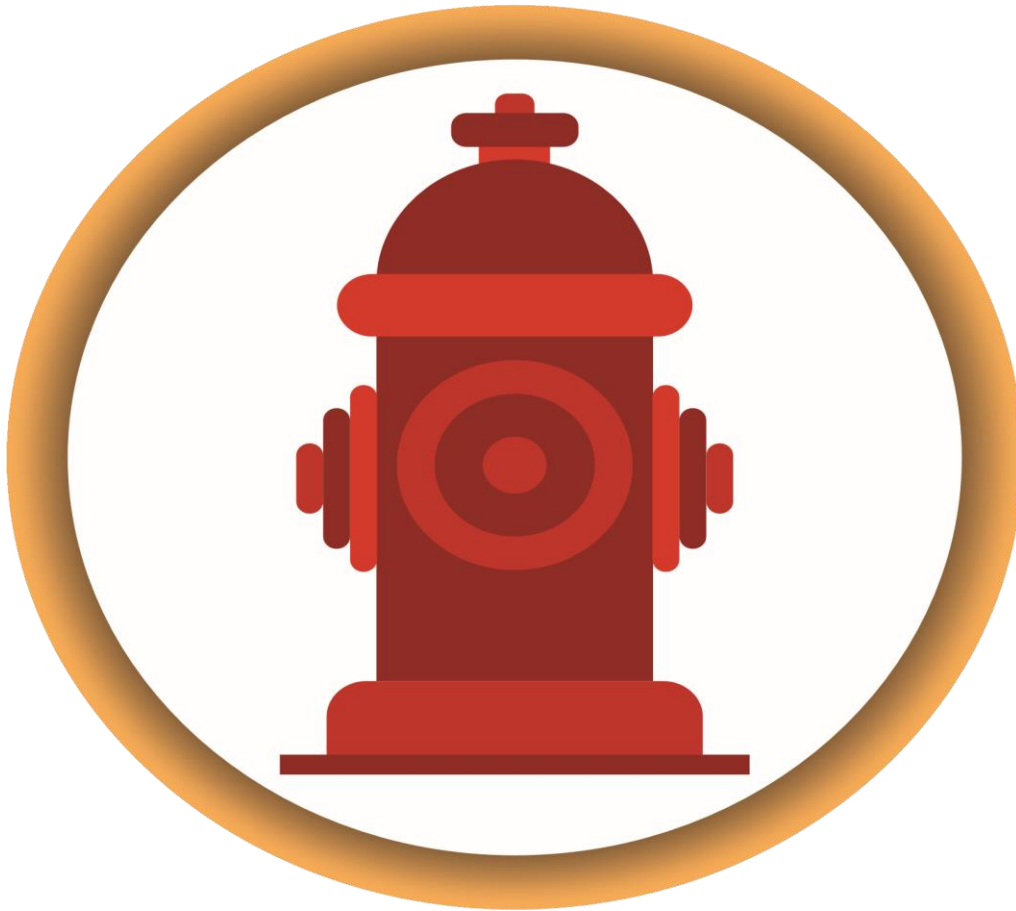
<b>Divergence</b>	<b>0</b>
-------------------	----------

Excessive difference between the class of the Water Supply and the class of the Fire Department prevents the more effective feature from being utilized to its full relative value. An additional number of points are assigned to the grading of the community to recognize this divergence. Divergence in class between Water Supply and Fire Department of 2 classes or more shall have points added to the final grading of the community.

<b>Community Protection Class (PC) Grade</b>	<b>4</b>
--	----------

The Protection Class produced by this schedule is the overall class of the community, not the classification of all property located in the community. The rules of the applicable protection class manual must be applied to the Community Protection Class to determine the PC of an individual property located within the community.

# Water Supply





# WATER SUPPLY



## SUMMARY OF POINTS

Item	Points
1 Adequacy of Water Supply	
1a. Commercial districts	116
1b. Residential districts	13
<b>Total Points for Item</b>	<b>129</b>
2 Distribution of Hydrants	
2a. Commercial districts	9
2b. Residential districts	0
<b>Total Points for Item</b>	<b>9</b>
3 Hydrants - Size, Type and Installation	
<b>Total Points for Item</b>	<b>0</b>
4 Hydrants - Inspection and Condition	
<b>Total Points for Item</b>	<b>17</b>
5 Arrangement, Operation and Maintenance of Water System Components	
5a. Arrangement and Operation	12
5b. Maintenance	80
<b>Total Points for Item</b>	<b>92</b>
<b>Water Supply Total Points</b>	<b>247</b>

# WATER SUPPLY



Explanation of Points	Points Scored	% of Credit
-----------------------	---------------	-------------

## 1. Adequacy of Water Supply

<b>1a. Commercial Districts</b>	<b>116</b>	<b>85%</b>
---------------------------------	------------	------------

This item evaluates the water system's ability to deliver the required fire flow for commercial properties in the community. The score for this item is determined by comparing the required fire flow for a building to the available fire flow. A building's required fire flow is calculated using type of construction, square footage, occupancy, external exposure, and whether the building is equipped with an automatic sprinkler system. Available fire flow is measured using hydrant flow tests and the capacity of the water system storage, pumps, filters, and mains.

<b>1b. Residential Districts</b>	<b>13</b>	<b>95%</b>
----------------------------------	-----------	------------

Fire flow availability is also evaluated in the residential districts of the community. The base fire flow requirement for residential properties is 1,000 gpm for a one-hour duration. In the context for the Protection Class Grading Schedule, "residential" refers to one- to four-family dwellings.

## 2. Distribution of Hydrants

<b>2a. Commercial Districts</b>	<b>9</b>	<b>97%</b>
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This item evaluates whether commercial buildings located in the community have an adequate number of fire hydrants and if the fire hydrants are well distributed around the building. Buildings specifically rated by WSRB are used in evaluating this item.

<b>2b. Residential Districts</b>	<b>0</b>	<b>100%</b>
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Residential structures in the community will be evaluated to determine if a fire hydrant is available within 600 feet. Point score is based on the total number of properties as compared to the number of properties with a fire hydrant within 600 feet.

## 3. Hydrants - Size, Type and Installation

	<b>0</b>	<b>100%</b>
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Hydrants shall conform to American Water Works Association (AWWA) Standards for dry-barrel hydrants. Standard hydrants must have a minimum of one pumper outlet and two 2.5-inch outlets, be connected to at least a 6-inch water main, and be provided with a control valve on connections between the hydrant and street main. Hydrants should also have a quick-connect fitting on the pumper port and uniform operating direction.

## WATER SUPPLY (continued)



Explanation of Points	Points Scored	% of Credit
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### 4. Hydrants - Inspection and Condition

17	83%
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Hydrants must be inspected annually, including operating the hydrant and checking the static pressure. Flow tests of hydrants must be conducted at least every 5 years. Fire hydrants shall be marked for available water flow, free of obstructions, and kept in good condition.

### 5. Arrangement, Operation and Maintenance of Water System Components

#### 5a. Arrangement and Operation

12	88%
----	-----

"Arrangement" of the water system components evaluates the location and number of water sources and water storage units. Multiple water sources and water storage locations provide redundancy in order to reduce the impact of failure of one part of the system. "Operation" considers how the system is monitored and controlled (telemetry), how water is delivered (pumps or gravity), and if backup power is provided for pumps. The water system shall be managed by a state-certified operator.

#### 5b. Maintenance

80	60%
----	-----

This item evaluates the frequency of visits to and inspections of water system components other than hydrants. Regular visits and inspections allow for timely maintenance and repair of components. Water system components including wells, pumps, water tanks and reservoirs, pressure reducing, altitude, float control and isolation valves shall be regularly inspected.

# Fire Department



# Fire Department



## SUMMARY OF POINTS

Item	Points
<b>1 Pumpers</b>	
1a. Number of Pumpers in Service	<u>0</u>
1b. Number of Reserve Pumpers	<u>0</u>
<b>Total Points for Item</b>	<b>0</b>
<b>2 Ladder Trucks/Ladder Service</b>	
2a. Number of Ladder Trucks in Service	<u>20</u>
2b. Number of Reserve Ladder Trucks	<u>20</u>
2c. Ground Ladder Service	<u>3</u>
<b>Total Points for Item</b>	<b>43</b>
<b>3 Distribution of Companies</b>	
<b>Total Points for Item</b>	<b>67</b>
<b>4 Pumper Capacity</b>	
4a. Pumper Capacity	<u>5</u>
4b. Reserve Pumper Capacity	<u>1</u>
<b>Total Points for Item</b>	<b>6</b>
<b>5 Maintenance and Condition of Apparatus</b>	
<b>Total Points for Item</b>	<b>19</b>
<b>6 Number of Officers</b>	
6a. Number of Chief Officers	<u>0</u>
6b. Number of Company Officers	<u>6</u>
<b>Total Points for Item</b>	<b>6</b>
<b>7 Department Staffing</b>	
7a. Normal Minimum Strength of Day Shift	<u>65</u>
7b. Normal Minimum Strength of Night Shift	<u>65</u>
<b>Total Points for Item</b>	<b>130</b>

## Fire Department



### SUMMARY OF POINTS (continued)

Item	Points
8 Engine and Ladder Company Unit Staffing	
<b>Total Points for Item</b>	<b>25</b>
9 Stream Devices	
<b>Total Points for Item</b>	<b>6</b>
10 Equipment for Pumpers and Ladder Trucks	
<b>Total Points for Item</b>	<b>4</b>
11 Hose	
11a. Total Amount of LDH & 2½-inch Hose	<u>4</u>
11b. Total Amount of 1½-inch Hose	<u>0</u>
11c. Total Amount of Pre-Connected Hose	<u>0</u>
<b>Total Points for Item</b>	<b>4</b>
12 Condition of Hose	
<b>Total Points for Item</b>	<b>3</b>
13 Training	
<b>Total Points for Item</b>	<b>212</b>
14 Response to Alarms	
<b>Total Points for Item</b>	<b>0</b>
15 Fire Operations	
<b>Total Points for Item</b>	<b>133</b>
16 Special Protection	
16a. Fireboats in Service	<u>0</u>
16b. Other Needed Special Protection	<u>0</u>
<b>Total Points for Item</b>	<b>0</b>
17 Miscellaneous Factors and Conditions	
17a. Fire Stations	<u>8</u>
17b. Fuel	<u>4</u>
17c. Delays in Response	<u>18</u>
<b>Total Points for Item</b>	<b>30</b>
<b>Fire Department Total Points</b>	<b>687</b>

## Fire Department



Explanation of Points	Points Scored	% of Credit
-----------------------	---------------	-------------

### 1. Pumpers

<b>1a. Pumpers</b>	<b>0</b>	<b>100%</b>
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The number of pumpers in service and regularly responding to alarms must be sufficient to properly protect the community. The number of pumpers required is determined by evaluating the fire flow requirements in the community, geographical distribution of structures, response of engines outside the community, and frequency of alarms. The required number of pumpers is compared to the number of pumpers in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item.

<b>1b. Reserve Pumpers</b>	<b>0</b>	<b>100%</b>
----------------------------	----------	-------------

To maintain the required number of pumpers in service, one reserve pumper is required for every 8 pumpers required to be in service, but no fewer than 1. Reserve pumpers shall be fully equipped, tested, and maintained for service.

### 2. Ladder Trucks/Ladder Service

<b>2a. Number of Ladder Trucks in Service</b>	<b>20</b>	<b>80%</b>
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The number of ladders trucks in service and regularly responding to alarms must be sufficient to properly protect the community. A ladder truck is required when a community has at least 5 buildings with a required fire flow of 4,000 gpm or greater and/or 3 stories (35 feet) in height. The required number of ladders is compared to the number of ladders in service. Pumper-ladder trucks will be credited under this item. Automatic aid will be considered in this item. The height and type of ladder truck will also be evaluated in this item.

<b>2b. Number of Reserve Ladder Trucks</b>	<b>20</b>	<b>0%</b>
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To maintain the required number of ladder trucks in service, one reserve ladder truck is required for every five ladder trucks required to be in service, but no fewer than one. Reserve ladders shall be fully equipped, tested, and maintained for service.

<b>2c. Ground Ladder Service</b>	<b>3</b>	<b>94%</b>
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In those communities not considered to require a standard ladder truck, sufficient ground ladders to reach the roofs of buildings must be carried on pumpers or special apparatus. The number, type, height, and testing of ground ladders will be evaluated in the item.



## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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### 3. Distribution of Companies

	67	67%
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Engine and ladder companies must be distributed to provide effective protection to the community. Structures should be within 1.5 road miles of a first-alarm engine company and 2.5 miles of a ladder company. Distances may be increased to 4 road miles in areas with separation of 100 feet or more between buildings. Pumper-ladders and automatic aid will be considered in this item.

### 4. Pumper Capacity

4a. Pumper Capacity	5	98%
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Adequate pumper capacity must be provided on the first alarm to meet or exceed basic fire flow. All fire pumps must be tested annually to receive full credit. Automatic aid will be considered in this item.

4b. Reserve Pumper Capacity	1	95%
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The total pumper capacity, including reserve pumpers, with 1 for each 8 required pumpers (but not fewer than 1 and including the largest) out of service, must be sufficient to maintain the total pumper capacity required.

### 5. Maintenance and Condition of Apparatus

19	87%
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The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.

5a. Facilities and Personnel	80%
------------------------------	-----

Facilities, preferably departmental, must be adequate to properly service all apparatus, and an adequate number of personnel trained in fire apparatus maintenance must be provided. This item evaluates who operates the maintenance facility and the certifications of the maintenance personnel.

5b. Preventative Maintenance	70%
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A suitable preventive maintenance program must be in effect; this includes service tests of pumpers and inspection and testing of aerial ladders and elevating platforms. This item evaluates how often apparatus are checked and inspected. The testing frequency of pumps, aerials, foam systems, CAFS, breathing air systems, apparatus road test, and weight verification are also evaluated.

5c. Age of Apparatus	100%
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The age of apparatus will be considered in determining condition. Pumpers, ladders, and support vehicles older than 15 years will receive deficiency points. Apparatus older than 25 years will receive additional deficiency points.

## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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### 6. Number of Officers

6a. Number of Chief Officers	0	100%
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A chief officer in charge of the department must be on duty at all times but need not sleep at a fire station to be considered on duty provided there are adequate means for notification and response to alarms. Departments with more than 8 companies, in addition to the chief and assistant chief, must have sufficient battalion or district chiefs to provide one on duty in a fire station at all times for each 8 companies or major fraction required. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

6b. Number of Company Officers	6	88%
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There must be sufficient company officers to provide one on duty at all times with each required engine or ladder company. Two active volunteer officers may be considered equivalent to one full on-duty officer, up to half the number of officers required.

### 7. Department Staffing

7a. Normal Minimum Strength of Day Shift	65	68%
--	----	-----

There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.

7b. Normal Minimum Strength of Night Shift	65	68%
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There must be 6 firefighters on duty for each of the required engine and ladder companies. Only personnel who participate in actual structural firefighting operations will be credited. Personnel staffing ambulances or other units serving the general public may be credited depending on the extent they are available for firefighting duties. Three call and/or volunteer firefighters will be considered equivalent to 1 on-duty firefighter. Call or volunteer firefighters may not exceed half the required strength of required companies. If adequate records of response are not kept, credit may be limited to 1 on-duty for each 6 call or volunteer firefighters. Call or volunteer firefighters working defined shifts at fire stations may be considered equivalent to on-duty firefighters. Response of firefighters on automatic aid apparatus and the response of off-shift personnel will also be considered in this item.

## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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### 8. Engine and Ladder Company Unit Staffing

	25	92%
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Unit staffing strength for engine and ladder companies only considers companies with apparatus in service credited in items 1 and 2. The amount by which the required 6 on-duty firefighters per company exceeds the on-duty strength (as determined in Item 7), divided by the number of in-service companies, equals the average deficiency per company.

### 9. Stream Devices

	6	88%
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Turrets, nozzles, foam equipment, and, where required, elevated stream devices must be provided. This item evaluates the required stream devices to the devices provided. Credit will be limited if annual testing is not conducted and maintenance records are not provided.

### 10. Equipment for Pumpers and Ladder Trucks

	4	96%
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This item will consider equipment for existing pumpers and ladder trucks, except for such equipment considered in Items 2c (ground ladders), 9 (stream devices), and 11 (hose). Credit for SCBA's will be limited if inspection and testing is not conducted and maintenance records are not provided.

### 11. Hose

11a. Total Amount of LDH & 2 1/2-inch Hose	4	95%
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This Item considers whether adequate hose is carried on each pumper and whether adequate reserve hose is provided. The requirement for large diameter hose (3.5 inches or larger) for each pumping apparatus is 600 feet on the apparatus and 300 feet in reserve. The requirement for 2.5-inch + hose is 800 feet on the apparatus and 400 feet in reserve.

11b. Total Amount of 1 1/2-inch Hose	0	100%
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The requirement for 1.5-inch + hose on each pumping apparatus is 400 feet with 200 feet in reserve.

11c. Total Amount of Pre-Connected Hose	0	100%
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The requirement for pre-connected, 1.5-inch + hose on each pumping apparatus is 200 feet. Booster hose that is pre-connected to the pump is creditable, but booster hose smaller than 1.5 inches will only receive 50% credit.

## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
<b>12. Condition of Hose</b>	<b>3</b>	<b>96%</b>
The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.		
<b>12a. Hose Testing Frequency</b>		<b>100%</b>
All hose, in service and reserve, must be maintained in good condition and tested annually in accordance with NFPA Standard 1962.		
<b>12b. Age of Hose</b>		<b>77%</b>
The age of all hose in service and in reserve is evaluated for the item.		
<b>12c. Hose Washing, Drying, and Storage Facilities</b>		<b>100%</b>
Suitable facilities and procedures must be provided for washing, drying, and storing hose. This is to prevent mildew in the hose jackets and rust / corrosion in hose compartments.		
<b>12d. Cotton Jacket Hose</b>		<b>100%</b>
An additional deficiency will be added for cotton-jacketed hose.		
<b>13. Training</b>	<b>212</b>	<b>29%</b>
The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.		
<b>13a. Supervision</b>		<b>80%</b>
Training must be under the guide of a qualified training officer. Maximum credit is achieved when the training officer has at least 10 years of direct incident command experience, a rank of captain or better, and certification as a Fire Instructor II. Personnel in charge of training sessions must be certified as fire instructors.		
<b>13b. Company Training</b>		<b>13%</b>
Firefighters are required to have a minimum of 20 hours of structural fire fighting training per firefighter, per month. This amount can be reduced by 25%, to 15 hours, for firefighters that are certified Firefighter I and by 50%, to 10 hours, for firefighters that are certified firefighter II. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.		
<b>13c. Training Center Training</b>		<b>10%</b>
This item evaluates the quantity of training at a training center and the quality of the training center. A minimum of 8 half-day (3-hour) drills per year, including 2 drills at night and 4 multiple-company drills, shall be provided for all firefighters. Training centers shall be provided with a drill tower that is 3 stories in height (4 stories in height if a ladder truck is required in the community), a structure to support live fire simulation, a combustible liquid pit (minimum of 20-foot radius accessible from all directions), training aids and props, and an area of at least 2 acres suitable for multi-company operations.		
<b>13d. Officer Training</b>		<b>80%</b>
A minimum of two days per year (16 hours) is required for all officers. This amount can be reduced by 25%, to 12 hours, for officers that are certified Fire Officer I and by 50%, to 8 hours, for officers that are certified Fire Officer II. Officer training should include topics outlined in NFPA 1021: Standard for Fire Officer Professional Qualifications that focus on leadership, fire tactics, and incident command.		

## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
<b>13e. Driver &amp; Operator Training</b>		<b>100%</b>
Personnel who drive and/or operate apparatus shall participate in a minimum of 1 day (8 hours) of training per year. Training should include topics outlined in NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications. Current state-approved EVIP certification can serve in lieu of annual training.		
<b>13f. Recruit Training</b>		<b>100%</b>
New fire department members shall receive a minimum of 240 hours of recruit training before becoming active firefighters. Training should include topics outlined in NFPA 1001: Standard for Fire Fighter Professional Qualifications.		
<b>13g. Pre-Fire Planning</b>		<b>10%</b>
An annual inspection of all commercial or similar type buildings is required. Pre-fire information shall be readily available on responding apparatus. Pre-fire plans should be in accordance with NFPA 1620: Recommended Practice for Pre-Incident Planning.		
<b>14. Response to Alarms</b>	<b>0</b>	<b>100%</b>
The points scored in this item are based on the percentage scores of the subitems below. No points are assigned to these subitems.		
<b>14a. Run Cards</b>		<b>100%</b>
Run cards detailing the fire department response to fires must be developed for all areas of the community.		
<b>14b. Commercial Districts</b>		<b>100%</b>
Adequate response to alarms must be established. The required first alarm response depends on the district's basic fire flow. For districts with basic fire flow from 1500-3,999 gpm, at least 1 chief officer, 2 engine companies, and 1 ladder service company are required. For districts with basic fire flow from 4,000-8,999 gpm, at least 1 chief officer, 3 engine companies, and 1 ladder truck company are required. When basic fire flow is 9,000 gpm or higher, at least 1 chief officer, 3 engine companies, and 2 ladder truck companies are required.		
<b>14c. Residential Districts</b>		<b>100%</b>
At least 1 chief officer, 2 engine companies, and adequate ladder equipment are required to respond to residential districts.		
<b>14d. Multiple Alarms</b>		<b>100%</b>
Engine company response to each additional alarm for the same fire should approximate the number of engine companies required for the first alarm.		
<b>14e. Cover Plan</b>		<b>100%</b>
Response areas in the community must have a cover plan for when the first due companies are out of service.		

## Fire Department (Continued)



Explanation of Points	Points Scored	% of Credit
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### 15. Fire Operations

	133	58%
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Consideration will be given to the ability of the department to operate effectively at fires. Effectiveness is dependent on staffing and training; however, others factors can also affect fire operations. Percentage for this item will be determined by taking the average of the percentages from Items 7, 8, and 13 and adjusting as conditions warrant.

### 16. Special Protection

16a. Insufficient Fireboats in Service	0	100%
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A suitably staffed, equipped, and maintained fireboat will be required where at least 1 mile of wharf frontage necessitates firefighting operations from the water side. Such frontage must be within 1.5 miles of a fireboat.

16b. Lack of Other Needed Special Protection	0	100%
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Conditions in the municipality that require special fire department protection in addition to that covered elsewhere in this schedule will be considered in this item. Conditions considered in this item include but are not limited to: waterfront properties needing some special protection but not requiring a conventional fireboat, extensive brush areas, extensive bulk oil and other hazardous storage.

### 17. Miscellaneous Factors and Conditions

17a Fire Stations	8	92%
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This item considers suitability of fire stations, including construction, housing of apparatus, and if the station is provided with a secondary power source. Communication equipment should be provided at fire stations and include two-way radios, spare portable radios, commercial telephone, and means for public reporting to the dispatch center. Firefighters must have two separate means for receiving alarms from the communication center that are under the control of the communications center. At least one means must be supervised. If the stations are not staffed, firefighters must be equipped with the means to receive alarms.

17b. Fuel	4	80%
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Fuel must be available in sufficient quantities at fire stations. Suitable arrangements must be made for delivery of fuel to apparatus at fires of long duration.

17c. Delays in Response	18	82%
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The possibility of delays due to poor condition of roads, including snow and ice, steep grades, vehicle parking, traffic, railroad grade crossings, and similar features are considered in this item.

# Emergency Communications





# Emergency Communications



## SUMMARY OF POINTS

Item	Points
<b>1 Communication Center</b>	
1a. Building Construction, Exposures and Communicating Openings	5
1b. Fire Protection	0
1c. Security	5
1d. Emergency Lighting	0
<b>Total Points for Item</b>	<b>10</b>
<b>2 Communication Center Equipment</b>	
2a. Computer-Aided Dispatch (CAD)	6
2b. Recording	0
2c. Telephone Service	0
2d. Supervision	0
2e. Dispatch Circuits	20
2f. Emergency Power	2
<b>Total Points for Item</b>	<b>28</b>
<b>3 Telecommunicators</b>	
3a. Training	1
3b. Number of Telecommunicators on Duty	2
<b>Total Points for Item</b>	<b>3</b>
<b>Emergency Communications Total Points</b>	<b>41</b>

# EMERGENCY COMMUNICATIONS



Explanation of Points	Scored Points	% of Credit
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## 1. Communications Center

<b>1a. Building Construction, Exposures and Communicating Openings</b>	<b>5</b>	<b>90%</b>
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This item evaluates the building where the communication center is located. Communication centers should be in fire-resistive, separate buildings without internal or external exposures.

<b>1b. Fire Protection</b>	<b>0</b>	<b>100%</b>
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This item evaluates the adequacy of fire protection provided for the communication center, including portable fire extinguishers, fire alarms, automatic sprinkler systems and suppression systems in computer and data-processing equipment rooms.

<b>1c. Security</b>	<b>5</b>	<b>50%</b>
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Communication center security is meant to protect against vandalism, terrorism, and civil disturbances. Restricted access, security of doors and windows, and the vulnerability of the areas surrounding the center are considered.

<b>1d. Emergency Lighting</b>	<b>0</b>	<b>100%</b>
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Communication centers must be provided with emergency lighting that will be placed in service immediately after a power loss so operations can continue uninterrupted. At least one self-charging lantern or flashlight should also be provided.

## 2. Communications Center Equipment

<b>2a. Computer-Aided Dispatch (CAD)</b>	<b>6</b>	<b>91%</b>
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Features and capabilities of the Computer-Aided Dispatch (CAD) system are evaluated. Maximum credit is achieved when the CAD system has enhanced 911, wireless and VoIP capabilities; allows data exchange; has a redundant backup system with automatic switch-over to backup; selects and recommends units to be dispatched; is MDC-capable; and has automatic vehicle locating, GIS capabilities, and management information system (MIS). Credit will be prorated depending on the communication center's CAD capabilities.

<b>2b. Recording</b>	<b>0</b>	<b>100%</b>
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All incoming and outgoing voice transmissions shall be recorded including the date and time. All telecommunicators should have access to immediate playback of recordings.

<b>2c. Telephone Service</b>	<b>0</b>	<b>100%</b>
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The number of required telephone lines for emergency and business calls is determined by the population served by the communication center. Additional lines may be required if emergency calls other than fire are received or if central station alarms are received. One outgoing-only line must also be provided.



## EMERGENCY COMMUNICATIONS (continued)

Explanation of Points	Scored Points	% of Credit
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<b>2d. Supervision</b>	<b>0</b>	<b>100%</b>
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All components of the alarm dispatch circuits shall be monitored for integrity, including dispatch circuits, transmitters, repeaters, and primary and secondary power. Fault conditions detected shall actuate an audible and visual trouble signal at a constantly attended location.

<b>2e. Dispatch Circuits</b>	<b>20</b>	<b>50%</b>
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The communication center must have separate primary and secondary dispatch circuits for transmitting alarms. Maximum credit is obtained when dual circuits are provided, circuits are supervised, there is automatic switchover to a secondary circuit, and all components of the system are owned by the communication center.

<b>2f. Emergency Power</b>	<b>2</b>	<b>93%</b>
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The Communication Center shall be provided with an emergency power source. An uninterruptible power supply (UPS) shall be provided along with an automatically starting generator.

### 3. Telecommunicators

<b>3a. Training</b>	<b>1</b>	<b>98%</b>
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A minimum of 480 hours of initial training is required for Telecommunicators. General dispatch training and fire dispatch training should be a minimum of 240 hours each. Non-certified telecommunicators should receive 40 hours of continuing education per year. Certified Telecommunicator I personnel and certified Telecommunicator II personnel shall receive 30 hours and 24 hours of continuing education, respectively.

<b>3b. Number of Telecommunicators on Duty</b>	<b>2</b>	<b>98%</b>
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The number of required telecommunicators on duty is based on the total number of calls received per year at the communication center. If the communication center is meeting the call-answering and dispatching times set forth by NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems, then full credit will be applied in this item.

# Fire Safety Control



# Fire Safety Control



## SUMMARY OF POINTS

Item	Points
<b>1 Fire Code Enforcement</b>	
1a. Fire Marshal	15
1b. Fire Plan Review	17
1c. Inspections of Fire Code Permits	13
1d. Fire Code Inspections of Existing Occupancies	344
1e. Confidence Testing of Fire Protection Systems	15
<b>Total Point for Item</b>	<b>404</b>
<b>2 Public Fire Education</b>	
2a. School Programs	35
2b. Adult Programs	15
<b>Total Point for Item</b>	<b>50</b>
<b>3 Fire Investigations</b>	
<b>Total Point for Item</b>	<b>10</b>
<b>4 Building Code Enforcement</b>	
<b>Total Point for Item</b>	<b>8</b>
<b>Fire Safety Control Total Points</b>	<b>472</b>

# FIRE SAFETY CONTROL



Explanation of Points	Scored Points	% of Credit
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## 1. Fire Code Enforcement

<b>1a. Fire Marshal</b>	<b>15</b>	<b>25%</b>
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The fire marshal shall oversee fire code enforcement. The fire marshal shall have 10 or more years of code enforcement experience, be certified as a fire marshal, and receive at least 16 hours of fire-code-related continuing education per year.

<b>1b. Fire Plan Review</b>	<b>17</b>	<b>66%</b>
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Review of plans for fire code compliance must be done by experienced, certified personnel. The plan reviewer shall have 5 or more years of plan review experience, be a registered design professional (licensed professional engineer), and receive at least 16 hours of plan review related continuing education per year. The plan review department needs to have adequate staffing to ensure comprehensive plan reviews.

<b>1c. Inspection of Fire Code Permits</b>	<b>13</b>	<b>74%</b>
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New and renovated occupancies requiring a fire code permit must be inspected prior to issuing a Certificate of Occupancy. Fire inspectors shall be certified with 5 or more years of experience in inspections and receive at least 16 hours of fire inspection related continuing education per year. Adequate department staffing levels must be maintained to ensure comprehensive inspections.

<b>1d. Fire Code Inspections of Existing Occupancies</b>	<b>344</b>	<b>14%</b>
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Fire Code Inspections of existing occupancies shall be conducted. The frequency of inspections will be evaluated using Table 7 in the Protection Class Grading Schedule. Fire code inspectors should be certified with 5 or more years of experience and receive minimum of 16 hours of fire inspection related continuing education per year. Staffing levels must be sufficient to ensure comprehensive inspections.

<b>1e. Confidence Testing of Fire Protection Systems</b>	<b>15</b>	<b>25%</b>
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Fire protection systems must be inspected and tested in accordance with the applicable NFPA standards. A program shall be in place to ensure these inspections are done, monitor the inspections results, and ensure deficiencies found with the systems are corrected.

## 2. Public Fire Education

Fire safety education must be provided to the general public. Fire educators should be Certified Public Educators in accordance with NFPA 1035, have 5 or more years of experience, and receive 16 hours of public-education-related continuing education per year. All education programs and events should be documented and should include date, instructor, topics taught, length of class, and number of students.

## FIRE SAFETY CONTROL (Continued)



Explanation of Points	Scored Points	% of Credit
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### 2a. School Programs

35

0%

School programs should include age appropriate subjects for all students, preschool to the 12th grade.

### 2b. Adult Programs

15

0%

Adult education should include programs for all segments of the adult population in the community.

## 3. Fire Investigations

10

50%

Fire investigations must be done to determine the cause and origin of all fires. Fire investigator shall have 5 or more years of experience, be a commissioned law officer, be certified as a fire investigator, and receive at least 16 hours of fire-investigation-related continuing education per year. In addition, sufficient staff levels are required to ensure adequate response to fires, and all fires should be reported to NFIRS.

## 4. Building Code Enforcement

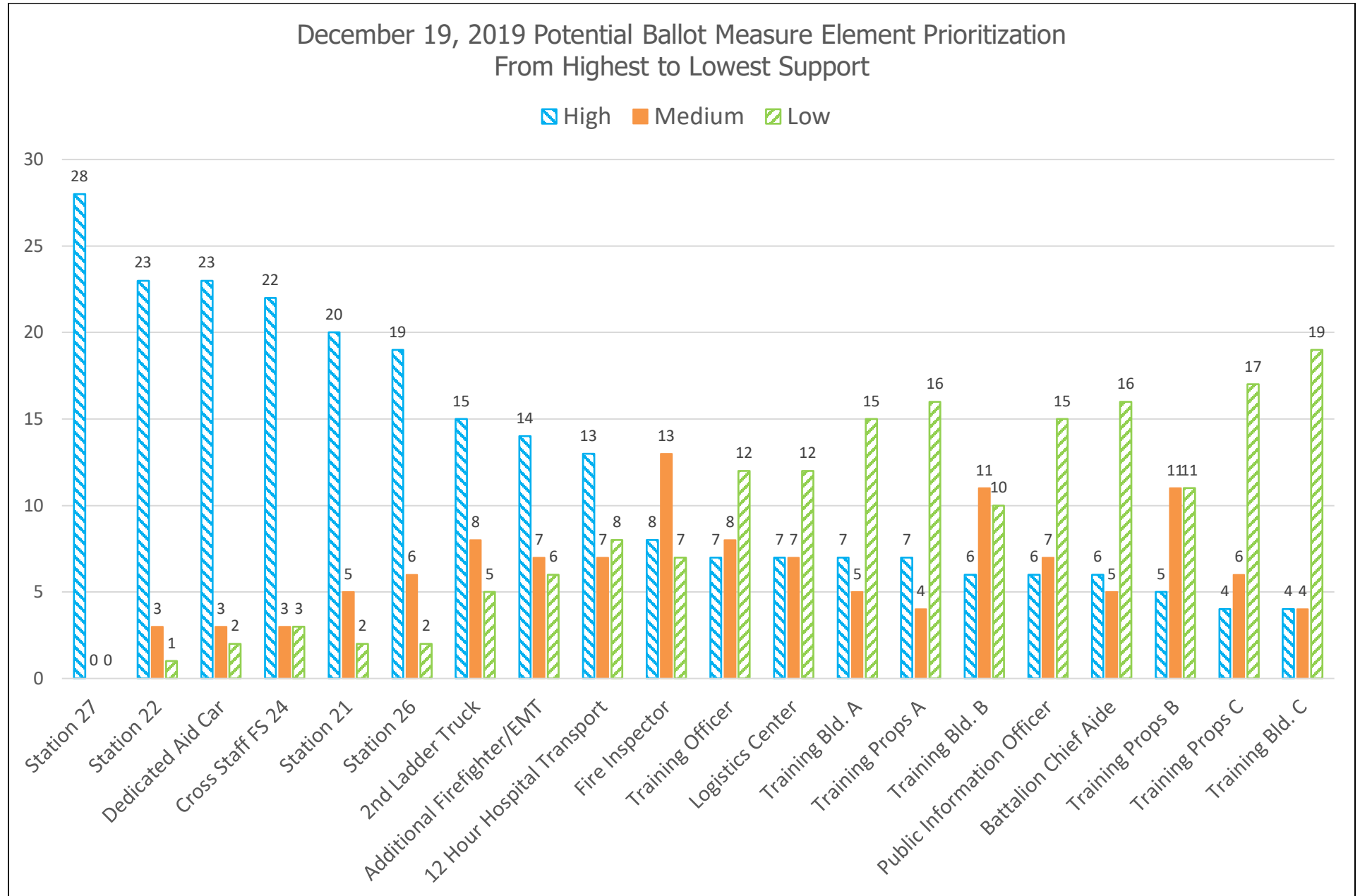
8

80%

Current building codes must be adopted and effectively enforced. The score for this item is based on the current Building Code Class of the community.



The chart below shows the elements in order of support (from December 19, 2019 top of mind exercise):



The chart below shows the elements in order of their tiers and how many high, medium, and low priority votes each element received (from December 19, 2019 top of mind exercise):

<b>Tier</b>	<b>Ballot Measure Elements</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>
<b>Tier 1 Critical Needs: Capital</b>	Station 27	28	0	0
	Station 22	23	3	1
	Station 26	19	6	2
	Station 21	20	5	2
<b>Tier 1 Critical Needs: Operational</b>	Dedicated Aid Car	23	3	2
	Cross Staff Station 24	22	3	3
<b>Tier 2 Strategic Plan/WSRB: Capital</b>	2 <sup>nd</sup> Ladder Truck	15	8	5
<b>Tier 2 Strategic Plan/WSRB: Operational</b>	12 Hour Transport	13	7	8
	Fire Inspector	8	13	7
	Public Information Officer	6	7	15
<b>Tier 3 Service Upgrades: Capital</b>	Logistics Center	7	7	12
	Training Bld. A	7	5	15
	Training Bld. B	6	11	10
	Training Bld. C	4	4	19
	Training Props A	7	4	16
	Training Props B	5	11	11
	Training Props C	4	6	17
<b>Tier 3 Service Upgrades: Operational</b>	Training Officer	7	8	12
	Additional Firefighter/EMT	14	7	6
	Battalion Chief Aide	6	5	16

At their February 26, 2020 Meeting ComSAG participated in a two-part anonymous voting exercise. The first part consisted of voting on whether the Council should place one measure or two on the ballot. The second part consisted of voting on whether the operating investments should be financed with a permanent or multi-year levy lid lift. The questions asked, the pros and cons, and the outcomes of each vote are shown below.

	<b>Question</b>	<b>Support</b>
Q1	One 9-Year Levy Lid Lift Measure?	36%
	OR	
	Two Measures: One Permanent Levy and One Capital Bond?	64%
Q2	Permanent Levy?	59%
	OR	
	Multi-Year Levy?	41%

## Key Messages and Important Information for the Public to Know:

Throughout the ComSAG meetings, participants were asked for input about the kinds of information needed to develop a recommendation, and what information the public should have to make an informed choice about the ballot measure. Below are themes that emerged from the group, key messaging the ComSAG wants Council to keep in mind when evaluating all elements, and what the ComSAG thinks the public should know.

### Key Messages for the Public:

- **“Protect them so they can protect us.” or “They protect us. Let’s protect them.”**  
Participants emphasized that firefighter/EMTs need to stay healthy in order to reach the public during everyday 911 calls, and catastrophic events. This sentiment was largely supporting the fire station renovations. Seismic upgrades are needed to ensure firefighter/EMTs can enter and exit the stations in the event of a major seismic event. Similarly, upgrades to stations to minimize exposure to harmful substances can improve firefighter/EMT health and help slow the rising incidence of cancer in the profession.
- **“Everybody in the community is served by the Fire Department and everyone benefits from these investments.”**  
There was a realization that, although investments being made seem specific to neighborhoods’ fire stations, all members of the community from all walks of life are served with the same improvements to response times, seismically sound and healthier fire stations.
- **“Keep messaging simple and honest.”**  
Participants noted that information to the public should be relatable to everyone (“make it human”) and speak to what matters to the public. Using individuals’ personal experiences with a situation where they relied on the Fire Department to save their life or property would be compelling.
- **“Kirkland has always used voted debt to fund fire station construction.”**  
Debt allows for current and future community members to pay for fire service investments. All generations have a responsibility to pay for maintaining fire stations. “It’s a generational responsibility.”
- **“The elements presented were the result of studies completed by outside experts.”**  
Recommendations from the Fire Strategic Plan and the Washington Survey and Ratings Bureau are the basis for the recommended elements proposed to the ComSAG. Making these investments will implement most of the remaining recommendations from these studies.

### Important Messages for the Council about the ComSAG Recommendation:

- **“All of the projects presented to the ComSAG are important and can make the Fire service better for the community as a whole.”**

Projects recommended as outside of the “Definitely Include” category are important and worth consideration. Participants wanted to provide flexibility to the Council in choosing projects for the ballot measure and sizing. Participant didn’t want the ballot measure to fail because of the cost to taxpayers. Some members wanted to pursue all the projects and believed that if the City didn’t ask for the investments now, they may never be considered.

- **“There is point where the cost per household will have a chilling effect on the ballot measure.”**

When each of the small groups developed recommendations for sizing the ballot measure, they felt that an annual impact of less than \$200 would be reasonable.

- Tax revenue collected by Kirkland is lower than surrounding cities.
- The “price of government” is relatively low which may indicate an ability to ask for new investments from the community to support reliable services.
- The expiration of the Annexation Sales Tax will make it difficult to sustain services let alone improve services.
- New development does and will continue to help pay for services to the public.
- If the City Council believes that the public is willing to invest more, the ComSAG recommendation provides the flexibility to add projects.

- **“Learn from other voted measures.”**

- Understand what happened to the recent failed Hospital district bond measures.
- Leverage the success of Proposition 1 (Enhanced Public Safety Sales Tax) and why it was successful.
- Learn what continues to make Medic One a successful measure.

## Important Information for the Public in Order to Make an Informed Vote on the Measure:

- 75% of all calls are for emergency medical services (EMS) while 25% are calls for fires.
- In addition to fire and EMS calls, firefighter/EMTs respond to hazardous materials incidents, water rescues and technical rescues such as extricating a subject from a trench.
- The Fire Department responds to calls within Kirkland, on Interstate 405, and in surrounding communities as needed to provide mutual aid.
- In order to provide services 24-hours a day 7 days a week, for every 1 firefighter/EMT position the City needs to hire 5 firefighter/EMTs to cover every shift, every day, all year. All firefighter/EMTs are also trained as emergency medical technicians (EMTs).
- The Kirkland Fire Department provides basic life support and can treat and transport patients to the hospital as needed. Medic One is a countywide system that provides advanced life support services for incidents such as a heart attack in progress or other life-threatening situations. Medic one works together with local fire departments.
- Current response times are not meeting the goals in certain areas of the city.
- Factors that impact response times include:
  - The time for the 911 dispatch center to process the call
  - The distance from the station to the incident
  - Traffic congestion
  - The time it takes to enter a building and reach the fire or the individual in need of medical assistance
  - Concurrent calls that may require another station to respond that is not as close to the incident
  - The types of structures being built – more height, more density which can increase the time it takes to intervene
- Demographic factors that are impacting fire and emergency medical services include the aging population, population growth as new jobs and housing are created, the types of new buildings require more time to enter and locate the emergency, and the amount of automobile traffic moving through the community.
- Response time goals are based on the time it takes from the time a call for service is received to the time it takes to arrive on scene and intervene.
- Response time goals are based on:
  - The time it takes for a fire to fully envelop a structure, creating a near impossible area to survive in (flashover) even for a Firefighter/EMT in full personal protective equipment (PPE)
    - Modern synthetic building and furnishings materials are more toxic and combustible and lead to flashover more quickly.
  - The time it takes for a heart attack to result in serious physical damage or death from lack of oxygen (brain death).

- A full response to a fire incident requires an “effective firefighting force” of no less than 18 firefighter/EMTs for a residential structure fire and 21 firefighter/EMTs for a commercial structure fire to provide enough resources control the fire, ensure that people are safe and, ensure firefighter/EMTs’ safety in dangerous environments.
- The fire stations have aged and are not built to current seismic and workplace health and safety standards. Stations need to be physically safe structures to withstand a seismic event and must provide for segregated areas to limit firefighter exposure to hazardous substances that they encounter in their daily work.
- Firefighter/EMTs are required to have an average of 58 hours of training each year including classroom instruction and manipulative real-life drills. Some training currently requires firefighters to leave Kirkland to use training facilities in neighboring jurisdiction which takes them out of service for local calls – negatively impacting response times as other fire stations have to cover their response area.
- A variety of economic and financial factors will impact the City’s ability to pay for this without additional revenue (e.g. annexation sales tax and competing needs within the City such as road maintenance, traffic management and parks.



**COMMUNITY SAFETY ADVISORY GROUP  
ANSWERS TO QUESTIONS FROM OCTOBER 29, 2019**

**Fire Department Operations and Level of Service**

**1. Why is there a steep incline in the last couple years on the calls for service graph?**

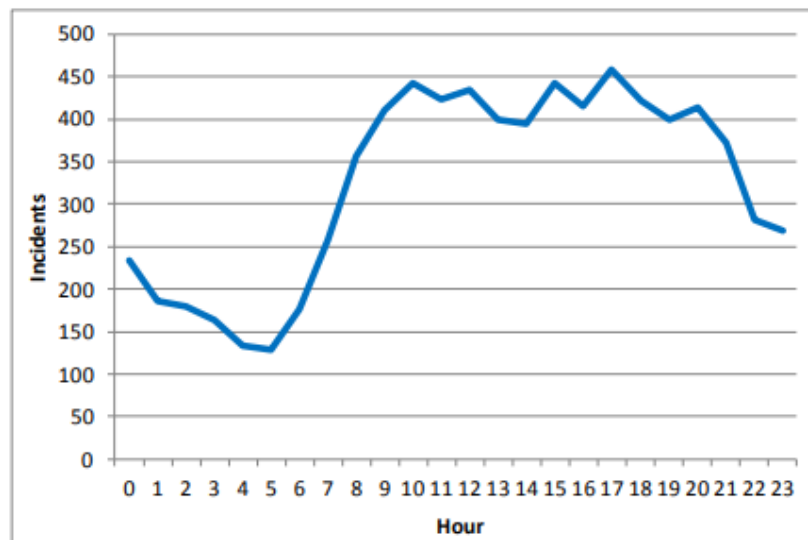
The bar chart showing the trend in calls for service is shown in ten-year increments. The higher than average increase in calls beginning just after 2010 was due to the annexation of the Finn Hill, Juanita and Kingsgate neighborhoods. Although the Kirkland Fire Department already served what was Fire District 41 (primarily in Finn Hill and Juanita), Kirkland assumed a portion of the Woodinville Fire and Life Safety service area located in the Kingsgate neighborhood. Woodinville fire had previously operated Station 34 located just east of the Kingsgate shopping center. They made the decision to close Station 34 leaving the area to be served by the Kirkland Fire Department.

**2. Are there more people in Kirkland at night/day? What are the statistics on peak call times?**

There are more people in Kirkland at night according to City-Data.com. Approximately 6,000 more people leave Kirkland to commute to work than commute into Kirkland. The peak hours of call volume is 0900-2100 (9am-9pm).

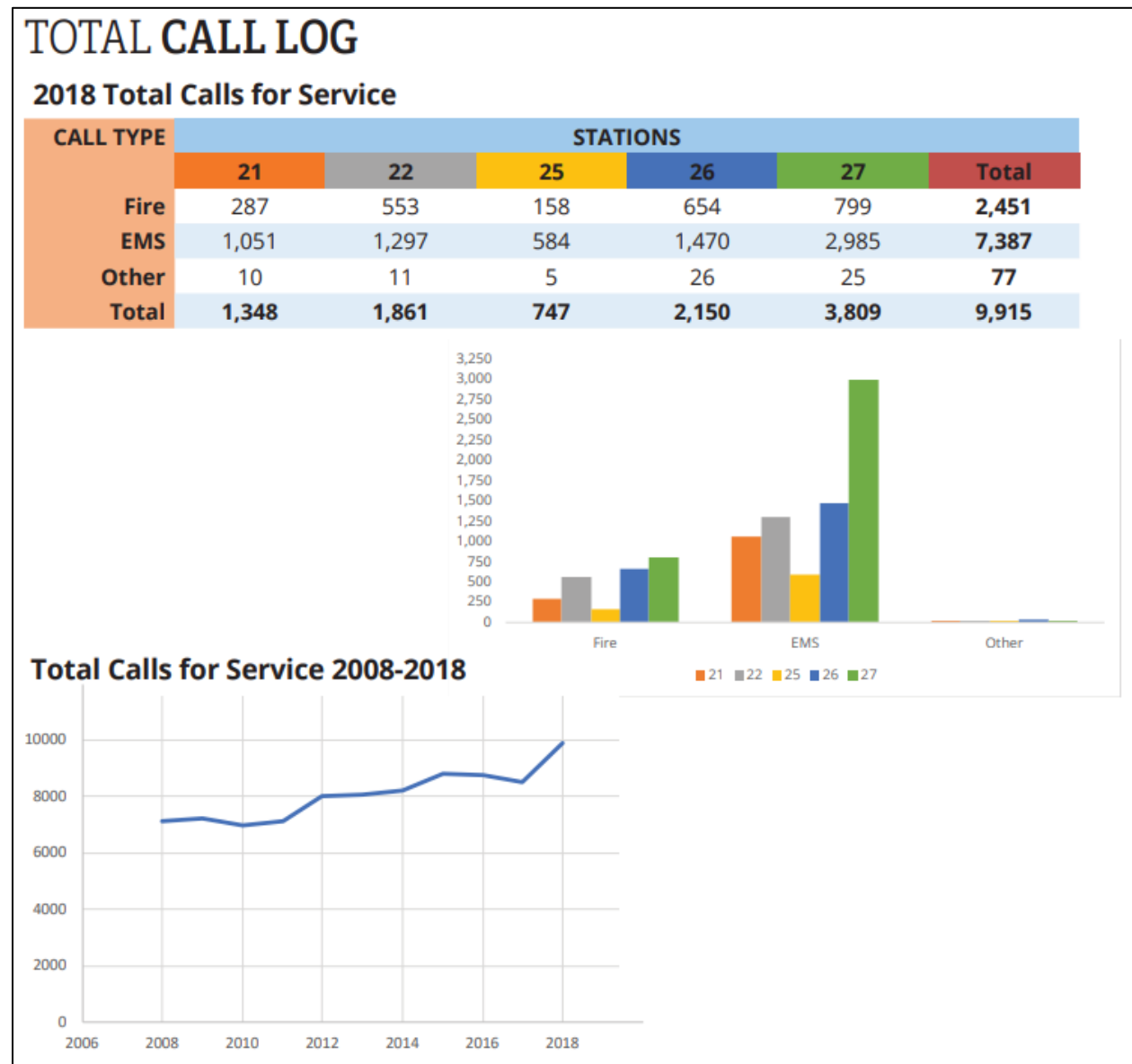
The time analysis that always shows significant variation is response activity by hour of day. Response workload directly correlates with the activity of people, with workload increasing during daytime hours and decreasing during nighttime hours as shown in the following figure. Incident activity is at its highest between 9:00 AM and 9:00 PM.

**Figure 39: Hourly Workload – Study Period**



**3. What is a typical call volume per day in the City? For one station?**

The number of calls for service can vary significantly. Stations that are in high density areas or areas that have populations that generate more calls for service will have a higher call volume. For instance, Station 27 located on NE 132<sup>nd</sup> Street serves a large area, with multi-family housing and a concentration of assisted living facilities and nursing homes. Station 25 located on Finn Hill experiences fewer calls for service. Their service area is large but consists primarily of single-family houses. The chart below shows the number of calls for service for each of the fire stations.



**4. What is the most calls you have ever gotten in a day?**

During severe snow and ice storms, we have had over 100 calls for service in a day.

**5. How many times are there concurrent calls?**

Approximately 30 percent of the time, city wide.

**6. How many fires are there in Kirkland on average?**

We average 40 fires, of varying severity, annually.

**7. How often does the City review response time data?**

Fire Department leadership reports data to the City Council quarterly. The department also reports response data to the State and Federal government annually.

**8. Why is it not a 3-minute response time?**

KFD could establish shorter/quicker responses times. Shorter responses times would drive the need for more fire stations, apparatus and firefighters

**9. What is the coverage for advanced life support in Kirkland? When are they dispatched?**

The City of Kirkland receives paramedic services, also known as Advanced Life Support (ALS), from the Bellevue, Redmond, and Shoreline Fire Departments. In the event of a major incident, Kirkland could also receive paramedic assistance from across the region, including from the City of Seattle and/or South King County. One Redmond paramedic unit, M123, is housed at Evergreen Health Medical Center and is frequently dispatched to calls in Kirkland. However, calls requiring paramedic responses will receive service from the closest available paramedic unit.

**10. Does the City want to have its own ALS**

Under the King County system an agency has to apply. Kirkland has applied in the past but the County has continued to support ALS service into Kirkland through the Redmond Fire Department.

**11. If there is a large fire or emergency do off-duty officers come in to help?**

Generally, we pull in firefighters and officers from nearby departments who are on-duty and ready to respond. If we have an event that requires a high level of firefighters, we draw from Seattle, Snohomish County and South King County. So far, that has supplied us with needed resources. We do have the ability to callback firefighters on overtime in a disaster situation.

**12. Do officers respond to their local station if there is a big emergency even if it is out of their jurisdiction?**

No. But it is a conversation that is currently taking place among fire departments in the region. The State Emergency Operations Center has been discussing that very issue.

**13. Do you frequently experience language barriers when responding to calls for service and how is that handled?  
Does the department have any bilingual staff?**

Most of the time there are family members who can translate for an individual who if not fluent in English. If this is not the case, we have a language translation line that we can call and usually get a translator quickly. We have also tested a language translation app on a smart phone that is specifically built for emergency medicine which holds some promise. It is not a requirement to be bilingual, but we do have some bilingual staff.

**14. When do other cities get called to help with our calls for service?**

Our surrounding jurisdictions will come to help us in three situations.

1. The first is automatic aid. Eastside jurisdictions have agreed to send the closest unit, regardless of where the call originates from. A unit outside of the jurisdiction may be sent because they are closest.
2. The second situation is a variation on the first. When units are assigned to other calls, the next unit is sent. Think about our table top exercise. When Aid 22 was on a call, Bellevue Engine 5 had to handle the second call for service.
3. The third instance would be a significant incident. This could be a fire, a motor vehicle accident or other large incident requiring more resources than the City possess.

**15. How do private aid cars work?**

Private ambulances are utilized by the Kirkland Fire Department when a patient is requesting transport to a hospital outside our transport area, which includes Evergreen and Overlake hospitals. Crews do occasionally transport to other hospitals based on the level of care needed for a patient. We do use private ambulances during busy periods to get Kirkland units back in service to provide coverage for the City. This also includes when units are out of the city for training.

**16. How do 911 centers know what resources to dispatch?**

Each jurisdiction has put together “run cards” into the Computer Aided Dispatch (CAD) system that tells the system what to dispatch depending on the call type. So, a cardiac arrest get one BLS, one ALS, a Medical Services Officer (MSO) and a Fire Engine Company. A confirmed structure fire gets 4 Fire Engines, 2 Ladder Trucks, an Aid Unit, 2 Battalion Chiefs and a Safety Officer.

**17. Is sending one person in an aid car acceptable?**

No, we must send a minimum of two Firefighters on aid cars and three Firefighters on engines and ladder trucks.

**18. Do demographics matter in call volume (age, poverty, etc.)?**

The most impactful demographic for the City of Kirkland is an aging population which increases the number of calls for service due to age-related medical conditions related, falls in the home or calls to assisted living facilities.

**19. Are police ever called to an emergency?**

Yes, police and fire work together often. PD will come when requested by the Fire Department or for some calls such as automobile accidents or drug overdoses.

**20. Are we sending firefighters to wildfires across the state? Or to other states?**

Yes, Kirkland has deployed crews to California and Oregon and across the state of Washington.

**21. Does an alarm trigger an automatic fire call and how does that impact the response from the time of the call to intervention?**

Monitored or automatic fire alarms are routed to a call processing center. The call processing center then calls the appropriate dispatch agency. KFD’s response times starts with the alarm company calls 911.

**22. How many crews are at each station?**

All stations are staffed with one crew of three that cross staffs and engine and aid car or ladder truck and aid car. The exceptions are station 25 with four firefighters, and station 27 with six.

**23. How does the city review the community risk management standards?**

Kirkland has not adopted its own risk reduction program. As a result, we do not have a comprehensive community risk reduction standards specifically for Kirkland. The National Fire Protection Agency (NFPA) does have standards that Kirkland follows. In some cases, the NFPA standards require additional staffing that is not authorized at this time.

**Fire Station Facilities and Equipment**

**1. How are Fire Department vehicles and equipment maintained? Where are vehicles serviced and who performs the work? Is equipment maintenance every contracted out? Where and do you do equipment maintenance?**

Most equipment is maintained by firefighters. If still under warranty, repairs are done by the manufacturer. Each station has a small shop where maintenance is completed. Small engine maintenance is done in house (Chainsaws, Rescue saws, etc.) Technical equipment like the "Jaws of Life" are sent to the manufacturer nearly 100% of the time. So much of the answer depends on the equipment you are referring to. We have a dedicated Fire vehicle mechanic who also works on other City vehicles if time allows. This mechanic does the majority of work. Warranty items are done by the manufacturer.

**2. Does each firefighter have multiple sets of gear?**

Yes. Each firefighter has two set of protective gear. This allows each firefighter to be response ready with a clean set of gear while they are decontaminating, cleaning and drying gear.

**3. Is the water supply for fire sprinklers different than the domestic water supply? Does the City, or could the City experience water allocation issues?**

Fire sprinkler systems are supplied from the domestic water supply. There are some that have large holding tanks, but the tanks are filled from the domestic supply. In the case of a severe water shortage, it is possible that rationing might be an option. For firefighting, we always have the option of drafting water from Lake Washington.

**4. Is the Cross Kirkland Corridor drivable for Fire apparatus? How does the department respond to calls for service on the CKC?**

Yes, there are multiple access points on the CKC for emergency vehicles and it was designed with this use in mind.

**5. Is there only one ladder truck? Will the ladder truck be moving with Fire Station 27? Should there be an additional ladder truck in downtown Kirkland?**

The ladder is generally not the first piece of equipment needed at a fire so a few minute delay has not been problematic. Our neighbors also maintain a single ladder truck which we frequently request on larger fires. The current plan is to move Ladder 27 to the new station when it's built. We are looking at an additional Ladder Truck stationed at Station 22 in Houghton which serves the downtown core.

**6. How many floors up can a ladder truck reach? Is that the determining factor for where standpipes are placed?**

Our Ladder Truck can extend 106 feet from the ground. Optimally, it can be safely operated up to 7-8 floors depending on positioning. Standpipes are determined by the fire code and consider building height.

### **Firefighter Staffing and Training**

#### **24. How many firefighters are EMTs?**

All Kirkland Firefighters, Lieutenants, Captains, and Battalion Chiefs are emergency medical technicians (EMTs).

#### **25. Are you able to find qualified firefighter applicants?**

We have had great success in getting qualified, exceptional candidates for firefighters. We are seeing a slight decrease in numbers of applicants, but it has not had a significant impact on us to date.

#### **26. Can firefighters afford to live in Kirkland?**

This is a difficult question to answer as every individual's situation is unique. For reference, a Firefighter's salary ranges from \$6,167 to \$8,334 per month (2019 rates). The median home price in Kirkland is \$715,000. Source: <https://www.zillow.com/kirkland-wa/home-values/>, and the average apartment rent is \$2,051 (retrieved 11/13/19 from <https://www.rentcafe.com/average-rent-market-trends/us/wa/kirkland/>).

#### **27. What is the training/on-boarding timeline?**

After undergoing an extensive hiring process, which includes multiple panel interviews, medical and psychological exams, fitness assessments, and background checks, newly hired Firefighters attend a 12-week training academy and followed by a 5-week EMT course. Once assigned to a fire station, new Firefighters finish their one-year probationary period with regular evaluations.

#### **28. Are firefighters/EMTs on PERS (Public Employees Retirement System)?**

No. Firefighters and Law Enforcement Officers participate in the state's LEOFF pension system (Law Enforcement Officers' and Firefighters' Plan 2).

#### **29. What is a Kelly Day and who is "Kelly"?**

A Kelly Day is a scheduled day off to ensure that firefighters do not exceed the adopted 48 hour work week. The term "Kelly Day" originated in Chicago in 1936 when then Mayor Edward Kelly gave firefighters a day off for every seven days on duty. Source: <https://ceas.uc.edu/content/dam/aero/docs/fire/FLSA.pdf>

#### **30. Can Kelly Days be banked/traded?**

They can be traded but not banked.

#### **31. Are you on duty if you are out of the city for training?**

Most training takes place when firefighters are on duty and may take place in Kirkland or in one of the adjacent Fire Departments that have training facilities. When firefighters train outside the City limits, other stations in Kirkland and stations in adjacent communities provide coverage within Kirkland.

#### **32. How does the City hire new firefighters?**

We use a testing company called "Public Safety Testing". They administer a written exam and a physical exam and provide the City a list of candidates in order by score. We then conduct two rounds of interviews. High level candidates then go through a background check, medical evaluation, physical exam, physical fitness test

and a psychological exam. Once completed, successful candidates then must go through the Fire recruit academy and complete one year probationary period.

**33. How many people do you hire in a year? How long does a firefighter usually stay with the same city?**

The number of people hired in year is based on employee turnover and the addition of new positions by the City Council. Employee turnover can result from retirements, resignations or from firefighters that have injuries or medical conditions that result in a permanent disability. New positions aside, new hires average four per year. Fire departments in general have low turnover rates and firefighters remain as city or fire district employees until they retire.

**34. Where are battalion chiefs stationed?**

KFD has a Battalion Chief on duty 24/7. KFD's Battalion Chief is housed at Station 26 in North Rose Hill. We also receive Battalion Chiefs from surrounding jurisdictions when needed.

**35. Do you do lateral transfers vs new hires?**

The Kirkland Fire Department has experienced lateral transfers from other departments in the City such as Police. Lateral transfers from other fire departments is not the norm, however the City did bring on six Woodinville Fire and Life Safety firefighters following the annexation in 2011 and the closure of WFLS Station 34 in Kingsgate. Laterals from other departments are more common at the management level to fill positions such as Deputy Chief or Fire Chief.

**36. Can firefighters train on overtime?**

Yes. Much of our classroom/conference type training is done while off duty. In those situations, firefighters are paid overtime to attend. Our "hands on" training and training that involves multiple fire apparatus from multiple jurisdictions training together is generally done while on duty.

**37. Do you train with other cities? Is training standardized across the region?**

Yes. We train often and intentionally with our neighboring jurisdictions. Training is standardized across the region to a great degree. North King County is part of a training consortium that provides regular training to firefighters using the same curriculum, terminology and training officers. The county is currently moving towards consolidation into one central training consortium with satellite campuses throughout the county. This is with the goal of all firefighters in the county sharing the same curriculum, terminology and instructors.

**38. Do you train with the Police?**

Yes. We train with them on active shooter events and they train with us in the use of naroxalone, a drug that helps patients on opioids. In addition, we train together regularly in the Emergency Operations Center where City staff convene in the event of an emergency.

**39. How have changes in the types of calls for service, building types and firefighting equipment changed the type of training needed by firefighters?**

The working environment for firefighting dictates the tactics and tasks used by engine companies. These are different in small single story houses compared to 3-story town houses. Additionally, garden style apartments, where entries are in outdoor corridors, are different than interior hallway apartments. Lastly single story commercial strip buildings call for different tactics than multiple story mixed construction and mixed use commercial buildings. Kirkland has evolved in building types and its firefighters must now be competent in tactics and tasks for all these types of structures.



**40. Where is the recruit school? How does that work?**

Presently the Kirkland Fire Department sends new employees to a regional recruit academy and these new employees train for approximately 13 weeks with other firefighters from our area. After this they go on to a five-week Emergency Medical Technician school and then return to Kirkland for approximately 2 weeks of work with the Kirkland Fire Training Division before being assigned to a company. Recruits have trained at the state fire training facility in North Bend or at the City of Bellevue or Northshore Fire in Kenmore where there are training facilities.

**41. Are firefighter required to have training in psychology?**

There is training for fire investigators regarding arson and the questioning of witnesses, etc. that have a psychology component to them.

**42. Whose job is it to schedule the firefighters/EMTs?**

It is a Deputy Chief's job to assign firefighters to shifts. Once assigned, the shift supervisors – the Battalion Chief, Captains, and Lieutenants – manage the schedule

**43. What's is the percentage of overtime pay compared to total payroll?**

In 2018, the percentage of overtime was 10.1% of total fire operations wages and in 2017 it was 6.3%. The percentage of overtime will vary depending on the number of position vacancies and employee leaves such as family medical leave time.

**44. Are there times when sets don't sleep?**

Yes. A long fire at night can go for 8-10 hours. Additionally, several shorter calls throughout the night can result in the same inability to sleep.

**The Built Environment – Fire Prevention Bureau**

**1. Does the City have its own set of standards separate from the State Fire code? Does the City require sprinkler systems in single family residences?**

Kirkland's fire code generally mirrors the State Fire Code, although local jurisdictions can impose more stringent requirements than the state. For instance, Kirkland requires new single-family residential units over 5,000 square feet to install a sprinkler system, but that is not a requirement in the State Fire Code.

**2. Does the fire code limit on how tall buildings can be in Kirkland?**

The Kirkland Zoning Code determines where taller buildings can be located and how tall they can be. The Growth Management Act encourages cities to ensure that adequate services are available to serve new development including fire and emergency medical services.

**3. Do you work with surrounding cities to implement similar fire codes?**

The cities in King County do work together to keep as much consistency in local fire codes as possible. This makes it simpler for architects and builders to understand and follow code requirements.

**4. Has your inspection capacity kept up with demand? Is there a backlog of inspections?**

There is currently a backlog of inspections. The Fire Prevention Bureau has not been able to keep up with the current demand for service but the department is increasing the number of inspections each year.

**5. Does the Fire Prevention Bureau fine people or impose other penalties for not following the fire code?**

We have the ability to fine people, but our general policy is to try and work with a building owner to gain compliance without the use of fines which is generally successful.

**6. Does the Fire Bureau have a process to alert the community of hazardous materials they may be exposed to?**

Yes. Notifications would most likely come through the Office of Emergency Management and be publicized by the City Communications team if there was an incident involving hazardous materials that may put the public at risk.

**7. Does the City do regular fire sprinkler inspections in duplexes and triplexes?**

Inspections are typically done by a private company hired by the building owners. Fire Code inspectors verify, through inspection, that the system has been inspected and certified by a certified inspection firm annually.

**8. When outside fire investigation help is required, does Kirkland pay for that?**

Generally no, but there could be circumstances where we are short-staffed or have multiple fire investigations occurring simultaneously where we would ask for a neighboring fire investigator. In that situation we would pay the neighboring jurisdiction for their time.

**9. Does the cause of every fire have to be determined?**

Yes.

**10. What are the requirements to be a qualified fire inspector? Do you have to be a firefighter to be an inspector? Are inspectors different than firefighters?**

While all firefighters have a basic level of fire inspection training, to become a certified fire inspector requires training and the passing of a test. In some jurisdictions, that is not the case. In Kirkland, all fire inspectors come from the ranks of our firefighters. Inspectors have to maintain their certifications and training as firefighters while they are inspectors.

**11. Can inspectors support operations if needed?**

Yes.

**12. How many staff are in the Fire Prevention Bureau?**

There are seven full-time staff in the Bureau -- one Fire Marshal, one Assistant Fire Marshal, four Inspectors and one Administrative Support position.

**13. Are separate software systems running the logs of the fire alarm systems?**

Yes. Private monitoring agencies monitor and log fire alarm systems. They are not connected to the Fire Department or to Fire Dispatch.

**14. How quickly can a building be occupied after it has had a fire?**

Reoccupation depends on the severity of the fire. Most cases it is a minimum of 24 hours. This can span into multiple days or months if rebuilding the home is necessary.

**15. What is the processing time for fire inspection permits?**

Most fire permits take 2 – 4 weeks to review and issue. Large projects take longer depending on size and complexity.

**16. How Is the Bureau involved in the pre-application process and design review?**

Fire Prevention is involved in the earliest pre-application meetings. We meet with applicants along with Planning, Building, and Public Works to help inform applicants and answer any questions they have prior to submitting a permit application.

**17. How many homes in Kirkland have sprinklers?**

Depending upon when a building was constructed, different rules regarding sprinklers were in place. For instance, there are older multi-family residences that were not required to install sprinklers, whereas current codes require all multi-family dwellings to have sprinklers. Likewise, all single-family houses larger than 5,000 square feet, or not meeting access and fire-flow requirements, are required to have sprinklers, however this requirement was not instituted until 2004. As new homes have gotten larger in recent years, more new homes are getting fire sprinklers. Approximately 40% of new single-family homes built today will be required to have fire sprinklers.

**COMMUNITY SAFETY ADVISORY GROUP  
ANSWERS TO QUESTIONS FROM DECEMBER 5, 2019**

**1. Why is the median home value used instead of the average?**

The median home value is used by the King County Assessor because it more accurately describes the middle of a data set that has outliers. Since there is an uneven distribution of property values, the average home value would be affected by very expensive home prices, while the median would remain a more accurate representation of home values. The median home price of \$730,000 is provided by the King County Assessor. Data is not readily available to calculate an accurate average, however it is likely the average would be higher given the high price of new homes.

**2. Clarify how to reduce Washington Survey and Ratings Bureau (WSRB) rating: what steps reduce the rating and by how much? At what point does it impact homeowner's insurance and by how much?**

WSRB evaluates all Washington communities for their fire protection/suppression capabilities. WSRB assigns each community a Protection Class of 1 through 10, where 1 indicates exemplary fire protection capabilities, and 10 indicates the capabilities, if any, are insufficient for insurance rating credit.

It is sometimes thought that a Protection Class 4 community has a "better" fire department than a Protection Class 5 community, but that is not what the classifications mean. In fact, the fire department itself makes up only 40% of WSRB's evaluation. Another 35% of the evaluation focuses on the public or private water supplies available to fight fires. Other factors include the capabilities of the 911 emergency communications/dispatch center (9%) and community fire prevention activities (16%). More than half of a community's classification may be based on capabilities that are not under the direct control of the fire department.

Once WSRB has determined a community's classification, insurance companies are notified and may begin using the classification for buildings in the community. However, when a community is graded Class 5, for example, this does not mean that every home or business is given that classification. Protection Classifications for individual buildings are dependent on how close a building is to a fire hydrant and a responding fire station and are modified from the classification of the community accordingly.

When a community improves its classification, there is often a corresponding savings in a property owner's insurance premium. However, insurance companies are not required to follow WSRB's recommendations, and WSRB does not supervise or set insurance premiums. Anyone who wants to know how a change or potential

change in their community's classification could affect their insurance premiums should contact their insurance agent.

**3. How much annual revenue does each element of the levy/bond produce?**

Bond = \$4,100,000

Levy = \$5,200,000

**4. How do you quantify the added value of a PIO – i.e. how many kitchen fires were saved?**

How do agencies that prevent or mitigate disasters communicate their value? One of the greatest challenges to public safety agencies is articulating and communicating their value in a quantifiable manner. In order to put a value on prevented and mitigated events, agencies must measure what did not happen. The standard strategy of public safety agencies is to measure and report the associated losses of events, which demonstrates the magnitude of the event more than it illuminates the effectiveness of the agencies tasked to prevent or mitigate events.

Source: <https://www.hsaj.org/articles/9307>

**5. How long does it take for a private ambulance to arrive on average?**

For 2019 (through November):

Transports	446
AVG Time to Arrive	13:05
90th Percentile	21:23
80th Percentile	17:56

The average response time for a private ambulance in 2019 (through November) is 13 minutes 5 seconds. However, the national standard measures response with a 90% percentile. Essentially asking, for the top fastest 90% of responses, how long did it take you? This eliminates most of the odd situations that might occur on a response...bad traffic, crews busy training, etc.

For 2019, private ambulances made it to a scene in Kirkland 90% of the time within 21 minutes 23 seconds. We do have a contract with a private ambulance company who has agreed to make it to a scene within 20 minutes of receiving the request 90% of the time or they pay the department a penalty. Our contract began April 1, 2019, and since then there's been an average of \$1,050 dollars in fees each month. This adds incentive to them to keep a staffed ambulance in or near Kirkland for quicker responses.

**6. Why can't you just make developers pay for cost of inspectors? Or charge per inspection?**

Developers do pay a fee for new construction inspections. It is not 100% cost recovery as this would be cost prohibitive. Other jurisdictions, most recently Bellevue, looked at 100% cost recovery and decided against it for a number of reasons. In addition, we conduct fire and life safety inspections on occupancies that have been completed. While these are not as time consuming as new construction, there are substantially more of them so our need for inspectors increased.

**7. Calculate the percentage of shifts a BC aide is needed to respond to a major event.**

	2015	2016	2017	2018
Total Calls	8,674	8,678	8,391	9,915
Battalion Chief	588	639	550	562
BC + Aide	128	133	100	67

<b>Total Calls w/ BC Aide</b>	<b>21.7%</b>	<b>20.8%</b>	<b>18.1%</b>	<b>11.9%</b>
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**8. Explain the added value of an additional firefighter/EMT. What you get for adding two?**

Currently, cross staffed stations are staffed with 3 firefighter/EMTs. When an emergency response is dispatched, the crew of three takes the fire engine if it's a fire related emergency or takes the aid unit if it's an emergency medical related call. That leaves the station unstaffed for any subsequent alarm that may be dispatched while they are handling the first call. Increasing staff by one, to four firefighters, allows the crew to be divided for emergency medical calls. Emergency medical calls make up 75% of our total call volume. In this case, when a medical call is dispatched, two firefighter/EMTs would respond in the aid unit leaving two additional firefighter/EMTs available to respond to a subsequent EMS call in the fire engine. However, they would not be able to respond to a fire call as fire engines can only respond with a minimum of 3 firefighters.

Two additional firefighter/EMTs allow for the same scenario above, but when the first two firefighter/EMTs respond to the emergency medical call, three firefighter/EMTs are now still at the fire station and could respond to either a subsequent EMS call or a fire call. This staffing level removes the need to cross staff units and provides for a dedicated aid unit to respond to medical emergencies and a staffed fire engine which can respond to either medical or fire emergencies.

**9. Why aren't we doing a strategic plan now to catch those things that are more relevantly needed today?**

The City has accomplished 90% of the recommendations outlined in the 2012 strategic plan. The remaining big ticket items such as station renovations, relocating station 27, all remaining WSRB recommendations would still be at the top of the priority list even if we conducted a strategic plan today.

**10. What were the voting margins on recent ballot measures, and what type of election they were voted during? What type of measure was more successful?**

<b>Ballot Measure</b>	<b>When</b>	<b>Type</b>	<b>Bond or Levy?</b>	<b>Amount</b>	<b>Years Obligated</b>	<b>Voter Approved?</b>	<b>Yes Votes</b>
Kirkland - Prop 1 Street Maintenance Levy	2012 Nov	General	Levy	20.0¢	Perm	Yes	54.8%
Kirkland - Prop 2 Parks Maintenance Levy	2012 Nov	General	Levy	16.0¢	Perm	Yes	57.87%
LWSD Prop 3 Bond \$755,000,000	2014 Feb	Special	Bond	53.0¢	4	Yes	57.79%
Redmond Prop 1 Public Safety & Transportation	2015 Aug	Special	Levy	28.0¢	6	No	46.93%
King County Best Start for Kids	2015 Nov	General	Levy	14.0¢	6	Yes	56.24%
Bellevue Prop 1 Fire Facilities	2016 Nov	General	Bond	12.5¢	20	Yes	56.98%
King County Veterans and Human Services	2017 Nov	General	Levy	10.0¢	6	Yes	68.59%
LWSD Prop 3	2018 Feb	Special	Bond	\$ 1.31	4	No	44.76%
Bothell - Safe & Secure	2018 Nov	General	Bond	26.0¢	20	Yes	64.97%
Bothell - Safe & Secure	2018 Nov	General	Levy	44.0¢	12	Yes	61.24%

Evergreen Hospital Prop 1 Increase	2019 April	Special	Bond	18.0¢	20	No	41.52%
Evergreen Hospital Prop 1 Extension	2019 Aug	Primary	Bond	29.0¢	20	No	41.49%
King County Parks, Recreation, Trails & Open Space	2019 Aug	Primary	Levy	18.0¢	6	Yes	70.21%
King County Medic One	2019 Nov	General	Levy	26.5¢	6	Yes	80.79%

### 11. What does the commercial developer pay per capita vs the residential homeowner?

The conventional wisdom is that residential uses never pay for themselves, because the cost of providing services to residents (new firefighting and police services, infrastructure, etc.) is high, and revenue is limited by the 1% constitutional cap on property taxes (i.e., with some exceptions, the property tax levied on a residence can be no more than 1% of its market value). As a result, many local governments pursue commercial growth (particularly auto dealerships and big box retailers), which generate many times more tax revenue than the cost of providing services.

The revenues generated by new growth/cost of providing services picture is more complicated, and in the past, fiscal impact studies of new residential uses have been hampered by some faulty assumptions, including that residential uses don't generate sales tax revenue, artificially low expenditure costs for commercial uses (some of which tend to generate a lot of traffic and associated infrastructure costs), and overlooked locational efficiencies (e.g., the fact that some service providers have excess capacity – meaning that you might not need to add a new police station or library to serve new infill development in your community). The locational considerations are important – generally, compact development within already-developed areas will have a more balanced accounting of revenues and expenditures, while sprawling commercial or residential development that requires, for instance, new fire stations to meet level of service standards, will generate more expenditures than revenues. But generally commercial properties generate more revenue than the cost to provide local services while residential properties usually generate less.

## COMMUNITY SAFETY ADVISORY GROUP ANSWERS TO QUESTIONS FROM DECEMBER 19, 2019

### TRAINING

#### 1. Are there any zoning issues or constraints for training props?

The Fire Station 24 site is subject to development standards and other regulations per zoning designation BC1 based on the proposed use as a "Government Facility." In simple non-planner terms, this means that the zoning code identifies a number of parameters that relate to the design and use of the site – these include such things as structure height, setbacks from property lines, lot coverage, landscape buffers, etc. Although temporary in nature, training props/facilities will likely be treated like any other structure on the site (i.e. they're considered buildings and regulated as such).

#### 2. What is the difference between training props and training buildings?

Training props are physical reconstructions of the outside environment for Firefighter/EMTs to train on with different scenarios. They can range from townhouses to commercial buildings. Often these structures have the

ability to be set on fire multiple times without compromising the structure of the building. The training building provides a central area for classroom style training and a meeting location for the community to use as well.

**3. What is the impact of training facilities/props on neighbors?**

The impact should be minimal. We utilized radio transmissions so there should be no loud voices. We don't use sirens for training drills. Apparatus will be in gear and running so there might be sounds of engines running which are not loud. And we seldom train after dark so there should be minimal disruption in the evening.

**4. How many training officers does the Kirkland Fire Department have now?**

We have one Training Battalion Chief and one Training Captain.

**5. Does an in-city training facility reduce number of firefighter/EMTs required?**

The short answer is no. It doesn't reduce the number of firefighter/EMTs, but it does reduce response times by keeping vehicles and firefighters in Kirkland rather than training in Bellevue, Kenmore and Renton.

**6. Is there any potential to share the cost of training facilities and props? Can we rent them to other jurisdictions, or coordinate to have each city purchase a prop?**

We already do some cost sharing of training facilities and have potential for even greater savings to the training budget with a training prop and/or training building in the future. There are offsetting costs for providing training officers and/or training facilities.

**EMS**

**7. Is the dedicated aid car expensive because of staffing?**

Yes, the City already has an aid car in reserve that could be used. The cost comes from having to hire 10 additional firefighter/EMTs to fill the two positions.

**8. Does a dedicated 12-hour transport reduce the number of firefighter/EMTs required?**

Potentially. Because it is only staffed for 12 hours a day, it could be staffed 7 days a week with 4 additional firefighters rather than the 10 additional required for a dedicated aid unit. In contrast, the dedicated aid unit would be staffed 24 hrs. per day.

**9. Can a private ambulance service be used?**

Private Ambulances are currently utilized when Kirkland Fire units are very busy or for long transports into Seattle. Private ambulances transports about 450-500 patients per year. Currently there are not enough ambulances in the region to rely solely on Ambulances. In addition, they only provide transportation. They are not cross trained as firefighters as our EMT's are.

**10. Dedicated aid car vs 12-hour transport?**

A dedicated Aid Unit requires the hiring of 10 firefighters to fully staff 24 hours a day/seven days a week. A dedicated Aid Unit also has cross trained firefighters on it who could respond to fire calls in the event they were not on aid calls. A 12-hour peak transport unit works from 8am to 8pm with 2 firefighter EMT's on it. They would respond to incidents in Kirkland where transport to the hospital was likely and allow the Firefighters from a particular station to become available at the scene for a subsequent call instead of remaining out of service during transport, transition at the hospital and travel back to their fire station.

**11. Which stations would a 12-hour hospital transport most benefit?**



It would most benefit any of the stations that didn't have a dedicated Aid Unit. Currently we have no dedicated Aid Units. But depending on recommendations from ComSAG and decisions by City Council, we could have one in the north and one in the south (Stations 27 and Station 22). If that occurred, Stations 21, 25 and 26 would receive the greatest benefit.

#### **WASHINGTON STANDARDS & RATING BUREAU**

##### **12. What is the impact on insurance costs of adding an additional ladder truck?**

Hard to give a dollar value. A second Ladder Truck reduces the overall penalty points received by WSRB. As our score decreases, the cost of insurance in the City decreases. But this is not tagged to one recommendation. There are many recommendations that contribute to decreasing our overall rating.

##### **13. How many times was second ladder truck needed?**

We have two ladder trucks dispatched on every structure fire call and on every technical rescue. Currently the second ladder responds from a neighboring jurisdiction.

In 2018, 69 calls required the ladder truck

In 2017, 78 calls required the ladder truck

However, there are really two separate questions here. The first is how many times the actual "ladder" of the second Ladder Truck was utilized. Not all structure fires require elevated hose streams or rescue of occupants. This can be due to the fact that the building is not tall enough to require a ladder or that Fire Department notification was early in the fire stage and crews were able to arrive quickly and stop the fire before the use of ladders was required. The second question is about utilizing a "Ladder Company" (the personnel and skills of the firefighter/EMTs assigned to the Ladder Truck). Those who respond in the Ladder Truck have specialized technical rescue training and certifications to provide advanced search and rescue and building ventilation tactics to assist in life safety and fire extinguishment. The Ladder Company would be used on most, if not all of the confirmed structure fires in some capacity whether it includes using the "ladder" or not.

##### **14. Where would the second ladder truck be located?**

Most likely it would be located at Station 22 in Houghton. This would provide ladder coverage to Kirkland Urban and the downtown core.

##### **15. How can we improve WSRB rating?**

There are a number of improvements and recommendations from WSRB that would improve our ratings. The most deficiency points were received in Fire Prevention and the biggest impact would be seen by investments in prevention activities.

##### **16. What is the estimated impact on WSRB score for – PIO, Inspector, 12-hour transport?**

Difficult to quantify each of these. The largest deficiency was in Fire Prevention so a PIO and additional inspectors would have the greatest impact on the WSRB scoring. The 12-hour transport was recommended in the Strategic Plan so it would have minimal impact on the WSRB rating but a large impact on response times.

##### **17. Who does PIO duties now?**

Usually the on-scene commander or a designee communicates with the media at an emergency scene. The risk reduction and public education piece is done as resources are available, but this is rare.

#### **TAX**

**18. Property tax is confusing. Is there any way the city can get a larger percentage?**

The authority to levy property taxes is granted through state and local laws to public entities eligible to use property tax a funding source. Each jurisdiction has its own levy that is established by its own governing body (e.g. city councils, school boards, county commissioners, hospital commissioners, etc.). Each governing body is accountable to their own populations that reside with their taxing district which almost always have different boundaries and different voters. As a result, a city can't directly impact another jurisdiction's levy which is the purview of the elected body and/or the voters.

The property tax "pie" is a representation of the relative amount of property taxes paid by a property in a jurisdiction. This pie will look different in each city depending on which jurisdictions have overlapping boundaries with other taxing jurisdictions and which taxing jurisdictions levy taxes in a city as part of their overall levy. For a city to receive a "larger piece of the pie" the city would need to raise taxes at a faster rate than the other jurisdictions in the pie. This would generally occur through a voted debt issue or levy lid lift. Otherwise, most other jurisdictions are subject to the same limits as the city. In addition to the one percent limit, there is a maximum aggregate rate that is established by the Washington State Constitution

In summary, each jurisdiction establishes their own levies within the limits and rules established by state law. The resulting pie reflects those decisions once they have been made. As you have learned, many factors can affect a jurisdictions levy rate and tax revenue including changes in assessed value, new construction, voter-approved measures and city council decisions.

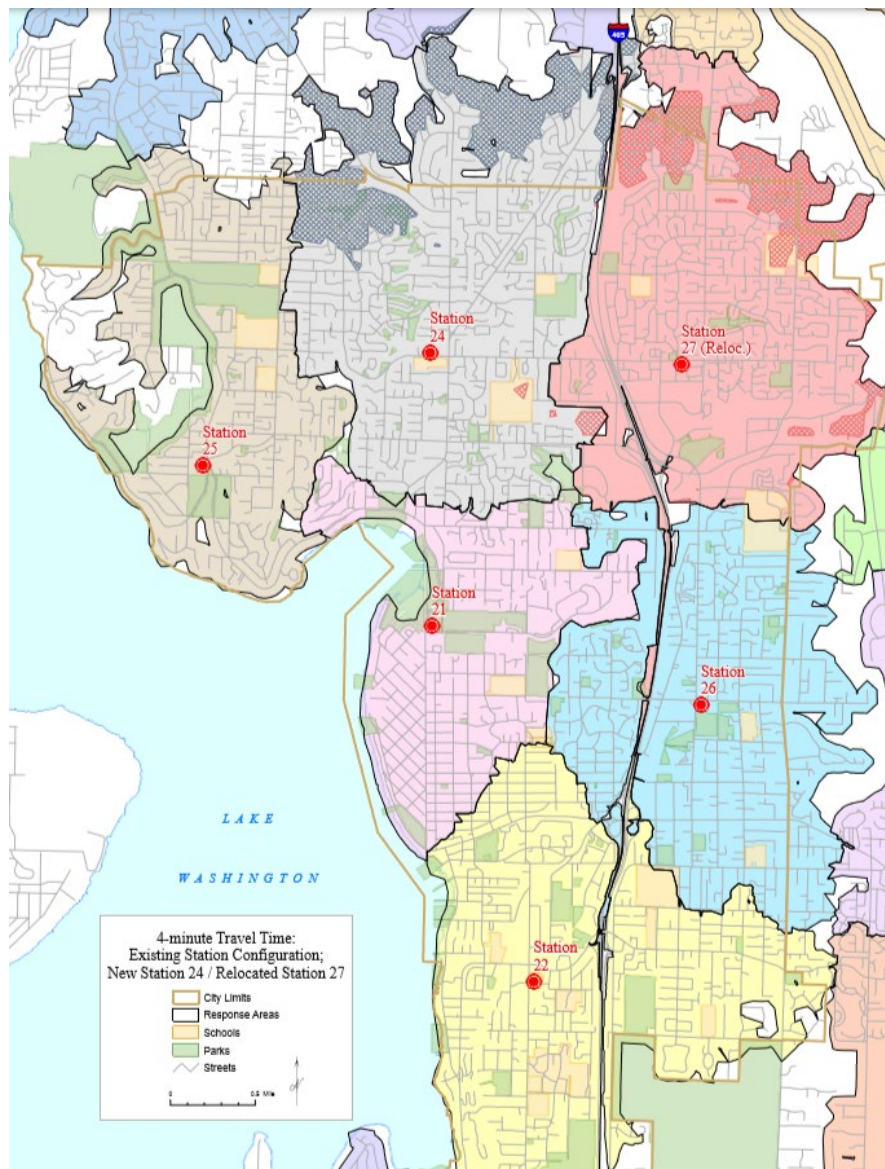
**19. Why do property taxes go to the hospital? Is it a business?**

Evergreen Health is a public hospital. Public Hospital Districts are authorized by RCW 70.44 to provide funding for capital and operating costs. Hospital Districts are through a petition or vote of the voters residing within the boundaries of the district. Hospital District is subject to similar limitations as other local jurisdictions (e.g. capital bond measures must be passed by 60% and validated by the number of voters who voted in the last general election). The boundaries of a public hospital district are not required to be contiguous with city boundaries. Although Public Hospital Districts largely provide patient services through private physicians and groups such as Virginia Mason and Swedish, they are subject to certain rules by virtue of using public funds.

**STATION 27**

**20. Map of impact of moving station 27?**

A larger map also included in additional binder materials.



The impact of relocating station 27 is the areas shaded in darker red. These areas are now accessible within the four-minute response time.

## 21. Is an update to 27 necessary?

In any outcome, station 27 was built in the early 1970s and is nearing the end of its useful life. The station will need renovations to accommodate firefighter health and safety upgrades, a new roof, and general updates to bring the building up to code. The City has purchased a site to build a new station 27 east of I-405, in which case station 27 would be renovated as a logistics center, and still require some of the mentioned updates.

## STATIONS 21 & 26

## 22. What is the current seismic endurance of station 21/26?

Both Stations 21 and 26 were built in the early 1990s. It wasn't until 1996 that the idea of 'critical infrastructure' standards were introduced. After September 11, 2001, the Patriot Act was passed, strengthening requirements. Finally, after Hurricane Katrina in 2005, we saw another leap in the construction standards of fire stations. All stations with the exception of newly renovated station 25 need to be renovated to the higher standards.

**23. Which station is most susceptible to natural disasters? 21 or 26?**

Both are built close to wetlands. It would be difficult to say without asking a geotechnical engineer to evaluate.

**MISCELLANEOUS**

**24. What is the difference between capital and operational?**

Operating expenses represent the day-to-day costs of providing services to the public. Major categories of operating expenditures include employee wage and benefits, supplies, services (such as professional service contracts and insurance), intergovernmental payments made for services provided by other governments and small capital investments such as the purchase of computers. The operating budget pays for the annual cost of services. Operating expenses are paid for from a variety of income (revenue) sources that are received every year such as taxes, charges for services and permits.

Capital expenditures represent large investments in buildings, large equipment and infrastructure improvements for roads, utility systems and parks. Capital improvements may be financed on a “pay as you go” basis from revenue sources available for capital purposes. “Pay as you go” financing means the city pays cash for the improvements from capital reserves or available capital revenue sources. Some large capital improvements are financed by issuing debt where the City borrows money to spread the cost over a long period of time. Debt-financed improvements usually have a longer life span so that current and future residents who will benefit from the improvement such as a new park help pay for it. Debt financing is similar to a mortgage where a home purchaser borrows money to purchase a house. The cost is spread over a long period of time to make purchase of a house affordable. As a homeowner, you make monthly mortgage payments to pay off the loan.

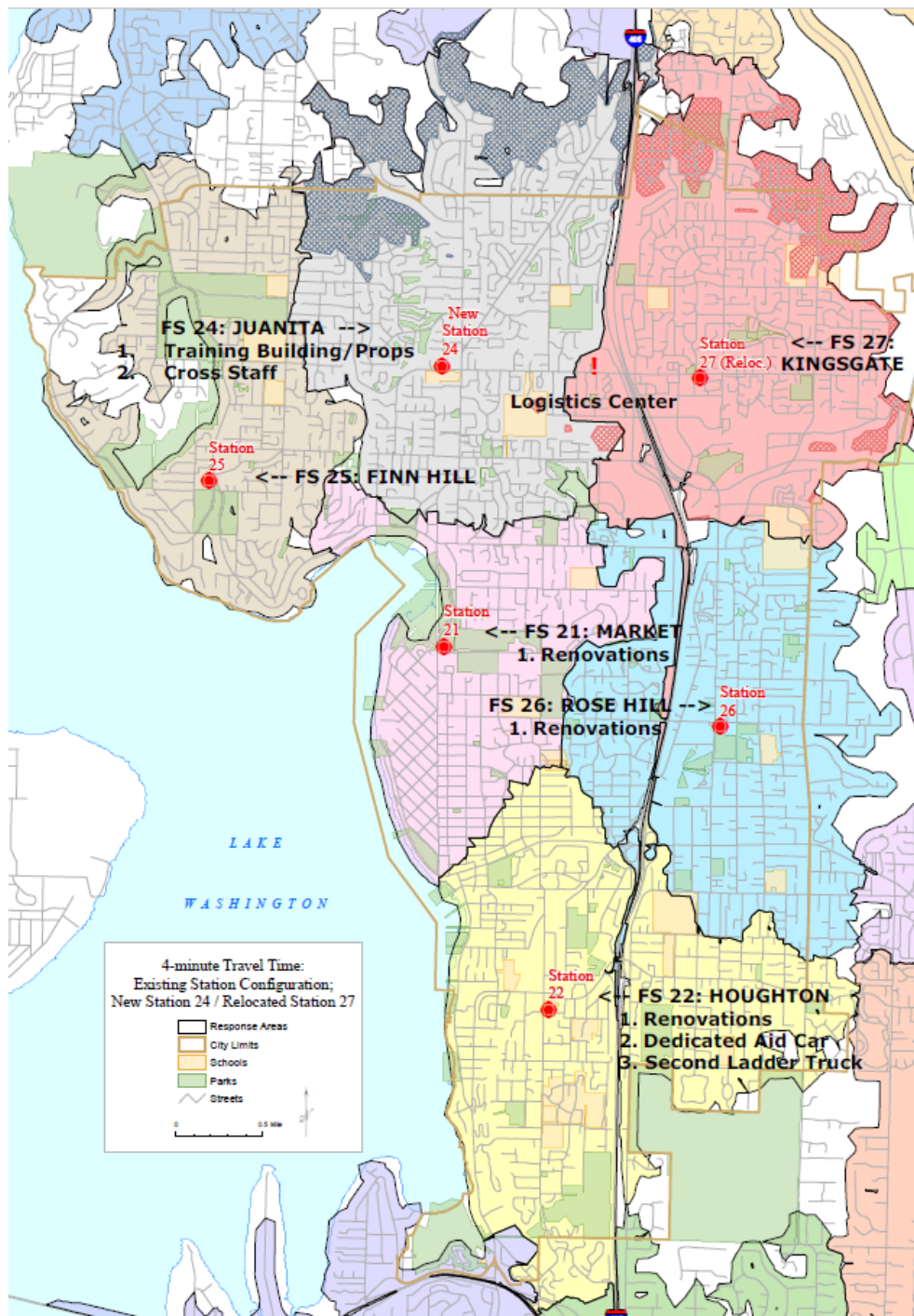
The City’s operating costs are like your own ongoing living expense such as food, utilities and insurance. Your monthly income should be sufficient to cover your ongoing living expense and your mortgage payment. The City’s annual income, much like yours, needs to be sufficient to cover everyday expenses.

When voters approve a tax measure for capital investments, they agree to tax themselves through an increase in the property tax levy to provide a revenue stream (annual income) to pay off the debt. Again, this makes large projects more affordable for the community and allows for current and future residents to help pay for the improvements. Once the debt is paid off, the extra property tax levy is ended.

For the fire ballot measure projects, the operating projects are primarily to pay for the wages and benefits of new employees to provide enhanced services. The fire capital projects are for investments in building and equipment.

**25. Indicate location/neighborhood of stations on card and where each project is located.**

A larger map also included in your additional binder materials.



## 26. What metrics will be used to assess success and effectiveness of Fire prevention inspector - asked

It is hard to quantify “fires prevented” as an outcome of fire-prevention activities. So, we measure inputs as an analog for outcomes. Fire Prevention has been working on completing a risk assessment for the entire City. This involves cataloging all of the buildings and occupancies within those buildings. Once the risk assessment is complete, we will prioritize higher risk occupancies for more frequent inspections, while all occupancies will be inspected at least annually. This is based on best practices in fire prevention and guidance from the Washington Survey and Ratings Bureau for scoring fire prevention operations. Inputs we are currently tracking:

- New construction permits issued / completed (Fire)
- New construction inspections (Fire)

- Fire operational permits issued / completed
- Existing-building inspection completed by Operations staff
- Existing-building inspections completed by Fire Prevention staff
- Code enforcement cases opened / completed (Fire)
- Fire investigation cases completed

This is a partial list of our internal measures, but covers the core of our operations. As we develop capacity to deliver additional public information / education programs, we will develop appropriate measures to track those efforts.

**27. Is the Battalion Aide on a 48-hour shift?**

Yes. Battalion Chief Aides are on the same duty sequence or shift as all other firefighters.

**28. What is the percent of calls that occur when firefighters/EMT are on a call – concurrent calls.**

Based on 2018 data:

- Station 21 – occurs 19.40% of the time
- Station 22 – occurs 14.78% of the time
- Station 25 – occurs 10.61% of the time
- Station 26 – occurs 16.38% of the time
- Station 27 – occurs 23.89% of the time

**29. How much does an additional firefighter impact response times?**

An additional firefighter as outlined in the ComSAG tiers would provide a fourth firefighter at a station that currently has three. This allows for two firefighters to respond on an EMS call (which are 75% of our call types) and leave two behind with the fire engine to respond to a subsequent EMS call. Response times are reduced for subsequent calls because an available EMS crew would respond from the closest station and not have to be called from a neighboring station or neighboring jurisdiction.

At their February 11, 2020 Meeting ComSAG voted on the placement of each individual element into their final three categories of "Definitely Include," "For Council Consideration," and "Not This Ballot Measure." All elements began in either the "Definitely Include" or "For Council Consideration" categories.

Depending on which category the element was placed in on the December 19, 2019 top of mind exercise and the January 29, 2020 anonymous polling exercise the group was asked questions corresponding to that element's category. For example, for elements that began in the "Definitely Include" category (blue cells or lines 3-10) the group was asked if they wanted to move the element down to the "For Council Consideration Category." For elements in the "For Council Consideration" Category (green cells or lines 11-26) the group was first asked if they wanted to move the element up. If that resulted in a majority vote of "no," the group was then asked if the element should stay in its current category. For the "Not This Ballot Measure" category of elements the group was asked if they wanted to move anything

Element	Question	Yes	No
Station 27: Design, build, and relocate east of I-405	Keep in the Definitely Include Category?	95%	5%
Station 22: Renovate & Modernize		95%	5%
Dedicated Aid Car @ Station 22		82%	18%
Cross Staff Station 24		86%	14%
Station 21: Renovate & Modernize		100%	0%
Station 26: Renovate & Modernize		95%	5%
Purchase 2nd Ladder Truck		76%	24%
Additional Firefighter/EMT		86%	14%
12 Hour EMS Transport	Move up to the Definitely Include Category?	55%	45%
	Keep in the For Council Consideration Category?	90%	10%
Additional Fire Inspector	Move up to the Definitely Include Category?	41%	59%
	Keep in the For Council Consideration Category?	73%	27%
Additional Training Officer	Move up to the Definitely Include Category?	14%	86%
	Keep in the For Council Consideration Category?	43%	57%
Logistics Center	Move up to the Definitely Include Category?	45%	55%
	Keep in the For Council Consideration Category?	68%	32%
Public Information Officer	Move up to the Definitely Include Category?	14%	86%
	Keep in the For Council Consideration Category?	45%	55%
Training Building B	Move up to the Definitely Include Category?	55%	45%
	Keep in the For Council Consideration Category?	77%	23%
Training Props B	Move up to the Definitely Include Category?	43%	57%
	Keep in the For Council Consideration Category?	68%	32%
Additional Battalion Chief Aide	Move up to the Definitely Include Category?	36%	64%
	Keep in the For Council Consideration Category?	55%	45%
Revisited: 12 Hour EMS Transport	Move up to the Definitely Include Category?	71%	29%
Revisited: Training Building B	Move up to the Definitely Include Category?	59%	41%





# CITY OF KIRKLAND FIRE DEPARTMENT



## 2018 ANNUAL REPORT

OUR CITY ▪ OUR PEOPLE ▪ OUR DUTY ▪ OUR COMMITMENT TO SERVE

# MESSAGE FROM THE CHIEF



Chief **Joseph Sanford**





**Since 1890**, the Kirkland Fire Department has been blessed with strong, consistent support from our residents, businesses and elected leaders. Our community has remained committed to making investments in providing top notch fire engines, aid units, protective equipment, facilities and training to ensure that our mission can be carried out quickly and safely. Since those austere beginnings, the department has added Hazardous Materials, Technical Rescue, Emergency Medical Services, Emergency Management and Water Rescue to our list of services. The Fire Department is truly an “all hazards” response team. Our community is safer today because of the cumulative dedication and foresight of these and other decisions both past and present. Today, 106 firefighters wear a patch on their shoulder that reminds them of the faith and trust that has been bestowed upon each one of us.

In 2018, with City Council and community support, we completed renovation of aging Fire Station 25 on Finn Hill, and are acquiring land and designing a new Fire Station on 100th Avenue NE and NE 132nd Street to serve North Kirkland. Station construction will begin in 2020.

In 2019, we will be seeking community involvement and guidance for a possible 2020 ballot measure. The Council and community will be looking at what renovations are needed for the Rose Hill, Forbes Creek and Houghton Fire Stations and the replacement of aging Fire Station 27 in Totem Lake. When complete, these and other system enhancements will help ensure that the Kirkland Fire Department can withstand a natural disaster and maintain a deployment model that effectively serves all portions of our growing community.

This consistent support ensures that the dedicated professionals of the Kirkland Fire Department can continue to provide the professional services we have for over 100 years. Whether assigned to work in Suppression, Administrative Support, Emergency Medical Services, Training or the Bureau of Fire Prevention; on a fire truck or within the Office of Emergency Management, the men and women of the Kirkland Fire Department want to thank you for that support. We couldn't do what we do without it.

- **Joseph Sanford**, Fire Chief, Kirkland Fire Dept.

# KFD MISSION

The City of Kirkland Fire Department has existed within the state of Washington since 1890. The Kirkland Fire Department is legally established as a department through RCW 35A.01.01 and RCW 35A.11.020 and Kirkland Municipal Code 3.16.037.



## MISSION STATEMENT

**OUR CITY \* OUR PEOPLE \* OUR DUTY  
OUR COMMITMENT TO SERVE**

## KFD VISION

The Kirkland Fire Department is creating a safer community as a respected partner in our region and an innovative leader in the nation.

## VALUES

- **SUPPORTIVE** – Working together as a team toward a common goal.
- **PROFESSIONAL** – Upholding industry standards and honoring the expectations of a professional firefighter both on and off the job.
- **INTEGRITY** – Maintaining consistency between actions and words at all times.
- **RESPECTFUL** – Treating others with understanding and compassion. Acknowledging there is strength in diversity.
- **INNOVATIVE** – Providing a supportive work environment that encourages and empowers improvement through creativity.
- **TRUSTWORTHY** – Being fair, truthful, competent and honorable; Confident that the actions of others are fair, truthful, competent and honorable.

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# DEPARTMENT INFORMATION



# OVERVIEW

## History:

The City of Kirkland Fire Department has existed within the State of Washington since 1890.

The first fire chief was hired in 1928 and the first paid firefighters for the City were hired in 1969. Our fire chief is currently Chief Joe Sanford. As director of the fire department, Chief Sanford oversees the offices of the Deputy Chief of Administration, the Deputy Chief of Operations, and the City Emergency Manager and Administrative Services.

The City of Kirkland Fire Department provided fire service to King County Fire Protection District #41 by a contract agreement (Kirkland Municipal Code 3.24.010) from November 1969 to June 2011. In 2011 the City of Kirkland annexed all of Fire District 41 and a small portion of Fire Districts 34 and 36.

## Services Provided:

The services provided to the community by the Fire Department include:

- Fire and emergency medical response (all response personnel are certified EMTs)
- Rescue operations including vehicle extrication and technical rescues including confined space, trench, structural collapse, and rope rescue
- Special operations including urban-wildland interface firefighting and surface water rescue
- Automatic response to surrounding jurisdictions
- Fire Prevention and permits
- Fire Investigation
- City Emergency Management
- Water Rescue

The Regional services provided to the community in partnership with neighboring Fire Departments include:

- Emergency dispatch and 911 services provided by North East King County Regional Public Safety Communication Agency (NORCOM) [www.norcom.org](http://www.norcom.org).
- Hazardous Materials Response provided to the community by the Eastside HazMat Team. The Kirkland Fire Department is a member of this team and has 8 response personnel trained to the technical response level.
- Advanced life support + Medic response provided to Kirkland residents primarily by the City of Redmond Fire Department. The medic program is part of the King County Medic One Program.
- Training Division, part of the East Metro Training Group (EMTG). The EMTG is composed of the Kirkland, Northshore, Mercer Island, Bothell, Shoreline, Woodenville, Bellevue, Eastside Fire & Rescue and Redmond Fire Departments. Kirkland is one of the founding member agencies which make up this 700 plus member training group.



# STAFFING PROFILE (2018)

## Work Schedule

Emergency response staffing is done on a three shift platoon rotation. The schedule is a 48/96 rotation. Employees work 48 hours then are off 96 hours, working a total of a 48 hour work week.

## Personnel

- Emergency response personnel – 92 Line personnel (not including Training, Admin or Prevention)
- Every day minimum on-duty strength – 20
- Prevention personnel – 6
- Training Officers – 2
- Emergency Medical Services Officer – 1
- Non-Uniformed (Civilian) personnel – 5
- City Emergency Management – 2
- Command staff – 3

## Minimum Staffing for Emergency Response

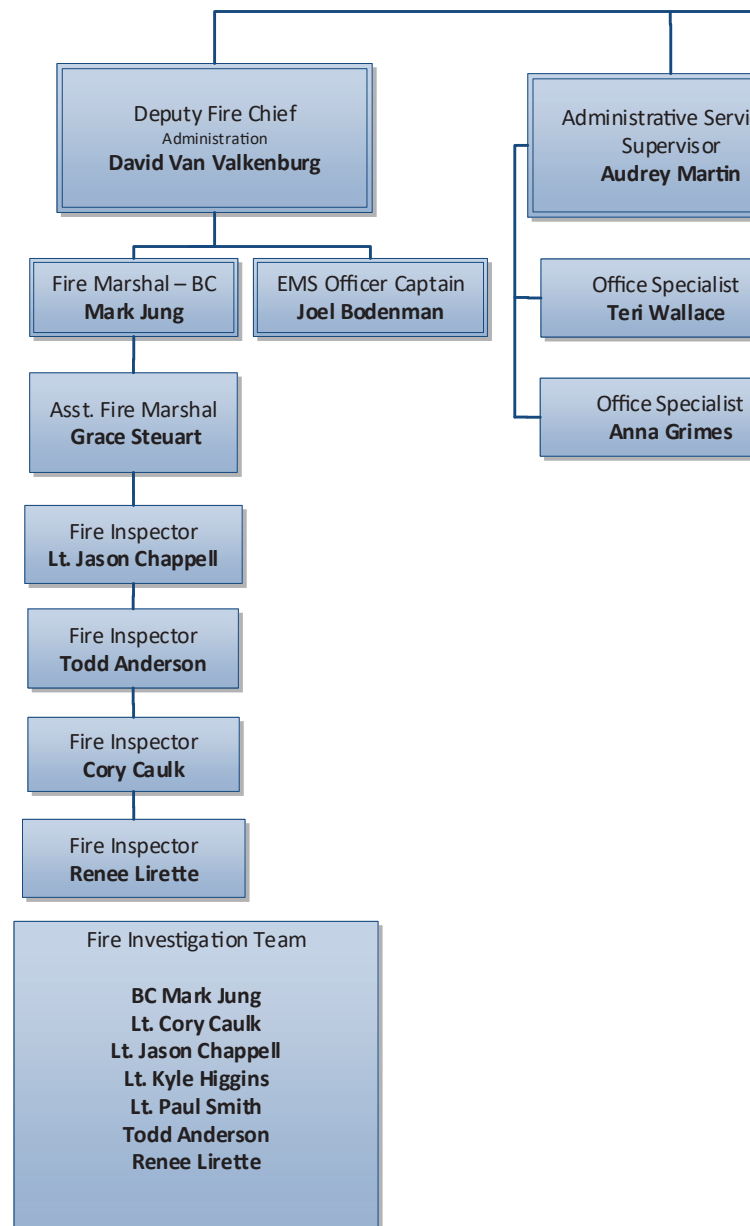
- Engine company = 3 crew members
- Aid car = 2 EMT crew members
- Ladder company = 3 crew members
- Battalion Chief = 1

## Fire Station Staffing

Stations 21, 22, 25, 26, 27 are cross-staffed stations. A cross-staffed station has more than one type of apparatus, usually an aid car and fire engine. The on-duty Firefighters respond in which-ever unit is dispatched. As an example, if Aid 26 is dispatched for an aid response, the engine is unavailable for subsequent responses until the aid car returns to the station.

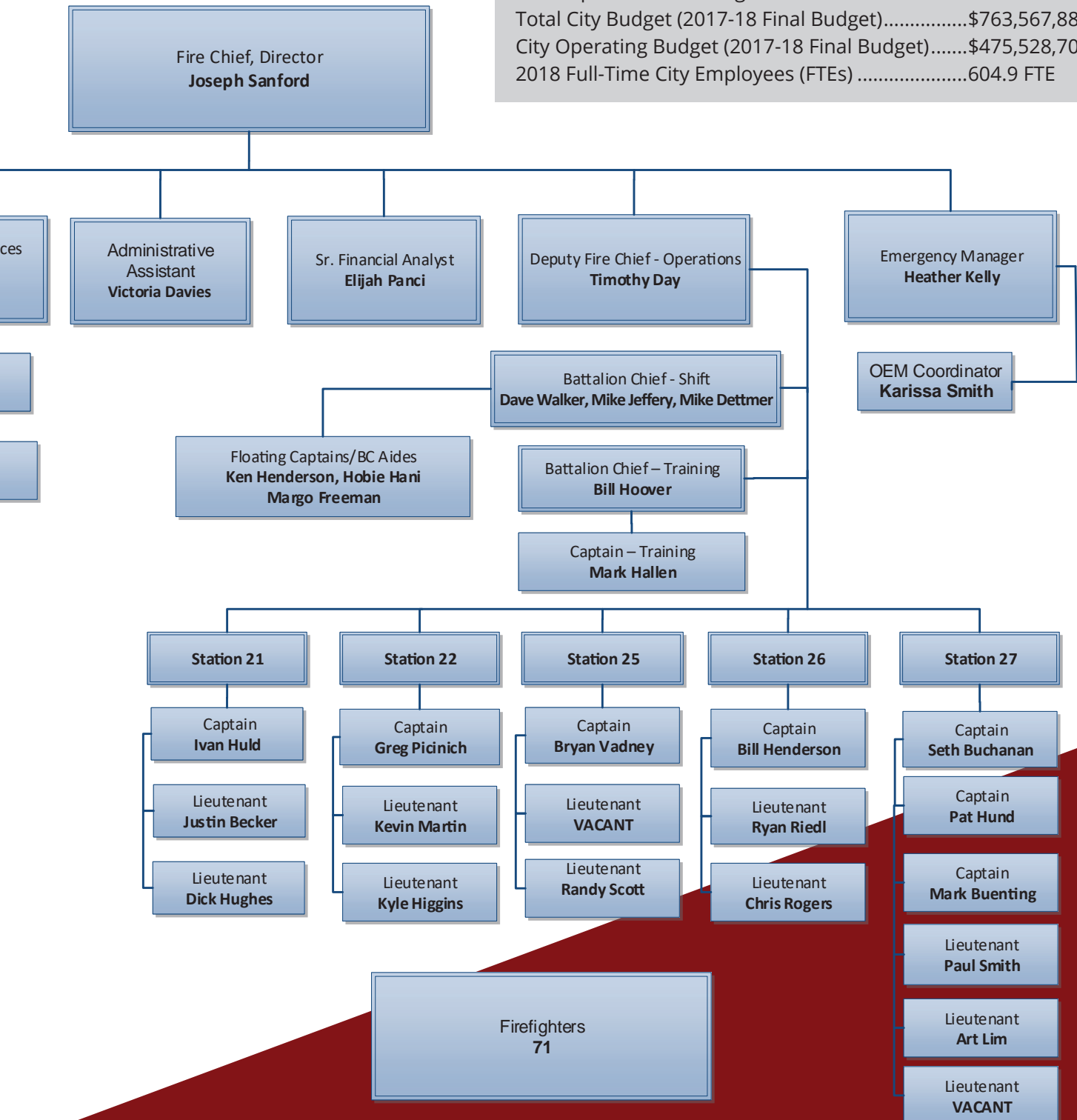
- Forbes Creek Station 21 = 3 crew members; 1 aid car, 1 engine
- Houghton Station 22 = 3 crew members; 1 aid car, 1 engine
- Finn Hill Station 25 = 4 crew members; 1 aid car, 1 engine
- Rose Hill Station 26 = 3 crew members; 1 Battalion Chief, 1 Battalion Aide Captain; 1 aid car, 1 engine, 1 Battalion Chief car
- Totem Lake Station 27 = 6 crew members; 2 aid cars, 1 engine, 1 ladder

## City of Kirkland Fire Department Organizational Chart March 2019



# KIRKLAND AT A GLANCE

Founded .....	1888
Incorporated.....	1905
Consolidated with Town of Houghton .....	1968
Annexation of Finn Hill, N Juanita & Kingsgate .....	June 1, 2011
2018 Population .....	86,772
Land Area .....	17.81 sq. miles
Fire Department Grading Class.....	4
Total City Budget (2017-18 Final Budget).....	\$763,567,886
City Operating Budget (2017-18 Final Budget).....	\$475,528,708
2018 Full-Time City Employees (FTEs) .....	604.9 FTE



# STATION INFORMATION

## Fire Department Headquarters

Kirkland City Hall

- Mailing address: 123 5th Avenue, Kirkland, WA 98033
- Dept. Main-line: **425-587-3650**
- Fire Services Website: [www.kirklandwa.gov/depart/Fire\\_Services.htm](http://www.kirklandwa.gov/depart/Fire_Services.htm)
- Office of Emergency Management Website: [www.kirklandwa.gov/depart/Fire\\_Services/KirklandEM.htm](http://www.kirklandwa.gov/depart/Fire_Services/KirklandEM.htm)

### STATION 21 – Forbes Creek

Location: 9816 Forbes Creek Drive

Date Built: 1997 (8,541 sq. ft.)

#### APPARATUS:

- **Aid 21** 2010 Ford Road Rescue Aid Vehicle 4x4 (front line)
- **Engine 21** 2005 Spartan / H&W Pumper (front line)
- **Engine 29** 1999 Spartan Pumper (reserve)

### STATION 22 – Houghton

Location: 6602 108th Ave. NE

Date Built: 1980 (9,071 sq. ft.)

#### APPARATUS:

- **Aid 22** 2014 Ford F450 Road Rescue (front line)
- **Engine 22** 2015 Spartan / EVR Pumper (front line)
- **Air Unit 21** 2006 Spartan / H&W Special Ops Unit (front line)
- **Engine 28** 2003 Spartan / H&W Pumper (reserve)
- **1926 American LaFrance Pumper** (antique)

### STATION 25 – Finn Hill

Location: 12033 76th PL NE

Date Built: 1973 (6,488 sq. ft.)

Renovated: 2018 (7,382 sq. ft.)

#### APPARATUS:

- **Aid 25** 2016 Ford Road Rescue Aid Vehicle 4x4 (front line)
- **Engine 25** 2003 Spartan / H&W Pumper (front line)

### STATION 26 – North Rose Hill

Location: 9930 124th Ave NE

Date Built: 1994 (9,795 sq. ft.)

#### APPARATUS

- **Aid 26** 2014 Ford Road Rescue Aid Vehicle (front line)
- **Engine 26** 2013 Spartan Pumper (front line)
- **Battalion 21** 2008 Chevrolet Suburban (front line)
- **Aid 28** 2008 Ford Road Rescue 4x4 (reserve)
- **2000** Ford Road Rescue Aid Vehicle (reserve)

### STATION 27 – Totem Lake

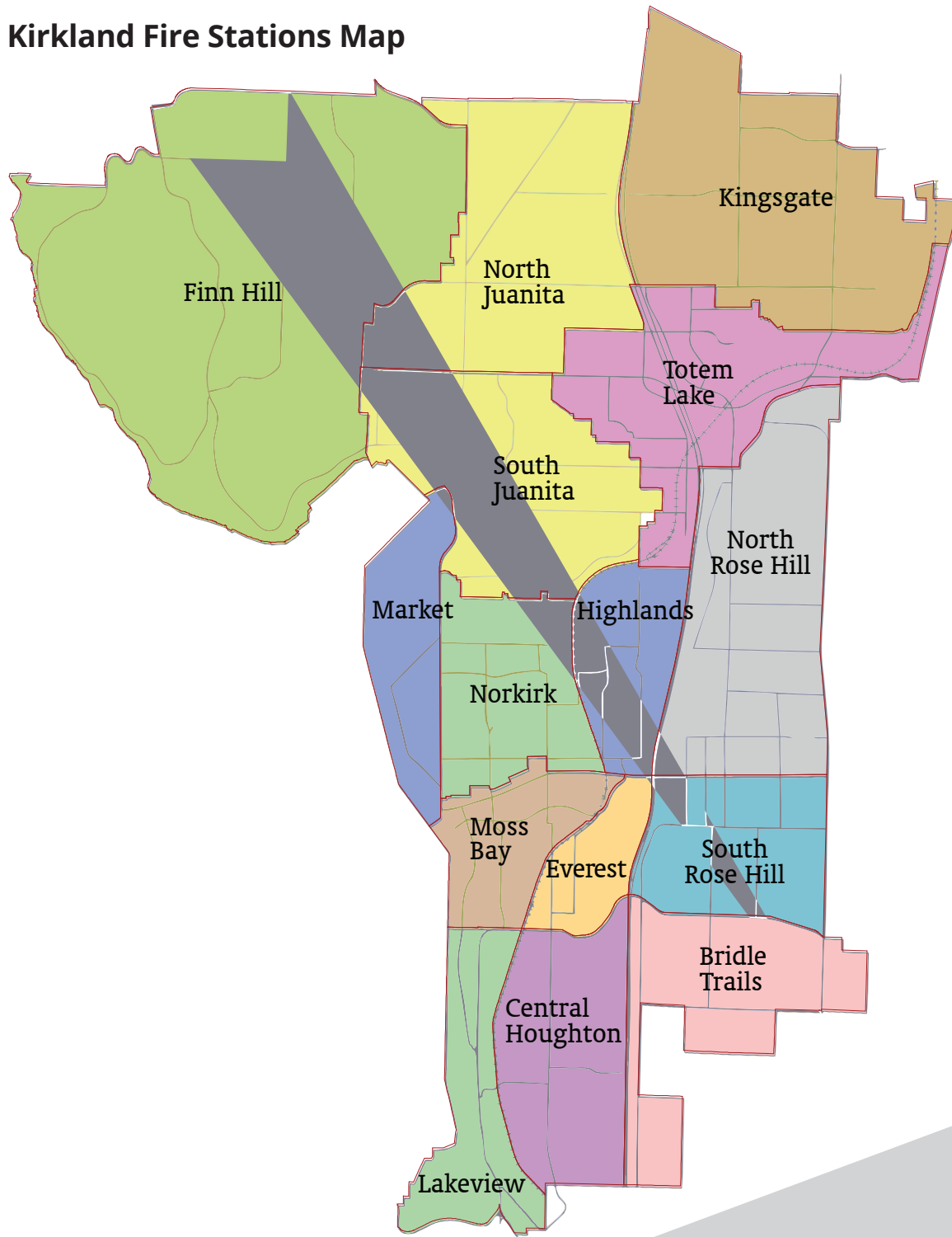
Location: 11210 NE 132nd St.

Date Built: 1974 (8,159 sq. ft.)

#### APPARATUS:

- **Aid 27** 2016 Ford Road Rescue Aid Vehicle 4x4 (front line)
- **Aid 29** 2012 Ford Road Rescue Aid Vehicle (front line)
- **Engine 27** 2010 Spartan / H&W Pumper (front line)
- **Ladder 27** 2016 Spartan / Crimson Aerial TDA (front line)

## Kirkland Fire Stations Map



# 2018 FIRE DEPARTMENT BUDGET

## EXPENDITURES:

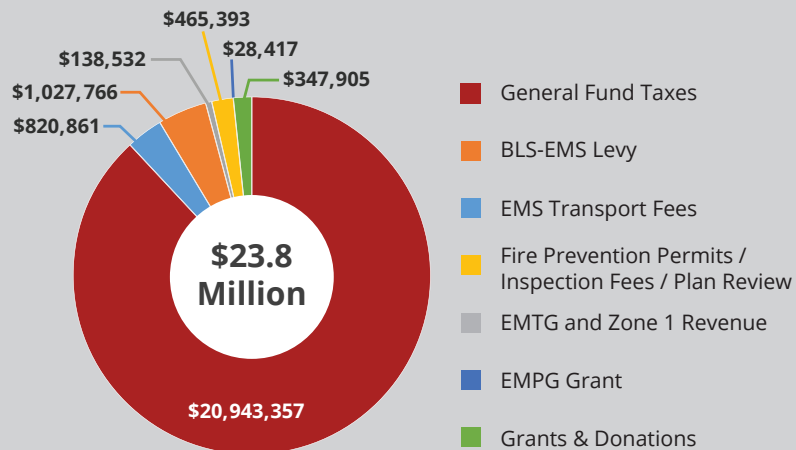
Department	Total	Personnel <sup>1</sup>	Internal Charges <sup>2</sup>	Other <sup>3</sup>
Fire Operations	\$19,743,672	\$16,373,213	\$2,392,877	\$977,583
Training	\$719,073	\$617,176	\$47,739	\$54,158
Administration	\$1,662,852	\$1,176,652	\$250,983	\$235,218
Fire Prevention	\$1,172,180	\$967,562	\$93,398	\$111,220
Office of Emergency Management (OEM)	\$474,454	\$306,940	\$29,235	\$138,279
<b>TOTAL</b>	<b>\$23,772,231</b>	<b>\$19,441,543</b>	<b>\$2,814,231</b>	<b>\$1,516,457</b>

1. Personnel includes: benefits, overtime, hourly wages, uniforms, and protective equipment

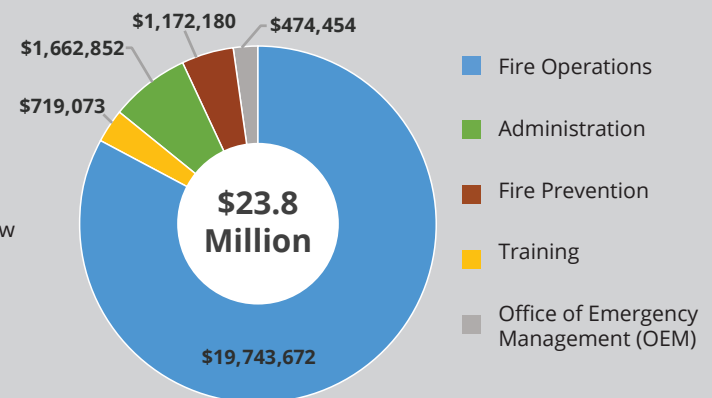
2. Internal Charges includes: Fleet, Information Technology, liability insurance and Facility charges

3. Other includes: safety gear, medical supplies, tools and supplies for fire stations and apparatus, office supplies, professional services/contracts, and all supplies in training, prevention, and administration

### 2018 Actual Revenues



### 2018 Actual Expenditures



### 2018 FIRE DEPARTMENT REVENUES:

	Actuals
EMS Transport Fees	\$820,861
BLS-EMS Levy	\$1,027,766
EMTG and Zone 1 Revenue	\$138,532
Fire Prevention Permits/Inspection Fees/Plan Review	\$465,393
EMPG Grant	\$28,417
Grants & Donations	\$347,905
General Fund Taxes	\$20,943,357
<b>TOTAL</b>	<b>\$23,772,231</b>

## Basic Life Support (BLS) Transport User Fee Program

The BLS Transport User Fee Program was established to create a sustainable revenue source to support essential emergency medical services. Revenue from the BLS transport user fee has helped cover a portion of the cost of providing emergency medical service to the Kirkland community.

The user fees are currently used to maintain service levels; in the future, additional revenue from fees may be used to improve service, reduce response times, and provide greater EMS resources to the community.

## 2018 TRANSPORTS

**TRANSPORT FEES: \$820,861**

**TOTAL REVENUE: \$2,828,874**

Resident 1812 76%

Non-Resident 519 22%

-----  
City Employee at Work + 48 2%

# 2379

**TRANSPORTS BILLED**

# 65

**TRANSPORTS NOT BILLED  
(out of jurisdiction)**

# 2444

**TOTAL # OF TRANSPORTS:**



# RECOGNITION AND SERVICE

The Kirkland Fire Department recognizes our employees for their years of service to our community. The following members have reached important milestones in their careers.

## YEARS OF SERVICE:

Hobart Hani	25	Jeff Childs	15
Ivan Huld	20	Brent Anderson	15
Shawn McDougall	20	Ryan Riedl	15
Jason Pierce	15	Dustin Smith	15
Eric Peterson	15		

## 2018 PROMOTIONS:

**Emergency Manager:** 6/16/18 Heather Kelly

**Captain:** 9/16/18 Joel Bodenman

**Lieutenant:** 9/16/18 Kevin Martin 11/8/18 Ryan Riedl

## 2018 RETIREMENTS:

**Ed Ulrich** - Fire Inspector, April 2018, after **40 years** of service

**Keith Adams** - Captain, May 2018, after **37 years** of service

**Nels Petersen** - Firefighter, May 2018, after **26 years** of service

**Helen Ahrens-Byington** - Deputy Chief, October 2018, after **25 years** of service

**Troy McKinney** - Firefighter, October 2018, after **29 years** of service

**Dave Walker** - Battalion Chief, November 2018, after **29 years** of service

**Greg Rogers** - Firefighter, August 2018, after **26 years** of service

## Graduating Class 7:

1/10/18 Corey Hall

## Graduating Class 8:

9/1/18 Nicholas Cameron

9/1/18 Andrew Mroska

9/1/18 Tyler Farrar

9/1/18 Glenn Shackatano





## 2018 AT A GLANCE





# EMERGENCY RESPONSE



## OPERATIONS OVERVIEW

### **Kirkland Fire's Operations Division**

is responsible for ensuring that our people, equipment, and training support the safe and effective response to 911 calls. To achieve this, a minimum of 20 Firefighter/Emergency Medical Technicians are available to respond from five fire stations located throughout the City of Kirkland. This local response capability is enhanced by formal mutual aid agreements with our regional public safety partners.

The Kirkland Fire Department (KFD) is part of King County Zone 1, one of three fire zones defined in King County's Comprehensive Emergency Management Plan (the other two fire zones include Zone 3, which encompasses communities in south King County, and Zone 5 which encompasses the City of Seattle). In addition to training together, Zone 1 agencies work seamlessly across municipal boundaries to provide service to the region's citizens. This cooperation is supported through our interaction with NORCOM, the 911 dispatch center for Zone 1 located in Bellevue.

Calls for emergency medical services (EMS) continued to account for the largest percentage of KFD emergency responses in 2018. In fact, 74% of all emergency responses were for medical aid. Our EMS capabilities are enhanced by King County's Medic One paramedic providers in Redmond and supported by Shoreline and Bellevue. Advanced Life Support (ALS) is provided by the King County Medic One. In addition to EMS, Kirkland Fire maintains "all-hazards" response capabilities that match the risks in our community, including fire suppression, technical rescue disciplines such as high angle rope rescue; confined space, trench, motor vehicle, and collapse rescue; hazardous materials response; and water rescue.

In 2018, Kirkland enhanced our wildland fire response capability by training dozens of firefighters in this specialized skillset.

# TRAINING OVERVIEW

The Kirkland Fire Department's Training Division is staffed by a Battalion Chief, a Captain, and an Office Specialist. KFD Training is responsible for assessing department training needs, coordinating instructional activities with other divisions, and then developing, scheduling, and delivering needed training. In doing so, KFD supports training in multiple disciplines including fire suppression, emergency medical services, technical rescue, auto extrication, wildland firefighting, and hazardous materials mitigation. KFD uses regional best practices to guide our training as well as industry standards and laws including the Code of Federal Regulations, Washington Administrative Code, and the National Fire Protection Agency standards.

In 2018, KFD's Training Division implemented a novel training program to meet the needs of our newest firefighters. This apprenticeship-style training program is conducted during the first four years of employment. In 2018 nine firefighters participated in this training; in 2019 we are anticipating 18. The focus of this training is to develop and prepare these newer firefighters to meet the challenges posed by an ever-evolving community and profession.

As part of our broader training program, Kirkland participates in the East Metro Training Group, or EMTG. EMTG is a regional training consortium comprised of eight fire departments. The goal of this regional group is to find efficiencies in the development and delivery of training and, in the process, promote interoperability amongst neighboring agencies. Together, these eight departments – which include Kirkland, Bellevue, Bothell, Mercer Island, Northshore, Redmond, Shoreline, and Woodinville – participate in periodic group training sessions and coordinate twice-yearly recruit academies. In addition to working with our neighbors via EMTG, Kirkland Fire is continually seeking opportunities to collaborate with other fire departments throughout the region.

The rapid growth of the City of Kirkland presents numerous training opportunities for the fire department. Novel building design, along with new construction materials and methods, and

increasing population density have required our training staff to expand our training curriculum and delivery methods. Kirkland's City Council has been enormously supportive of these efforts by approving funding for initiatives that support the department's evolving training needs. These initiatives include funding for a modular training facility at one of our fire stations as well as enhanced Incident Command training tools. We are also working with our regional partners to fully implement a sophisticated learning management system that will improve the quality of online training and documentation.

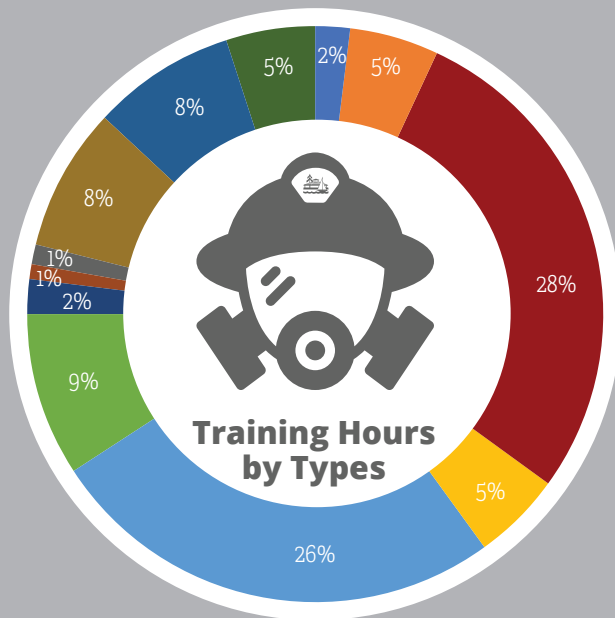
In addition to coordinating training activities for the KFD, the Battalion Chief assigned to the Training Division also fills the role of department Health and Safety Officer. In this role, the BC chairs the department's Safety Committee. This committee reviews all accidents and near-misses to identify areas for improvement in policy, training, technique, and/or design. The overall goal of our safety program is to minimize the chance of accident or injury. Additionally, the Safety Officer is dispatched to significant incidents when crews are working in dangerous situations.





# ADDITIONAL TRAINING HIGHLIGHTS

## TRAINING FACTS



- City Procedures (2%)
- Driver Engineer (5%)
- Emergency Medical Services (28%)
- Fire Ground Operations (5%)
- Firefighter Suppression (26%)
- Hazardous Materials (9%)
- Human Resources (2%)
- Incident Command Training (1%)
- Miscellaneous (1%)
- Professional Development (8%)
- Safety (8%)
- Technical Rescue (5%)

**2018 TOTAL  
TRAINING HOURS**

**5,560**

- Participated in EMTG regional multi-company operations (MCO) drills
- Provided program oversight for regional technical and water rescue training programs
- Participated in "Active Shooter" training with regional fire and police departments.
- Scheduled hearing tests, flu shots, and TB Quantiferon Gold Testing (Blood Draws)
- Fire Officer Academy
- Driver Operator Academy





# WILDLAND 2018



## WILDLAND 2018

At the start of 2018, the City of Kirkland restored funding for the department wildland firefighting program. The program was temporarily suspended during the economic downturn. Kirkland firefighters completed 60 hours of training to earn their "red cards". Training for red cards includes classroom sessions on fire behavior, communications, and fire line safety. Firefighters also complete a required "pack test". The pack test consists of completing a four-mile course, with 45 pounds of protective equipment and wildland gear, in 45 minutes. As part of their training, crews participated in hands-on training days in Kirkland and Pierce County.

The department deployed resources in support of wildland fires in Washington, Oregon and California. Kirkland firefighters were sent to the Mendocino Complex fire in California, the Maple fire on the Olympic Peninsula, the Klondike and Terwilliger fires in Oregon, and the Boyd's fire on the Washington/Idaho border. Expenses associated with the deployments, personnel costs, fuel and equipment costs, housing and meals are reimbursed by Federal and State agencies.

Kirkland Firefighters gained valuable experience during their deployments. Crews work within a large multi-agency, unified Incident Command System. All personnel were able to begin the initial training program for higher levels of certification in the wildland system. Teams were exposed to the orientation, safety and operational needs of wildland firefighting.



*You  
have  
made  
a  
difference.  
Happy  
Holidays!  
-Emma*

*Merry Christmas and thank  
you so much for your service  
to others. God's blessings to  
you all. Sherry*

*Thank you for coming & helping  
to fight the fires in Nor Cal  
this past summer. You are  
our heroes. Merry Christmas!  
Kendal  
(Redding, CA)*

*Thank you for all your hard  
work! Merry Christmas!  
-Alex*

*Merry Everything*

*Merry Christmas  
and thank you for  
everything you do!  
Tiffany*



# TECHNICAL RESCUE

## TECHNICAL RESCUE 2018

Since the inception of the Technical Rescue Operations Group in 1999, Kirkland Fire Department has been the lead agency. The group was formed by an Inter Local Agreement (ILA) to coordinate resources and responses between the nine fire departments of Kirkland, Bothell, Duvall, Eastside, Northshore, Shoreline, Woodinville, Snoqualmie, and Bellevue in North East King County. Battalion Chief Bill Hoover has been the training and coordination lead for the group since 2016.

The Technical Rescue Operations Group coordinates the instruction and scheduling of training in each of the following disciplines: Rope Rescue; Confined Space Rescue; Trench Rescue; Structural Collapse Rescue; and Vehicle & Machinery Rescue, all of which have been provided to the residents of Kirkland for decades.

Classes are held at various locations on the Eastside and attended by firefighters from as far away as Alaska and Montana. Each discipline requires a 40-hour class that is both physically and mentally challenging.

In addition to the initial training, all rescue technicians attend annual refresher training in each level of certification, which is conducted to meet the requirements of the Washington State Administrative Code and the National Fire



Protection Agency recommendations. Refresher training entails 4 to 6 hours of ongoing training each year.

Kirkland Fire has 32 technicians who respond to calls for service. Although rescue technicians are spread throughout the city, technicians primarily serve as the crew of Ladder 27, responding from the Totem Lake Station. Also housed at this station is "Collapse 27," a trailer-based tool and equipment cache that is specifically suited for structural collapse response due to earthquakes, explosions, or other physical damage to a structure that necessitates an emergency response.





## EMS 2018

Kirkland Fire Department Firefighter/Emergency Medical Technicians (EMTs) deliver Emergency Medical Services (EMS) to the residents of Kirkland. KFD firefighters are cross trained as Washington State Emergency Medical Technicians. In addition to responding to Basic Life Support (BLS) calls, such as a fractured leg, Kirkland Firefighters/EMS deliver advanced care techniques. Cardio Pulmonary Resuscitation (CPR); automatic defibrillation; oxygen therapy; and the administration of Narcan or Epinephrine are all essential skills performed by Kirkland FF/EMTs.

Supported by King County Emergency Medical Services (KCEMS) and the countywide Medic One Levy, Kirkland Fire provides Advanced Life Support (ALS) medical care in partnership with Redmond Fire Department. Paramedics from RFD are the primary ALS providers within the department's response area, and our secondary ALS providers are Shoreline and Bellevue.

Transporting patients to area hospitals is a core service of Kirkland Fire Department. Once patients are stabilized by Firefighter/EMTs and Paramedics, and further medical attention is needed, patients are transported by either Paramedics or by Kirkland Fire aid units. Patients requiring further medical care are transported by private ambulance during peak call times. Patients may also be transported by private ambulance when requesting transport to hospitals outside of our service area.

Kirkland firefighter/EMTs complete Competency Based Training (CBT) each year. Topics are rotated on a three-year continuing education cycle. Training topics range from high performance CPR skills to drug administration, paramedic interaction, splinting broken bones, and complex rescue and medical based simulations, among others.





## PET OXYGEN MASKS DONATION

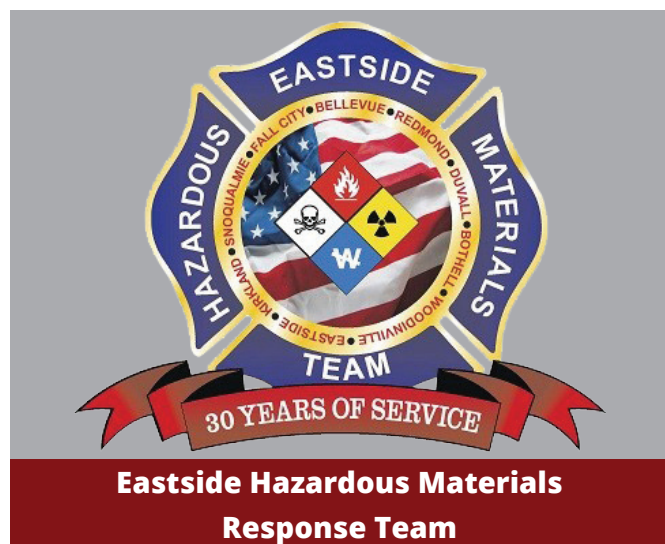


In the fall of 2018, the Kirkland Fire Department received a donation of pet oxygen masks to better assist pets suffering from smoke inhalation as a result of a structure fire. The oxygen masks were donated by Project Breathe, a program sponsored by the Invisible Fence Brand, and training for the firefighters was provided by Dr. Christine Wilford, DVM, of Island Cats Veterinary Hospital.

The Kirkland Fire Department is committed to rendering basic life support to animals when incident resources and priorities allow. While citizens should still seek veterinary care for their animals and not use 911 services for pet medical emergencies, the fire department is excited to have the new pet oxygen masks and training in place for incidents we respond to where pets are involved.



# HAZARDOUS MATERIALS



The Eastside Hazardous Materials Response Team (Hazmat) is part of the Eastside Hazardous Materials Consortium, which consists of hazardous materials technicians from the Bellevue, Redmond, Woodinville, Kirkland, Duvall, and Bothell fire departments and Eastside Fire & Rescue. The Consortium maintains equipment and personnel to staff three hazardous materials units: Hazardous Materials Unit 1 at Station 6 in Bellevue, Hazardous Materials Unit 133 at Station 33 in Woodinville, and Hazardous Materials Unit 177 at Eastside Fire and Rescue Station 71 in Issaquah. All hazardous materials units maintained and operated by the Consortium are stationed in King County Zone 1, which is the northeast section of King County.

The training and skills acquired by Hazmat team technicians render them experts in several hazmat areas. The technicians train to the National Fire Protection Agency 472 Standard and are proficient in recognizing and responding to chemical, biological, nuclear, radiological, and explosives events, in addition to a variety of fixed-use facility and transportation hazards.

Each Eastside Hazardous Response Team member is extensively trained. Individual training is facilitated by each jurisdiction, and the team comes together to train in its entirety on a quarterly basis.

Training is provided by local subject matter experts (SMEs), regional training partners, federal and state agencies, and through public-private

partnerships within the communities served by the team. Hazmat team training partners include:

- WA State Department of Ecology
- Federal Bureau of Investigation (FBI), Seattle Office
- US Army National Guard, 10th Civil Support Team (CST)
- East Metro Training Group (EMTG)
- Dave Kummerlowe, CADRE, Inc.

Training addresses a variety of topics, to fulfil training objectives mandated by the Code of Federal Regulations (CFR) 1910.120 for Hazardous Materials Response, Technician level. Some of the required training topics include, but are not limited to:

- Hazardous Materials Incident Command
- Radiological Emergencies
- Chemical Emergencies
- Biological Emergencies
- Clandestine Laboratories
- Hazardous Materials Transportation Incidents
- Hazard Pre-planning
- Tier 2 Reporting
- Chemistry
- Special Event Mitigation
- Hazard Analysis
- Decontamination

The five-year Zone 1 Hazardous Materials Work Plan is based on strategies and objectives identified in the following:

- Zone 1 Hazardous Materials Strategic Plan 2017-2022
- Zone 1 Hazmat Capital Expenditures Plan 2012-2031

The work plan reflects the progress of goals and objectives outlined in the Zone 1 Hazardous Materials Strategic Plan and incorporates the strategic priorities identified in the Zone 1 Hazardous Materials Capital Expenditures Plan.

The Zone 1 Hazmat Fire Chiefs unanimously approved the 2017 amended budget. They also unanimously approved the five-year Hazardous Materials Strategic Plan and agreed to the addition of two F550 Hazmat units, new SCBAs and new Ion Mobility Spectrometry (IMS) instrumentation, all of which came online in 2018. Additionally, all Hazmat



team technicians were outfitted with a Personal Protective Equipment (PPE) pack containing tools and other equipment to be used in the event of a Hazmat incident.

Kirkland Hazmat team members responded to a wide range of hazardous materials calls in 2018, including natural gas leaks, carbon monoxide alarms, gasoline spills, chemical spills, hazardous materials spills in Lake Washington, and a full-team deployment to a suspicious container placed on a Metro bus requiring a multiagency response.

The Kirkland Hazmat team acquired several new training props at its training facility to train technicians and operations personnel. These props included tanks for spill mitigation training, including plugging and patching, and damming, diking and diverting of hazardous materials. Other training equipment included chlorine kits used to stop the leaking of chlorine gas from containers, radiation sources used for radiation detection training, and nuclear sources with various related equipment to practice techniques specific to the decontamination of tools and hazmat personnel.

Kirkland technicians were trained as specialists in the dry-decontamination technique, a method of removing contaminants that requires no water or other liquids. They were also trained in secondary

screening for detecting radiological materials, advanced use of the department's gas detection equipment and sampling techniques for biological and chemical agents. Additionally, the team worked with the FBI to learn evidence collection techniques for use at crime scenes.

Kirkland Hazmat team members conduct a variety of services for the Kirkland Fire Department. These include:

- Operations Training for all fire department personnel
- Maintenance of KFD hazard monitoring equipment, including five gas monitors, radiation monitors and carbon monoxide monitors
- Coordination between the KFD and the Kirkland Public Works spill response unit
- Active shooter training and mass casualty incident terrorism training
- Special events monitoring
- Providing Zone 1 recruit academy hazardous materials operations training

The ESHMT and the members of the Kirkland Hazmat team are committed to continued specialty training and skill-building activities in 2019.



# WATER RESCUE

In 2018 the Water Rescue Team responded to 56 water related accidents/incidents. Kirkland's water rescue teams responded to nine requests by our surrounding agencies to provide water rescue resources/support utilizing the water rescue craft (WRC), Rapid Dive teams and rescue swimmers for extended searches both day and night. For the fourth year in a row the Kirkland Fire Department did not have a single water related fatality in our City limits. Multiple victims saved were perilously close to death. Due to the quick actions by responding crews, extensive training and top of the line equipment, Kirkland Firefighters were able to safely remove everyone from the water. Kirkland continues to be the regional leader for water rescue training and operations. KFD personnel continue in providing Operations level and Rescue Swimmer training to Firefighters from across the state. Over one hundred forty individuals took part in classes taught by KFD's twelve water rescue instructors.

A special thanks to our water rescue instructors. These personnel were responsible for writing policies; developing and delivering training; creating response plans; and ensuring that the water rescue craft and equipment were appropriately maintained and operationally ready.

- Lieutenant Justin Becker
- Lieutenant Cory Caulk
- Lieutenant Ryan Riedl
- FF Cliff Oleszko
- FF Travis Braddock
- FF Bill Barnes
- FF Brett Christiansen
- FF Moe Kelsey
- FF David Lilleness
- FF Jon Hernandez
- FF Doug Tomczak

## 2018 TRAINING SYNOPSIS

- Operations Level – All Personnel
- Rescue Swimmers – 60
- Rapid Divers – 32
- WRC Driver Operators - 58





# PERSONAL PROTECTIVE EQUIPMENT

## PERSONAL PROTECTIVE EQUIPMENT (PPE) PROGRAM:

The Kirkland Fire Department remains only one of two fire departments in the United States that holds an NFPA Independent Service Provider (ISP) certification. This certification represents years of training along with an annual verification/certification process conducted by an outside agency. This certification allows trained personnel to perform inspections and/or repairs to the 3,400+ pieces of Fire Department Personal Protective Equipment (PPE). Over four thousand repairs to zippers, vapor barriers, Kevlar shells, and miscellaneous protective equipment were performed in 2018. The addition of a specialized heat press and a new serger sewing machine allowed the repair specialist to perform repairs on department wetsuits and drysuits in support of the water rescue program. The cost savings for these inspections and repairs had a net total of over \$109,000 dollars for the City of

Kirkland. Additionally, the PPE team continued the tradition of repairing bunker gear during recruit academies for surrounding jurisdictions. These outside agencies are billed for the inspection and repair services provided. Our regional assistance allows the recruit academies to continue to train without interruption.

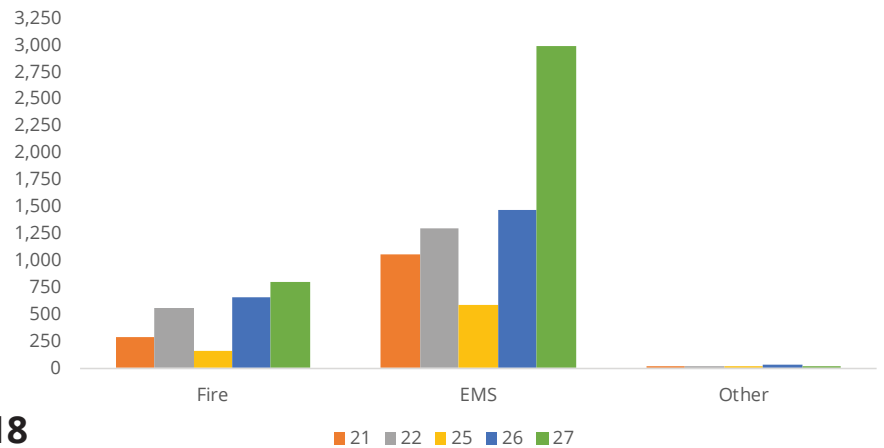
Our two repair specialists, Firefighters Cliff Oleszko and Jesse Disch, also manufacture items to assist in carrying, securing or storing equipment. Utilizing recycled fire hose, bunker gear fabric and straps, Firefighters Oleszko and Disch created SCBA bottle carrying straps, flashlight holders, rescue saw webbing slings, Large Diameter Hose (LDH) securing straps, and SCBA mask bags to better protect our breathing apparatus. Repurposing of materials allows the department to meet operational needs, reduce waste, and create savings for the organization.



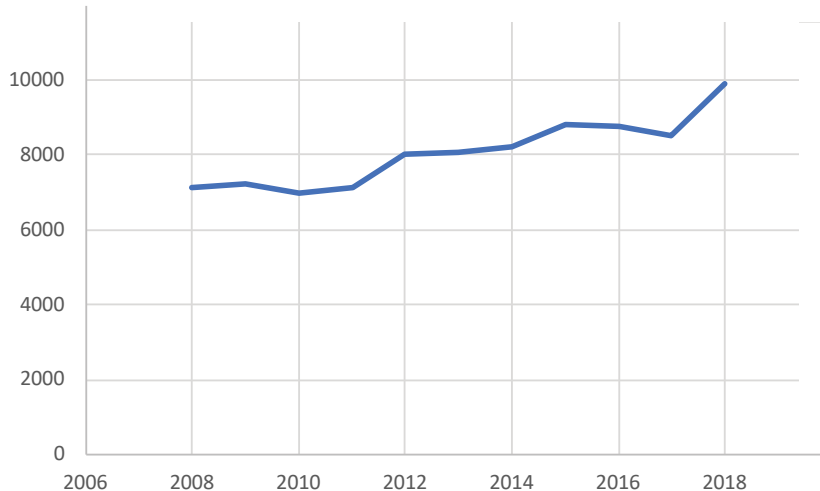
# TOTAL CALL LOG

## 2018 Total Calls for Service

CALL TYPE	STATIONS					Total
	21	22	25	26	27	
Fire	287	553	158	654	799	2,451
EMS	1,051	1,297	584	1,470	2,985	7,387
Other	10	11	5	26	25	77
<b>Total</b>	<b>1,348</b>	<b>1,861</b>	<b>747</b>	<b>2,150</b>	<b>3,809</b>	<b>9,915</b>



## Total Calls for Service 2008-2018



## Automatic Aid Received 2014-2018

	2014	2015	2016	2017	2018
Bellevue	118	133	138	157	166
Bothell	40	46	41	40	39
Northshore	46	47	44	45	29
Redmond	84	101	128	92	98
Woodinville	56	78	70	72	73
Other	3	3	7	4	-
Medic	1,144	1,324	1,582	1,693	1,544
<b>Total</b>	<b>1,491</b>	<b>1,732</b>	<b>2,010</b>	<b>2,103</b>	<b>1,949</b>



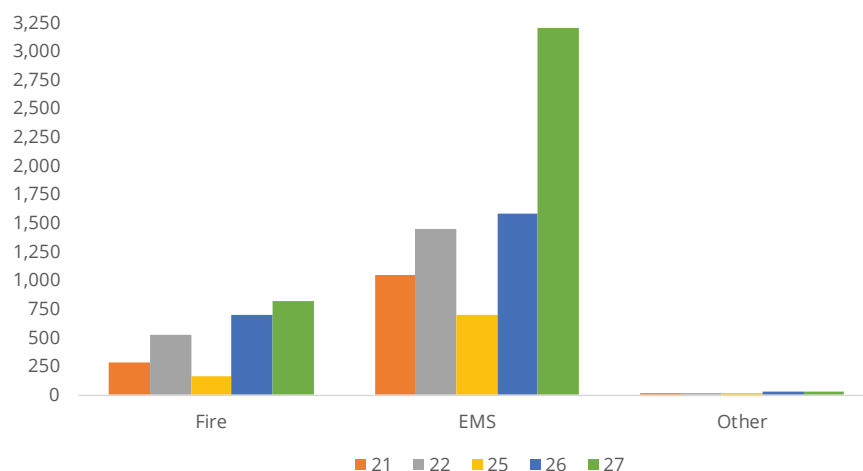
## Emergency Response Totals by Unit 2014-2018

	2014	2015	2016	2017	2018
<b>Aid 21</b>	892	890	951	970	967
<b>Aid 22</b>	1,216	1,286	1,320	1,182	1,274
<b>Aid 24</b>	124	*	*	*	*
<b>Aid 25</b>	533	609	606	588	546
<b>Aid 26</b>	959	1,074	1,071	1,120	1,104
<b>Aid 27</b>	2,033	2,223	2,011	1,511	1,633
<b>Aid 29</b>	447	483	659	1,105	1,039
<b>Engine 21</b>	388	449	460	428	389
<b>Engine 22</b>	729	727	785	755	718
<b>Engine 25</b>	206	214	190	188	340
<b>Engine 26</b>	601	626	652	578	629
<b>Engine 27</b>	730	726	679	642	566
<b>Engine 28</b>	6	7	*	*	11
<b>Ladder 27</b>	798	914	903	460	819
<b>Battalion 21</b>	570	582	642	550	539
<b>Air Unit 21</b>	55	38	57	53	36
<b>Totals</b>	<b>10,287</b>	<b>10,848</b>	<b>10,986</b>	<b>10,130</b>	<b>10,610</b>

\*Ladder 26 was moved to Station 27 in June of 2011. This eliminated L26 and created L27.  
In addition, Station 27 went from one dedicated Aid Unit to two cross staffed Aid units.

## 2018 Total Emergency Responses

CALL TYPE	STATIONS					Total
	21	22	25	26	27	
<b>Fire</b>	291	532	162	695	825	<b>2,505</b>
<b>EMS</b>	1,055	1,446	705	1,584	3,208	<b>7,998</b>
<b>Other</b>	11	14	19	31	32	<b>107</b>
<b>Total</b>	<b>1,357</b>	<b>1,992</b>	<b>886</b>	<b>2,310</b>	<b>4,065</b>	<b>10,610</b>



# 2018 RESPONSE TIME GOALS AND OBJECTIVES

## Kirkland Fire Department Response Goals

The Kirkland Fire Department response standards specify the criteria for response times to effectively deliver fire suppression and emergency medical services. KFD response times are designed to protect our community. The basis for our response time standard are the National Fire Protection Association's Standard 1710-The Standard for Organizing and Deployment of Fire Suppression Operations; the Kirkland Fire Department Strategic Plan; and Kirkland Standards of Coverage.

### FIRE Calls Meeting Travel Standard

	All Calls	In Response Area	Out of Response Area
<b>2014</b>	59%	72%	25%
<b>2015</b>	58%	70%	27%
<b>2016</b>	58%	70%	27%
<b>2017</b>	57%	67%	53%
<b>2018</b>	48%	65%	18%

### EMS Calls Meeting Travel Standard

	All Calls	In Response Area	Out of Response Area
<b>2014</b>	72%	80%	36%
<b>2015</b>	71%	78%	40%
<b>2016</b>	71%	78%	37%
<b>2017</b>	71%	77%	67%
<b>2018</b>	65%	74%	34%

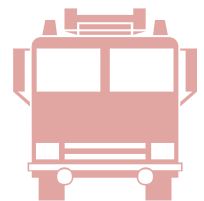
## 2018 Response Data

### Kirkland Fire Department Adopted Objective From 911 Call Pick-up to Arrival On Scene

- **EMS: 5:00** We meet this 57% of emergency incidents.
- **Fire: 5:30** We meet this 46% of emergency incidents.

**Actual Total Response Time to EMS 90% of the Time – 7:56**

**Actual Total Response Time to Fires 90% of the Time – 9:56**



# ADVANCED LIFE SUPPORT (ALS) & NORCOM

Advanced Life Support response is provided in Kirkland by King County EMS through a contract with the City of Redmond Fire Department.

Medic response time standards are established by King County Medic One.

## Medic Response Time Standard

The King County Medic response time objective is average unit response times less than 10 minutes, and 80% of calls in less than or equal to 14 minutes.

## RESPONSE ANALYSIS

Incident Year	Call Volume
2018	1,544
2017	1,879
2016	1,644
2015	1,633



TOTAL 2018 MEDIC  
CALLS IN KIRKLAND

1,544

## Norcom 2018 data

The core mission of the North East King County Regional Public Safety Communication Agency (NORCOM) is to provide high quality emergency service communication to the public for emergency medical services, fire and police. We will carry out this mission by receiving calls for service; dispatching resources in response to such calls; tracking and coordinating information flow and resources to assist responders; initiating records for all emergency events; and enhancing effectiveness, efficiency, coordination and interoperability of emergency service providers.



[www.norcom.org](http://www.norcom.org)

- The City of Kirkland is represented on the executive board of NORCOM by the City Manager.
- Kirkland police and fire serve on the NORCOM operations board.
- In 2018 NORCOM received a total of 96,589 non-emergency calls for services and 175,923 emergency calls for service.
- In 2018 NORCOM added "text to 911" allowing 911 calls to be reviewed by text messaging. While calling 911 is always the quickest method to request help, texting can be very useful in situations where making a 911 phone call may not be practical.

## NORCOM dispatch 2018 Performance Measures:

90% of 9-1-1 telephone calls will be answered within 10 seconds or less (barring major disasters or other extraordinary events)

- NORCOM answered 911 calls within 10 seconds or less 98.00% of the time in 2018

**GOAL: 90% of emergency Fire/Medical (EMS) calls are dispatched within 60 seconds.**

**NORCOM processes Fire/EMS calls in under 60 seconds 86% of the time.**

# COMMUNITY RISK REDUCTION





# FIRE PREVENTION BUREAU

## The Kirkland Fire Prevention Bureau

contributes to the safety of those who live, work and play in Kirkland through five primary fire prevention functions:

- New-construction plan review and inspection
- Existing-building inspection and operational permits
- Fire investigation
- Local Code and Policy development
- Fire safety education

The Prevention Bureau currently has staffing of 5-1/2 members. Staff include the Fire Marshal, Assistant Fire Marshal, three Fire Inspector/Investigators and a half-time office specialist.

Among the bureau's accomplishments in 2018 is gaining approval for an additional inspector who will join the team in January of 2019.

## Fire Plan Review of New Construction

Fire Prevention personnel review plans to confirm compliance with the International Fire and Building Codes, applicable local codes, ordinances, standards and regulations. This includes review of building sites for adequate fire department access, hydrant locations, adequate firefighting water supply, and proposed location of connections for firefighting systems. Furthermore, at this stage of review, fire protection systems are identified as required to be installed as a structure is completed. These include fire sprinkler systems, fire alarm systems, smoke control systems, and in-building emergency-responder-radio systems.

Fire Prevention personnel work closely with the Kirkland Building Services Division, as well as other City Departments, to ensure comprehensive and consistent enforcement of the International Codes and the Kirkland Municipal Code.

Year	Plan reviews SFR* new and additions	Plan Reviews Commercial	Plan Reviews Grading (LSM)	Plan Reviews Short Plats
2014	375	40	57	52
2015	438	39	57	58
2016	452	41	79	123
2017	454	18	69	31
<b>2018</b>	<b>448</b>	<b>106</b>	<b>62</b>	<b>43</b>
Year	Plan Reviews Zoning and Design	Plan Reviews Mechanical	Pre application conferences	Solar (PV)
2014	15	2	150	17
2015	10	3	170	38
2016	12	2	173	3
2017	8	1	156	4
<b>2018</b>	<b>15</b>	<b>2</b>	<b>161</b>	<b>1</b>

\*SFR: Single-Family Residential

# FIRE PREVENTION BUREAU

## Fire Inspections of New Construction

Once permits are issued, Fire Prevention personnel perform inspections to ensure that the required fire protection features are installed correctly and as designed. Just as during the plan review process, we work cooperatively with the Building Division and other City departments such as Public Works to ensure a seamless inspection process for the developers and contractors.

## Issuance of Operational (IFC) Permits

Some types of use, storage or activities have extra potential to create risk in the community. To manage and reduce this additional risk, conditions and special rules for these hazardous operations are defined and memorialized in the form of an operational permit. Commonly issued operational permits are for fireworks displays, hazardous materials, large commercial tents, bonfires, hot work and a variety of other hazardous activities.

Year	Fire system Permits issued	Fire Protection System Inspections	IFC Permits issued	IFC Inspections
2014	291	1157	26	28
2015	283	1966	48	91
2016	345	1193	65	87
2017	333	2034	48	71
2018	376	2418	49	39

## Annual Fire Safety Inspection Program

Fire Prevention personnel are responsible for managing the annual fire safety inspection program. Occupancies in the City receive a fire and life safety inspection annually. Citizens will often see their firefighters around Kirkland conducting inspections. Firefighters focus on discovering and correcting conditions likely to cause a fire or life safety hazard. In 2016, Prevention paused normal inspections procedures to purchase and install new inspection software. The new software allows firefighters to more accurately track completed inspections, occupancy contact information and required corrections. With the efficiencies gained by implementing new software, our firefighters will be able to complete inspections faster and eliminate redundancy. Throughout 2018, milestones have been reached in the implementation of the improved inspection program. More than 9,000 occupancy records were organized, scrubbed, and uploaded to the new software application; training was developed and delivered to test crews; and nearly 100 test inspections were completed to prepare for roll out to operations crews early in 2019.

## Fire Investigations

The Fire Prevention Bureau is mandated to conduct fire investigations to determine the origin and cause of all fires which occur within the City of Kirkland. Fire Investigators work closely with the Kirkland Police Department in the event that a fire is suspicious or is determined to be arson.

All investigators are trained to national standards, attending the National Fire Academy in Emmitsburg, Maryland, gaining certification through the Washington State Patrol, and from the International Association of Arson Investigators (IAAI). Kirkland is an active member of Zone 1 Fire Investigators and Zone 1 Fire Marshals.

Year	Company Level Fire inspections	Company Officer Investigations reviewed	Investigator reports
2014	1551	90	57
2015	1164	115	48
2016	0	131	22
2017	0	127	18
2018	94	126	21

## Code and Policy Development and Publication

The Fire Marshal is responsible for developing and publishing policies related to established fire prevention goals. These policies are technical in nature and geared towards assisting developers and contractors in site and system design. In addition, the Fire Marshal is responsible for code and policy interpretations. The Fire Marshal coordinates with Fire Marshals in neighboring jurisdictions so that code interpretations and requirements are standardized throughout the region as much as possible.



## WAYS TO IMPROVE LIFE SAFETY AND REDUCE PROPERTY LOSS

**1**

ANNUALLY TEST FIRE ALARMS, SPRINKLER SYSTEMS,  
HOOD AND DUCTS, AND FIRE EXTINGUISHERS.

**2**

ORGANIZE STORAGE AND KEEP ITEMS 18-24"  
BELOW THE CEILING

**3**

KEEP ELECTRICAL, MECHANICAL AND FIRE  
ACCESS ROOMS CLEAR OF STORAGE

**4**

REPAIR ELECTRICAL HAZARDS AND AVOID  
PIGGYBACKING EXTENSION CORDS

**5**

KEEP EXIT AND FIRE DOORS IN WORKING ORDER



City of Kirkland Fire Prevention Bureau  
Life Safety & Property Loss Reduction  
Questions? Call Fire Prevention at 425-587-3661





# OFFICE OF EMERGENCY MANAGEMENT



# OEM

## 2018 was a year of transition

and growth for the Office of Emergency Management (OEM). In June Heather Kelly was appointed the City Emergency Manager. In December the Council funded a full time Emergency Preparedness Coordinator position that was filled by Karissa Smith. Karissa began working with the City on January 2, 2019.

The Emergency Operations Center (EOC) tested staff and capability with an all-day exercise focusing on supporting the needs of the community when infrastructure is unavailable. This was followed by a City leadership exercise and a City council study session to round out the coordination of response at all levels.

Emergency Management and Kirkland Police staff traveled to Anniston, Alabama to train and exercise with Evergreen Medical Center leadership building skills and relationships that will benefit the community in a disaster.

OEM delivered training to City and regional participants on Incident Command, Public Information, and disaster operations. In partnership with the City GIS team, a windshield survey application was developed to assist the City in assessing damage following a major incident to allow for effective use of limited resources to support the community.

The dedicated volunteers of Emergency Management have been busy in 2018 as well. The Community Emergency Response Team (CERT) program held two eight-week long classes to add an additional 44 CERT graduates to the hundreds already trained. The volunteer presentation team staffed preparedness tables at DennyFest, Crossing Kirkland, Hermosa Vista Neighborhood Party, and the Norkirk Neighborhood/Lake Washington Christian Church preparedness event. The Map Your Neighborhood (MYN) program added 11 new neighborhoods to the program, trained 21 facilitators, and now has 34 MYN locations in Kirkland. Great work and effort by volunteer community members.

The Kirkland Emergency Communications Team (KECT) added several new participants to the team in 2018, supported the Crossing Kirkland event, and continues to build capability through training and drills.

OEM is looking forward to an active year of building and development for 2019.

# CHAPLAIN'S REPORT

For 30 years the Chaplain's program in Kirkland has been a service to our citizens under unimaginable situations of pain and heartache.

## The role of your Chaplain is twofold.

1. As requested by an on-scene commander, Chaplain Vince Armfield helps relatives and friends of people caught in crisis process the situation. The Chaplain takes care of these people and allows first responders to do their jobs with minimal distraction. The family is briefed on the protocols that are unfolding around them, offered comfort and help through what many times seems like chaos to them.
2. The Chaplain is a listening ear, a presence and a source of encouragement to first responders both on scene and at any time they need. Vince serves as a member of the Kirkland Police Dept. Peer Support Team.

Chaplain Armfield meets people where they are and provides care and assistance wherever needed.



Chaplain Vince Armfield

# DEPARTMENT DIRECTORY 2019

## GENERAL INFORMATION ..... 425-587-3650

Headquarters - 123 Fifth Avenue, Kirkland 98033

### Fire Administration

Joe Sanford, Fire Chief .....	425-587-3602
Tim Day, Deputy Chief .....	425-587-3601
Dave Van Valkenburg, Deputy Chief.....	425-587-3605
Joel Bodenman, EMS Captain.....	425-587-3663
Audrey Martin, Administrative Services Supervisor.....	425-587-3658
Victoria Davies, Administrative Assistant.....	425-587-3638
Elijah Panci, Financial Analyst .....	425-587-3425
Jim Fink, Mechanic .....	425-587-3880

### Fire Prevention

Mark Jung, Battalion Chief/Fire Marshal .....	425-587-3623
Grace Steuart, Assistant Fire Marshal.....	425-587-3660
Jason Chappell, Lieutenant/ Fire Inspector.....	425-587-3655
Cory Caulk, Lieutenant/Fire Inspector .....	425-587-3657
Todd Anderson, Fire Inspector.....	425-587-3639
Renee Lirette, Fire Inspector.....	425-587-3653
Teri Wallace, Office Specialist.....	425-587-3634

### Training

Bill Hoover, Battalion Chief .....	425-587-3698
Marc Hallen, Captain.....	425-587-3697
Anna Grimes, Office Specialist .....	425-587-3641

### Office of Emergency Management

Heather Kelly, Emergency Manager .....	425-587-3670
Karissa Smith, Emergency Preparedness Coordinator .....	425-587-3691



## PLAN OF ACTION

- Participate in citywide discussions on Phase II of the Public Safety Initiative in preparation for 2020 bond measure.
- Plan, design and begin construction of a new Station 24 in the Juanita neighborhood.
- Institute hiring plan to support staffing of new Station 24.
- Evaluate and purchase thermal imaging cameras for all Kirkland Fire Department response vehicles.
- Establish work plan for Mobile Integrated Health (MIH) program for delivery of alternative service to at-risk and vulnerable populations in the City.
- Design and build training prop at Station 26 in support of improved training opportunities within city limits.
- Develop sustainable wildland/urban interface program to support statewide firefighting efforts.



## THANK YOU CARDS

To The Kirkland Fire Department,

Thank you so much for coming to our school and letting us on to your fire truck. We all loved it!

Love from

The kids, staff and PTA at Franklin Elementary

Auto Presorted  
First-Class Mail  
U.S. Postage Paid  
Permit 4987  
Phoenix, AZ



This photo was taken on  
1 Oct 2018 in Kirkland, WA, USA. Sent  
using TouchNote.

DEPUTY CHIEF DAVE VAN  
VALKENBURG  
123 5TH AVE  
KIRKLAND FIRE DEPT  
KIRKLAND, WA 98033-6121





# CITY OF KIRKLAND FIRE DEPARTMENT

## MEET THE TEAM

### Chair

#### **Mayor Penny Sweet**



Mayor Sweet began her first term on the Kirkland City Council in January 2010. She served as Deputy Mayor from 2010-2011, and 2014-2015. The Kirkland City Council selected her to serve as Mayor for the remainder of 2019. She is the current Chair of the Public Safety Council Committee, served as a board member of the Emergency Management Advisory Committee for six years, is a member of King County EMS Advisory Task Force, and is a Community Emergency Response Team graduate. Mayor Sweet moved to Kirkland in 1985 where she and her husband, Larry Springer, have owned and operated The Grape Choice, a retail wine shop in downtown Kirkland for 31 years.

### Facilitator

#### **Marilynne Beard, MMB Consulting**



Marilynne Beard is an independent consultant providing training, facilitation, community engagement and project support for public and non-profit organizations. She retired from the position of Deputy City Manager for the City of Kirkland in June 2019 after which she formed MMB Consulting LLC. Marilynne worked in local government for over 37 years and at the City of Kirkland for 31 years where she served as Finance Director prior to her move to the City Manager's Office in 2006. Marilynne graduated from the University of Oregon with a Bachelor of Arts in Education and a Master of Science in Public Administration. Marilynne is a past President of the Washington City Managers Association and is currently serving as a WCMA Senior Advisor for the Puget Sound

Region of Washington State.



## City of Kirkland Staff and Presenters

### **Joe Sanford, Fire Chief**



Hired in March of 1981, Chief Sanford has 38 years of service in the City of Kirkland's Fire Department. He graduated from the University of Washington with a bachelor's degree in Communications, played Division 1 football for the Huskies and spent time in the NFL playing for the New York Giants. As the Fire Chief, he oversees the operations and administration of the Fire Department. Throughout his career, he has served as the past president of the International Association of Firefighters (IAFF) in 1987, 1988, and 1989. Chief Sanford has held every rank during his career and was awarded Fire Chief of the year in 2012 and 2014. When asked about his hobbies, he mentioned he has eight children, and ten grandchildren, "enough said!"

### **Tim Day, Deputy Fire Chief**



Tim Day is the Deputy Chief of Operations with the Kirkland Fire Department. He has a bachelor's degree from the University of Washington, a Master's in Public Administration from Seattle University, and is a graduate of the National Fire Academy's Executive Fire Officer Program. Prior to joining the City of Kirkland in 2017, Tim worked for City of Auburn/Valley Regional Fire Authority for over 20 years as a Firefighter, Captain, Battalion Chief, and Deputy Chief. Tim has held multiple operational and administrative assignments as a fire officer. Tim and his wife, Kari, live in Bellevue and are the proud parents of two daughters aged 17 and 20.

### **Dave Van Valkenburg, Deputy Fire Chief**



Dave Van Valkenburg began his career with the City of Bothell's Fire Department over thirty years ago. During that time, he gained experience as a Firefighter, Fire Inspector, Lieutenant, Battalion Chief, Interim Deputy Chief, and became a nationally accredited Fire Officer I and II. As a Battalion Chief assigned to the Training Division, he led a team responsible for training 150 firefighters and paramedics from three fire departments. Dave joined the management team for the Kirkland Fire Department as a Deputy Chief in 2017. In addition to his role, he is an instructor for the National Fire Academy and the Washington State Fire Academy, providing training to firefighters and fire officer across the state.

### **Seth Buchanan, Battalion Chief**





Seth Buchanan was hired in 2001. He's worked as a Firefighter and promoted through the ranks from Lieutenant to Captain and recently promoted to Battalion Chief. He's worked at all of our stations and operated every apparatus, including our ladder truck. He is currently assigned as the Battalion Chief on B shift overseeing the operational needs of that shift and focusing on the needs of our Hazmat and Technical rescue programs.

**Mark Jung, Fire Marshal**



Fire Marshal Mark Jung joined the Kirkland Fire Department in 1992 and has served as firefighter, driver/operator, lieutenant, captain, and battalion chief. He has earned a Bachelor of Arts degree from Western Washington University and Master of Public Administration from Seattle University. Chief Jung has worked on teams to improve performance and efficiency of the Fire Department throughout his career. These projects include original research into the cause of injuries among firefighters, analysis and implementation of emergency medical services transport cost recovery program, and implementation of electronic records management of existing building inspection data in the Fire Prevention Division. Chief Jung maintains certifications in fire inspection, fire plan review, and fire investigation, and he is the recipient of the Kirkland Fire Department Valor Award, Officer of the Year, Athlete of the Year, and Community Service Award.

**Bill Hoover, Training Battalion Chief**



Hired in 1992 as the Training Battalion Chief, Bill Hoover coordinates the delivery of training activities for the department and is a county-wide leader in technical rescue training programs. He is highly committed to firefighter health and safety and serves on the Washington State Council of Firefighter's (WSCFF) Health and Safety Committee. He co-founded the Firefighter Cancer Support Network, and was awarded the WSCFF Fully Involved award and the American Professional Management Services Meritorious award in recognition of support of fighter wellness.

**Kurt Triplett, City Manager**



Kurt Triplett was hired in June of 2010 as Kirkland's fourth City Manager. He has a master's degree in Public Administration from Harvard University's Kennedy School of Government, and a Bachelor of Arts in Political Science from Stanford University. He is the past chair and serves on the Board for A Regional Coalition for Housing (ARCH). He is also currently chair of the Eastside Public Safety Communications Agency (EPSCA) as well as a joint board member for the Puget Sound Emergency Radio Network (PSERN). Prior to Kirkland, he worked for King County for 17 years, including serving as the Interim County Executive in 2009, Chief of Staff to Executive Ron Sims, Deputy Director of Natural Resources and Parks, and Deputy Chief of Staff for Executive Sims and former Executive Gary Locke.

**Tracey Dunlap, Deputy City Manager**



Tracey Dunlap has a bachelor's degree in Industrial and Management Engineering from Rensselaer Polytechnic Institute and is a licensed Professional Engineer. During her time at Kirkland, she served as the Treasurer of NORCOM (the North East King County Regional Public Safety Communication Agency) and on the Sound Cities Association Finance Committee, the Local Government Advisory Committee of the State Auditor's Office, the King County EMS Levy Finance Subcommittee, and has been a contributor to the MRSC Finance Advisor column. Prior to joining Kirkland, she was a principal and shareholder in FCS Group, a regional financial and management consulting firm for 14 years. Tracey's experience also includes working for a large defense contractor and a major financial institution.

**Andreana Campbell, Project Manager**



Andreana has bachelor's degree in International Relations from the University of California, Davis, and a master's degree in Public Administration from California State University, Long Beach. Prior to moving to Kirkland, she worked as a Research Fellow on a successful State Legislative campaign in Southern California's 18<sup>th</sup> district. She began her professional career in Washington when she was hired by the City of Seattle as a Strategic Advisor. Currently, she works as the City of Kirkland's Project Manager overseeing the potential Fire Ballot Measure for November of 2020. In June of 2019 she graduated from the Northwest Women's Leadership Academy as a member of the inaugural cohort and serves as an Associate Board Member on the Washington City/County Management Association.

**CITY OF KIRKLAND**

**Planning and Building Department**  
**123 5th Avenue, Kirkland, WA 98033**  
**425.587.3600- [www.kirklandwa.gov](http://www.kirklandwa.gov)**

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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Christian Geitz, Planning Supervisor  
Jeremy McMahan, Deputy Planning and Building Director  
Adam Weinstein, Planning and Building Director

**Date:** March 30, 2020

**Subject:** **Final Adoption and Codification of the Shoreline Master Program Periodic Update (Shoreline Management Regulations and Policies); and Critical Area Ordinance Amendments (Stream and Wetland Regulations), File CAM19-00026**

**I. RECOMMENDATION**

That City Council should adopt Ordinance O-4700 and Ordinance O-4701 amending the Comprehensive Plan and Kirkland Zoning Code as they relate to the City's shoreline policies and regulations. The attached ordinances reflect the recommendations from the Planning Commission (PC) and Houghton Community Council (HCC), as well as recommendations and required changes from the Washington State Department of Ecology (Ecology) and include changes previously directed by City Council.

**II. DISCUSSION**

At the [March 3, 2020 Council meeting](#), the City Council reviewed and provided direction on the three remaining items from the original list of nine key issues reviewed by Council at the February 4 meeting. Those remaining three items included pier length, the Administrative Alternative Design Option, and the Non-conforming Overwater Structure codes. Staff has incorporated the recommendations from the Council discussion on March 3 into the proposed Ordinance (O-4701), as briefly discussed in the following section.

**Item 1 – Single-Family Per Length (KZC 83.270):**

Staff was given direction to clarify how the length of a pier would be measured relative to adjacent piers, and also to produce new draft code that considers the average depth of neighboring piers. The code presented at the March 3 meeting was discussed and a motion to approve the draft was passed by the Council and has been incorporated into the proposed Ordinance (O-4701).

**Item 4 – Administrative Approval Option (KZC 83.270.4(b))**

The administrative approval option allows applicants to request State and Federal permits that are more permissive than certain City regulations. Pursuant to KZC section 83.270.4(b), applications pursuing the administrative approval option are only able to seek variation to dimensional standards of pier width, area, and depth for ells. The draft regulations recommended by the PC and HCC removed the administrative approval option from the current SMP.

At the direction of the Council at the March 3 meeting, the administrative approval option has been retained in the proposed ordinance (O-4701).

### **Item 6 – Non-Conforming Overwater Structures (KZC 83.550.5)**

This section currently requires removal of non-conforming structures in the shoreline setback citywide and removal of non-conforming overwater structures within the RSA and RMA areas of the City when significant upland development occurs. The Council directed staff at the March 3 meeting to maintain the status quo for this section, although Council may give direction to study amending these code provisions as part of a future Planning Work Program item (which is discussed in an independent staff memo). The proposed amendments have been removed from the final proposed ordinance (O-4701).

### **III. SMP PERIODIC UPDATE BACKGROUND**

The City's Shoreline Master Program (SMP) establishes regulations that apply to all property within 200 feet of the ordinary high water mark of Lake Washington, as well as large wetlands associated with the Lake (Yarrow Bay, Juanita Bay and Forbes Valley). The regulations govern preferred uses, public access and ecological protection.

Every eight years after the comprehensive update in 2010, as mandated by the Shoreline Management Act and reflected in [WAC 173-26-090 \(2\)](#), the City must conduct a periodic review of the SMP and prepare necessary amendments to ensure consistency with any changes to state law, changes in local plans and regulations, changes in local circumstances, and new information or improved data. The Department of Ecology establishes required period update targets for local jurisdictions under RCW 90.58.080 and [WAC 173-26-090 \(2\)](#). The initial required deadline for the City of Kirkland to complete its periodic review was June 29, 2019. The Department of Ecology allowed additional time for the City to complete the local legislative review process and consideration of proposed amendments due to increased public participation and public outreach by the City. The Department of Ecology has final approval authority over the City's SMP and any subsequent amendments.

The Shoreline Master Program periodic update includes amendments to the following:

- Zoning Code Chapter 5 – Definitions
- Zoning Code Chapter 83 – Shoreline Management
- Zoning Code Chapter 90 – Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas, And Frequently Flooded Areas
- Zoning Code Chapter 141 – Shoreline Administration
- Zoning Code Chapter 180 – Plates

- Shoreline Area Chapter of the Comprehensive Plan – goals and policies

On August 27, 2019, the City of Kirkland submitted the final Shoreline Master program and Critical Area Ordinance update recommendations from the Planning Commission and Houghton Community Council for consideration by the Washington State Department of Ecology. On October 7, 2019, the Determination of initial concurrence was presented to the City by Ecology. Ecology determined the City's proposed amendments, subject to two recommendations and four required changes, are consistent with the standards of RCW 90.58.020 and RCW 90.58.090.

#### **IV. STUDY SESSIONS, BRIEFINGS, PUBLIC MEETINGS AND HEARINGS**

Links below are to the staff memorandums prepared for public meetings and public hearings that have been held over the last 12 months.

On [February 25, 2019](#) and on [February 28, 2019](#), respectively, the Houghton Community Council and Planning Commission held study sessions to receive background information, review a first draft of the amendments and provide direction and comments for preparation of the next draft of the amendments.

On [March 5, 2019](#), the City Council had a briefing to receive an overview on the SMP amendments to review the Planning Commission's direction, along with comments from Houghton Community Council, and to provide direction to staff on additional issues that were discussed in the second draft for the April 25 public hearing.

On [April 25, 2019](#), the Department of Ecology, the Kirkland Planning Commission and the Houghton Community Council held a joint state and local public hearing on the second draft of the amendments following an open house, where the public had the opportunity to learn more about the proposal.

Following the April 25 joint public meeting, the City received a large volume of comments and questions about the periodic review of the SMP. Staff requested the Planning Commission and Houghton Community Council re-open the public hearing and allow for public meetings to occur in order to provide adequate opportunity for comments and questions to be received and clarified respectively as discussed in section VII below.

On [July 25, 2019](#), the Kirkland Planning Commission and the Houghton Community Council held a joint public hearing on the final draft amendments following the previous public hearing and two public informational meetings (May 21 and June 18).

On [November 6, 2019](#), the Kirkland City Council heard the proposed code amendment recommendations developed by the Planning Commission and Houghton Community Council, presented as draft Ordinances O-4700 and O-4701. The proposed SMP update was preliminarily reviewed by the Department of Ecology and deemed Initially Consistent with a few required amendments. Staff incorporated the DOE amendments in the proposed code. The Council directed staff to continue discussing the proposed amendments with interested parties and return.



At the [February 4, 2020](#) council meeting, City Council deliberated the pending nine items and directed staff to return with additional information and a draft ordinance for consideration.

At the March 3, 2020 Council meeting, City Council considered the final three pending items and requested that staff return with the final amendments to the code, retaining the status quo for the Administrative Approval Option related to single-family pies and the non-conforming over-water structure code, KZC 83.270.4.b and 83.550.5.b.5445 respectively. Staff was directed to provide further detail and options related to a potential new Planning Work Program item wherein the existing single-family residential non-conforming over-water structure code will be evaluated and potentially updated to allow retention of non-conforming overwater structures. The third item, pier length, was discussed and the proposed language incorporating average length and depth was accepted.

## **V. FINAL ADOPTION**

Upon adoption by the City Council of the ordinances, staff will compete the following steps:

- Houghton Community Council provides their response to the City Council ordinance, by resolution.
- The adopted amendments are sent to Ecology for approval by the State, which has final authority over the SMP amendments.
- SMP is effective 14 days after approval from Ecology's Director.

## **VI. ENCLOSURES**

1. Ordinance O-4700: Draft Comprehensive Plan Update
2. Ordinance O-4701: Kirkland Zoning Code Update

## Chapter 83 – SHORELINE MANAGEMENT<sup>1</sup>

### Sections:

#### Authority and Purpose

- 83.10 Authority
- 83.20 Applicability
- 83.30 Purpose and Intent
- 83.40 Relationship to Other Codes and Ordinances
- 83.50 Interpretation
- 83.60 Liberal Construction
- 83.70 Severability

#### Definitions

- 83.80 Definitions
  - Shoreline Environment Designations and Statewide Significance
- 83.90 Shorelines Jurisdiction and Official Shoreline Map
- 83.100 Natural
- 83.110 Urban Conservancy
- 83.120 Residential – L
- 83.130 Residential – M/H
- 83.140 Urban Mixed
- 83.150 Aquatic

#### Uses and Activities in the Shoreline Environment

- 83.160 User Guide
- 83.170 Shoreline Environments, Permitted and Prohibited Uses and Activities Chart

#### Use Specific Regulations

- 83.180 Shoreline Development Standards
- 83.190 Lot Size or Density, Shoreline Setback, Lot Coverage and Height
- 83.200 Residential Uses
- 83.210 Commercial Uses
- 83.220 Recreational Uses
- 83.230 Transportation Facilities
- 83.240 Utilities
- 83.250 Land Division

#### Shoreline Modification Regulations

- 83.260 General
- 83.270 Piers, Docks, Moorage Buoys and Piles, Boat Lifts and Boat Canopies Serving a Detached Dwelling Unit Use (Single-Family)
- 83.280 Piers, Docks, Moorage Buoys, Boat Lifts and Canopies Serving Detached, Attached or Stacked Dwelling Units (Multifamily)
- 83.290 Marinas and Moorage Facilities Associated with Commercial Uses
- 83.300 Shoreline Stabilization
- 83.310 Breakwaters, Jetties, Groins
- 83.320 Dredging and Dredge Material Disposal
- 83.330 Land Surface Modification
- 83.340 Fill
- 83.350 Shoreline Habitat and Natural Systems Enhancement Projects



## General Regulations

83.360	No Net Loss Standard and Mitigation Sequencing
83.370	Federal and State Approval
83.380	Shoreline Setback Reduction
83.390	Site and Building Design Standards
83.400	Tree Management and Vegetation in Shoreline Setback
83.410	View Corridors
83.420	Public Access
83.430	In-Water Construction
83.440	Parking
83.450	Screening of Storage and Service Areas, Mechanical Equipment and Garage Receptacles
83.460	Signage
83.470	Lighting
83.480	Water Quality, Stormwater, and Nonpoint Pollution
83.490	Critical Areas – <a href="#">General Standards Wetlands, Streams, Fish and Wildlife Habitat Conservation Areas and Frequently Flooded Areas</a>
83.500	<a href="#">Wetlands</a>
83.510	<a href="#">Streams</a>
83.520	<a href="#">Critical Areas</a> : Geologically Hazardous Areas
83.530	Flood Hazard Reduction
83.540	Archaeological and Historic Resources
83.550	Nonconformances
83.560	Emergency Actions

## Authority and Purpose

### 83.10 Authority

This chapter is adopted as part of the Shoreline Master Program for the City. It is adopted under the authority of Chapter 90.58 RCW and Chapter 173-26 WAC.

(Ord. 4251 § 3, 2010)

### 83.20 Applicability

1. The requirements of this chapter apply to uses, activities and development within shorelines jurisdiction.
2. Designation – The waters of Lake Washington and shorelands associated with Lake Washington are designated as shorelines of statewide significance.
3. Shorelines Jurisdiction
  - a. The provisions of this chapter shall apply to all shorelines of the state, all shorelines of statewide significance, and shorelands.
  - b. Lake Washington, its underlying land, associated wetlands, and those lands extending landward 200 feet from its OHWM are within shorelines jurisdiction.
  - c. Shorelines jurisdiction does not include buffer areas for wetlands or streams that occur within shorelines jurisdiction, except those buffers contained within lands extending landward 200 feet from the OHWM of Lake Washington.

(Ord. 4251 § 3, 2010)

### 83.30 Purpose and Intent

It is the intent of the Kirkland Shoreline Master Program (SMP) to manage the use and development of the shorelines of Kirkland, giving preference to water-dependent and water-related uses, and encouraging shoreline

development and uses to avoid, minimize and mitigate impacts. In addition, the SMP, consisting of this chapter, the Shoreline Area chapter of the Comprehensive Plan and the Restoration Plan, has the following purposes:

1. Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
2. Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
3. Protect the City's investments as well as those of property owners along and near the shoreline.
4. Efficiently achieve the SMP mandates of the state.
5. In interpreting the provisions of this chapter, preference shall be given in the following order to uses that:
  - a. Recognize and protect the statewide interest over local interest;
  - b. Preserve existing natural areas along the shoreline;
  - c. Result in long-term over short-term benefit;
  - d. Protect the resources and ecology of the shoreline;
  - e. Increase public access to publicly owned areas of the shorelines;
  - f. Increase recreational opportunities for the public in the shoreline; and
  - g. Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary.

(Ord. 4251 § 3, 2010)

#### **83.40 Relationship to Other Codes and Ordinances**

1. The shoreline regulations contained in this chapter shall apply as an overlay and in addition to zoning, land use regulations, development regulations, and other regulations established by the City.
2. In the event of any conflict between these regulations and any other regulations of the City, the regulations that provide greater protection of the shoreline natural environment and aquatic habitat shall prevail.
3. Shoreline Master Program policies, found in the Shoreline Area chapter of the City's Comprehensive Plan, establish intent for the shoreline regulations.

(Ord. 4251 § 3, 2010)

#### **83.50 Interpretation**

1. General – The Planning Director may issue interpretations of any provisions of this chapter as necessary to administer the Shoreline Master Program policies and regulations. The Director shall base his/her interpretations on:
  - a. The defined or common meaning of the words of the provision; and
  - b. The general purpose of the provision as expressed in the provision; and
  - c. The logical or likely meaning of the provision viewed in relation to the Washington State Shoreline Management Act (the Act), including the purpose and intent as expressed in Chapter 90.58 RCW and the applicable guidelines as contained in Chapter 173-26 WAC, and the shoreline chapter of the Comprehensive Plan.

Any formal written interpretations of shoreline policies or regulations shall be submitted to the Department of Ecology for review.

2. Effect – An interpretation of this chapter will be enforced as if it is part of this code.

3. Availability – All interpretations of this chapter, filed sequentially, are available for public inspection and copying in the Planning and Building Department during regular business hours. The Planning Official shall also make appropriate references in this code to these interpretations.

(Ord. 4491 § 3, 2015; Ord. 4251 § 3, 2010)

### **83.60 Liberal Construction**

As provided for in RCW 90.58.900, the Shoreline Management Act is exempted from the rule of strict construction; the Act and this chapter shall therefore be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the Act and this chapter were enacted and adopted, respectively.

(Ord. 4251 § 3, 2010)

### **83.70 Severability**

1. The standards, procedures, and requirements of this chapter are the minimum necessary to promote the health, safety, and welfare of the residents of Kirkland. The City is free to adopt more rigorous or different standards, procedures, and requirements whenever this becomes necessary.
2. The Act and this chapter adopted pursuant thereto comprise the basic state and City law regulating use of shorelines. In the event provisions of this chapter conflict with other applicable City policies or regulations, the more restrictive shall prevail. Should any section or provision of this chapter be declared invalid, such decision shall not affect the validity of this chapter as a whole.

(Ord. 4251 § 3, 2010)

## **Definitions**

### **83.80 Definitions**

For the purposes of this chapter the following terms shall have the meaning ascribed to them below. Terms not defined in this section shall be defined as set forth in Chapter 5 KZC. Where definitions in this chapter conflict with definitions elsewhere in the KMC or KZC, the definitions provided in this section shall control. In addition, all the definitions in RCW 90.58.030, WAC 173-26-020, and WAC 173-27-030 shall be deemed definitions in this chapter.

1. Act – The Washington State Shoreline Management Act, Chapter 90.58 RCW.
2. Agriculture – Agricultural uses and practices including, but not limited to: Producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities; provided, that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation.
3. Aquaculture – The cultivation of fish, shellfish, and/or other aquatic animals or plants, including the incidental preparation of these products for human use.
4. Aquatic – Those areas waterward of the OHWM.
5. Appurtenance – For the purpose of an exemption of a single-family residence, also referred to as a detached dwelling unit on one (1) lot, and its associated appurtenances from a substantial development permit, an appurtenance includes those listed under WAC 173-27-040 and tool sheds, greenhouses, swimming pools, spas, accessory dwelling units and other accessory structures common to a single-family residence located landward of the OHWM and the perimeter of a wetland.

~~6. Accessory Dwelling Unit – See Chapter 5 KZC.~~

7. Average Parcel Depth – The average of the distance from the OHWM to edge of the public right-of-way or vehicular access easement, whichever provides direct access to the existing or proposed primary structure on the subject property, as measured along the side property lines or the extension of those lines where the water frontage of the subject property ends, the center of the OHWM of the subject property and the quarter points of the OHWM of the subject property. See Plate 19. For those circumstances where a parcel or a portion of a parcel does not abut a public right-of-way or vehicular easement road, the average parcel depth shall be measured from the OHWM to the edge of the property line opposite of and generally parallel to the OHWM using the same method as described above. At the northern terminus of the 5th Avenue West vehicular access easement, the average parcel depth shall be measured from the OHWM to the west side of the public pedestrian access easement providing access to Waverly Beach Park.
8. Average Parcel Width – The average of the distance between the two (2) side property lines perpendicular to the OHWM as measured along the OHWM and along the property line opposite the OHWM, or measured along the two (2) property lines generally parallel to the OHWM of a parcel that does not abut Lake Washington.
9. Bioengineering – Project designs or construction methods that use live woody vegetation or a combination of live woody vegetation and specially developed natural or synthetic materials to establish a complex root grid within the existing bank that is resistant to erosion, provides bank stability, and maintains a healthy riparian environment with habitat features important to fish life. Use of wood structures or limited use of clean angular rock may be allowable to provide stability for establishment of the vegetation.
10. Boat – Any contrivance used or capable of being used as a means of transportation on water, except for cribs or piles, shinglebolts, booms or logs, rafts of logs, and rafts of lumber.
11. Boat House – An overwater structure designed for the storage of boats, but not including boat lift canopies.
12. Boat Launch – Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.
13. Boat Lift – Lifts for motorized boats, kayaks, canoes and jet skis. Includes floating lifts that are designed to not contact the substrate of the lake; ground-based lifts that are designed to be in contact with or supported by the substrate of the lake; and suspended lifts that are designed to be affixed to the existing overwater structure with no parts contacting the substrate.
14. Boating Facilities – Facilities providing boat moorage space, fuel, or other commercial services. As used in this chapter, “boating facilities” refers to the following use listings: piers, docks, moorage buoys, boat lifts and canopies serving attached, stacked and detached dwelling units and marinas and moorage facilities associated with commercial uses.
15. Breakwater – Protective structures that are normally built offshore to provide protection from wave action.
16. Buffer – The area immediately adjacent to wetlands and streams that protects these sensitive areas and provides essential habitat elements for fish and/or wildlife.
17. Buffer Setback – A setback distance of 10 feet from a designated or modified wetland or stream buffer within which no buildings or other structures may be constructed, except as provided in KZC 83.500 and 83.510. The buffer setback serves to protect the wetland or stream buffer during development activities, use, and routine maintenance occurring adjacent to these resources.
18. Bulkhead – A vertical or nearly vertical erosion protection structure placed parallel to the shoreline consisting of concrete, timber, steel, rock, or other permanent material not readily subject to erosion.
19. Canopy – A cover installed as a component of a boat lift.
20. Channel Migration Zone – The area along a river or other watercourse within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river or other watercourse and its surroundings.

~~21. Class A Streams—Streams that are used by salmonids. Class A streams generally correlate with Type F streams as defined in WAC 222-16-030.~~

~~22. Class B Streams—Perennial streams (during years of normal precipitation) that are not used by salmonids. Class B streams generally correlate with Type F streams (if used by nonsalmonids or they contain fish habitat) or Type Np streams (if they are perennial and do not contain fish habitat) as defined in WAC 222-16-030.~~

~~23. Class C Streams—Seasonal or ephemeral streams (during years of normal precipitation) not used by salmonids. Class C streams generally correlate with Type F streams (if used by nonsalmonid fish or they contain fish habitat) or Type Ns streams (if they are seasonal and do not contain fish habitat) as defined in WAC 222-16-030.~~

24. Commercial Use – Includes retail, office services, entertainment, and recreation ~~and/or light industrial~~ uses, depending on the location. Retail uses are those that provide goods and/or services directly to the consumer, including service uses not usually allowed within an office use.

25. Concession Stand – A permanent or semi-permanent structure for the sale and consumption of food and beverages, and water-related products, such as sunscreen, sunglasses, and other similar products. A concession stand may include outdoor seating areas. Indoor seating and associated circulation areas shall not exceed more than 10 percent of the gross floor area of the use, and it must be demonstrated to the City that the floor plan is designed to preclude the seating area from being expanded.

26. Conditional Uses – A use, development, or substantial development that is classified as a conditional use in KZC 83.170 or that is not classified within this chapter. Those activities identified as conditional uses or not classified in this chapter must be treated according to the review criteria established in WAC 173-27-160.

~~27. Convalescent Center—See Chapter 5 KZC.~~

28. Critical Areas – Critical areas include the following areas and ecosystems: (a) wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation areas (streams); (d) frequently flooded areas; and (e) geologically hazardous areas. Kirkland does not contain any critical aquifer recharge areas. Critical areas may also be referred to as sensitive areas.

29. Development – A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature that interferes with the normal public use of the surface of the waters overlying lands subject to Chapter 90.58 RCW at any state of water level. “Development” does not include dismantling or removing structures if there is no other associated development or re-development.

30. Dock – A structure that floats on the surface of the water, without piling supports, but that is attached to land. Typically used for boat moorage, swimming, public access, and other activities that require access to deep water.

~~31. Drainage Basin—A specific area of land drained by a particular Kirkland watercourse and its tributaries.~~

32. Dredging – The removal, displacement, or disposal of unconsolidated earth material such as sand, silt, gravel, or other submerged materials, from the bottom of water bodies, ditches, or natural wetlands; maintenance dredging and/or support activities are included in this definition.

33. Dry Land Boat Storage – A commercial service providing storage of boats and related equipment on the upland portion of a property.

~~34. Dwelling Unit, Attached—See Chapter 5 KZC.~~

~~35. Dwelling Unit, Detached—See Chapter 5 KZC.~~

~~36. Dwelling Unit, Stacked—See Chapter 5 KZC.~~

37. Ecological Functions – The work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments constituting the shoreline’s natural ecosystem.

38. Ecological Restoration – See “Restore.”

39. Ecologically Intact Shoreline – Those shoreline areas that retain the majority of their natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and intensive human uses.

40. Ecosystem-Wide Processes – The suite of naturally occurring physical and geological processes of erosion, transport, and deposition, and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat that are present and the associated ecological functions.

41. Ell – A terminal pier section oriented perpendicular to the pier walkway.

42. Feasible – An action, such as a development project, mitigation, or preservation requirement that meets all of the following conditions:

- a. Can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests that have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;
- b. Provides a reasonable likelihood of achieving its intended purpose; and
- c. Does not physically preclude achieving the project’s primary intended legal use.

The burden of proving infeasibility is on the applicant in cases where these guidelines require certain actions. In determining an action’s infeasibility, the City may weigh the action’s relative public costs and public benefits, considered in the short- and long-term time frames.

43. Ferry Terminal, Passenger-Only – A docking facility used in the transport of passengers across a body of water. A ferry terminal may include accessory parking facilities, ticketing booths, and other accessory uses or structures necessary for its operation. A passenger-only ferry terminal does not include provisions for the ferrying of vehicles.

44. Fill – The addition of soil, sand, rock, gravel, sediment, earth-retaining structure, or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the ground elevation or creates dry land.

45. Finger Pier – A narrow pier section projecting from the pier walkway, typically perpendicular to the walkway and located landward of an ell in order to form the nearshore side of a boatslip.

~~45.a Fish and Wildlife Habitat Conservation Area – Areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. These areas include:~~  
~~(a). Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;~~  
~~(b). Areas with which species of local importance have a primary association;~~  
~~(c). Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;~~  
~~(d). Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.~~

46. Float – A structure that floats on the surface of the water that is not attached to the shore, but that may be anchored to submerged land. Floats are typically used for swimming, diving and similar recreational activities.



47. Float Plane Landing and Moorage Facility – A place where commercially operated water-based passenger aircraft arrive and depart. May include accessory facilities, such as waiting rooms, ticketing booths and similar facilities. May be used for private or public purposes.

48. Floodplain – Synonymous with the 100-year floodplain and means the land susceptible to inundation with a one (1) percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulations maps or a reasonable method that meets the objectives of the Shoreline Management Act.

49. Forest Practices – Any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber.

~~50. Frequently Flooded Areas – All areas shown on the Kirkland Sensitive Areas Maps as being within a 100-year floodplain and all areas regulated by Chapter 21.56 KMC.~~

51. Gabions – Structures composed of masses of rocks or rubble held tightly together by wire mesh (typically) so as to form upright blocks or walls. Often constructed as a series of overlapping blocks or walls. Used primarily in retaining earth, steep slopes or embankments, to retard erosion or wave action, or as foundations for breakwaters or jetties.

~~52. Geologically Hazardous Areas – Landslide, erosion and seismic hazardous areas as defined in KZC 85.13 and in WAC 365-190-080(4).~~

53. Geotechnical Analysis – See “Geotechnical Report.”

54. Geotechnical Report – A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts on the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers (or geologists) who have professional expertise about the regional and local shoreline geology and processes.

55. Grading – The movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

56. Hard Structural Shoreline Stabilization – Shore erosion control practices using hardened structures that armor and stabilize the shoreline from further erosion. Hard structural shoreline stabilization typically uses concrete, boulders, dimensional lumber or other materials to construct linear, vertical or near-vertical faces that are located at or waterward of ordinary high water, as well as those structures located on average within five (5) feet landward of OHWM. These include bulkheads, rip-rap, groins, retaining walls and similar structures.

57. Helipad – A takeoff and landing area for helicopters.

58. Houseboat – A structure designed and operated substantially as a permanently based overwater residence. Houseboats are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel. They are typically served by permanent utilities and semi-permanent anchorage/moorage facilities.

~~59. Impervious Surface – A hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development; and/or a hard surface area that causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam, or other surfaces that similarly impede the natural infiltration of surface and storm water runoff. Open,~~

~~uncovered flow control or water quality treatment facilities shall not be considered impervious surfaces. Impervious surfaces do not include pervious surfaces as defined in this chapter.~~

60. Industrial Uses – Uses such as manufacturing, assembly, processing, wholesaling, warehousing, distribution of products and high technology.

61. In-Stream Structure – A structure placed by humans within a stream or river waterward of the OHWM that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose.

62. Joint-Use – Piers and floats that are constructed by more than one (1) contiguous waterfront property owner or by a homeowner's association or similar group.

63. Land Division – The division or redivision of land into lots, tracts, parcels, sites or divisions for the purpose of sale, lease, or transfer of ownership.

64. Land Surface Modification – The clearing or removal of shrubs, groundcover and other vegetation, excluding trees, and all grading, excavation and filling of materials.

65. Large Woody Debris – Trunks or branches of trees that have fallen in or been placed in a water body and serve the purposes of stabilization or habitat for fish and aquatic insects.

~~66. Low Impact Development – Low impact development (LID) is a set of techniques that mimic natural watershed hydrology by slowing, evaporating/transpiring, and filtering water that allows water to soak into the ground closer to its source. The development shall meet one (1) or more of the following objectives:~~

~~a. Preservation of natural hydrology.~~

~~b. Reduction of impervious surfaces.~~

~~c. Treatment of stormwater in numerous small, decentralized structures.~~

~~d. Use of natural topography for drainage ways and storage areas.~~

~~e. Preservation of portions of the site in undisturbed, natural conditions.~~

~~f. Reduction of the use of piped systems. Whenever feasible, site design should use multifunctional open drainage systems such as vegetated swales or filter strips that also help to fulfill vegetation and open space requirements.~~

~~g. Use of environmentally sensitive site design and green building construction that reduces runoff from structures, such as green roofs.~~

67. Marina – A private or public facility providing the purchase and/or lease of a slip for storing, berthing and securing motorized boats or watercraft, including both long-term and transient moorage. Marinas may include accessory facilities for providing incidental services to users of the marina, such as waste collection, boat sales or rental activities, and retail establishments providing fuel service, repair or service of boats.

68. May – The action is acceptable, provided it conforms to the provisions of the Shoreline Management Act, with the decision-maker having or using the ability to act or decide according to their own discretion or judgment.

~~69. Minor Improvements – Walkways, pedestrian bridges, benches, and similar features, as determined by the Planning Official, pursuant to KZC 83.500(4)(f) and 83.510(4)(f).~~

70. Moorage Buoy – A floating object, sometimes carrying a signal or signals, anchored to provide a mooring place away from the shore.

71. Moorage Facility – A pier, dock, marina, buoy or other structure providing docking or moorage space for boats or float planes, where permitted.

72. Moorage Pile – A piling to which a boat is tied up to prevent it from swinging with changes of wind or other similar functions.

73. Must – A mandate; the action is required.

74. Neighborhood-Oriented Retail Establishment – Small scale retail and service uses that provide primarily convenience retail sales and service to the surrounding residential neighborhood. The following is a nonexclusive list of neighborhood-oriented retail uses: small grocery store, drug store, hair salon, coffee shop, dry cleaner or similar retail or service uses.

75. Nonconforming Use ~~or Development~~ – A shoreline use ~~or development~~ that was lawfully ~~constructed or~~ established prior to the effective date of the Act or the applicable master program, or amendments thereto, but that does not conform to present regulations or policies of the program.

75a. Nonconforming development or nonconforming structure -- an existing structure that was lawfully constructed at the time it was built but is no longer fully consistent with present regulations such as setbacks, buffers or yards; area; bulk; height or density standards due to subsequent changes to the master program.

75b. Nonconforming use -- an existing shoreline use that was lawfully established prior to the effective date of the act or the applicable master program, but which does not conform to present use regulations due to subsequent changes to the master program.

75c. Nonconforming lot -- a lot that met dimensional requirements of the applicable master program at the time of its establishment but now contains less than the required width, depth or area due to subsequent changes to the master program.

76. Nonstructural Flood Hazard Reduction Measures – Improvements, actions or provisions that reduce flood hazard by nonstructural means, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures and surface water management programs.

77. Non-Water-Oriented Use – Uses that are not water-dependent, water-related, or water-enjoyment.

~~78. Ordinary High Water (OHW) Line – The OHW line is at an elevation of 21.8 feet for Lake Washington.~~

79. Ordinary High Water Mark (OHWM) – The mark that will be found on all lakes and streams by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation, as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology; provided, that in any area where the OHWM cannot be found, the OHWM adjoining fresh water shall be the line of mean high water, or as amended by the state. For Lake Washington, the OHWM corresponds with a lake elevation of 18.5 feet, based on the NAVD 88 datum.

80. Outfall – A structure used for the discharge of a stormwater or sewer system into a receiving water.

~~81. Pervious – As opposed to impervious surfaces, these are surfaces that allow water to pass through at rates similar to pre-developed conditions. Pervious surfaces include, but are not limited to: pervious asphalt, pervious concrete, pervious gravel, grass or pervious pavers.~~

82. Permitted Uses – Uses that are allowed within the applicable shoreline environment, provided that they must meet the policies, use requirements, and regulations of this chapter and any other applicable regulations of the City or state.

83. Pier – A structure that projects over and is raised above the water but is attached to land, and that is used for boat moorage, swimming, fishing, public access, float plane moorage, or similar activities requiring access to deep water.

~~83.a. Pier Bumpers – Vertical slats covered with rubber, plastic or other synthetic materials that extend from the pier deck to the water, generally permanent in nature, that are used to prevent a boat from drifting under a pier and located where a boat is permanently moored.~~

84. Pier Piling – The structural supports for piers, usually below the pier decking and ~~anchored~~ imbedded into the lake bed in the water.

85. Preserve – The protection of existing ecological shoreline processes or functions.

~~86. Primary Basins – The primary basins shown on the Kirkland Sensitive Areas Map.~~

87. Primary Structure – A structure housing the main or principal use of the lot on which the structure is situated, including a detached garage associated with the primary structure. This term shall not include decks, patios or similar improvements, and accessory uses, structures or activities as defined in Chapter 5 KZC.

88. Priority Habitat – A habitat type with unique or significant value to one (1) or more species as defined in WAC 173-26-020.

89. Priority Species – Species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels based on the criteria in WAC 173-26-020.

90. Public Access – The ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline.

91. Public Access Facility – A water-oriented structure, such as a trail, pier, pedestrian bridge, boat launch, viewing platform, or fishing pier that provides access for the public to or along the shoreline.

92. Public Access Pier or Boardwalk – An elevated structure that is constructed waterward of the OHWM and intended for public use.

93. Public Pedestrian Walkway – A portion of private property subject to an easement giving the public the right to stand on or traverse this portion of the property.

94. Public Use Area – A portion of private property that is dedicated to public use and that contains one (1) or more of the following elements: benches, tables, lawns, gardens, piers, exercise or play equipment or similar improvements or features. These elements are to provide the public with recreational opportunities in addition to the right to traverse or stand in this area.

~~95. Qualified Professional – An individual with relevant education and training, as determined by the Planning Official, and with at least three (3) years' experience in biological fields such as botany, fisheries, wildlife, soils, ecology, and similar areas of specialization, and including a professional wetland scientist.~~

96. Rain Garden – Rain gardens and bioretention areas are vegetation features adapted to provide on-site infiltration and treatment of stormwater runoff using soils and vegetation. They are commonly located within small pockets of residential land where surface runoff is directed into shallow, landscaped depressions; or in landscaped areas around buildings; or, in more urbanized settings, to parking lot islands and green street applications.

96.a Normal Maintenance or Repair - "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition, including but not limited to its size, shape, configuration, location and external appearance, within a reasonable time period after decay or partial destruction, except where repair causes a substantial adverse effect to shoreline resource or environment. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development including but not limited to its size, shape, configuration, location and external appearance and the

replacement does not cause substantial adverse effects to shoreline resources or environment. Examples of maintenance and repair include painting; repair of stairs, roof, siding, decking, and structural supports. Examples of replacement include replacement of siding, windows, or roofing; changing doors to windows and windows to doors; replacement of failing shoreline structures.

97. Recreational Use – Commercial and public facilities designed and used to provide recreational opportunities to the public.

98. Residential Use – Developments in which people sleep and prepare food, other than developments used for transient occupancy. As used in this chapter, residential development includes single-family development (known as detached dwelling units) and multifamily development (known as detached, attached or stacked dwelling units) and the creation of new residential lots through land division.

99. Restore – The re-establishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.

100. Restoration – See “Restore.”

101. Revetment – A shoreline protective structure constructed on a slope and used to prevent erosion.

102. Riparian Area – A transition area between the aquatic ecosystem and the adjacent upland area that supports a number of shoreline ecological functions and processes, including bank stability, the recruitment of woody debris, leaf litter fall, nutrients, sediment filtering, shade, habitat and other riparian features that are important to both riparian forest and aquatic system conditions.

103. Salmonid – A member of the fish family salmonidae, including chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; brook and Dolly Varden char, kokanee, and white fish.

~~104. Secondary Basins – The secondary basins depicted on the Kirkland Sensitive Areas Map.~~

105. Shall – Means a mandate; the action must be taken.

106. Shorelands – Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters that are subject to the provisions of the Shoreline Management Act; the same to be designated as to location by the Department of Ecology.

107. Shoreland Areas – See “Shorelands.”

108. Shoreline Functions – See “Ecological Functions.”

109. Shoreline Habitat and Natural Systems Enhancement Projects – Activities conducted for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines. The following is a nonexclusive list of shoreline habitat and natural systems enhancement projects: modification of vegetation, removal of nonnative or invasive plants, shoreline stabilization, dredging and filling; provided, that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

110. Shoreline Modification – Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element, such as a dike, breakwater, pier, dredged basin, fill, bulkhead, or other shoreline structure. They can include other actions, such as clearing, grading, or application of chemicals.

111. Shoreline Setback – The distance measured in feet that a structure or improvement must be located from the OHWM.

112. Shoreline Stabilization – Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion. Shoreline stabilization includes structural and nonstructural methods, riprap, bulkheads, gabions, jetties, dikes and levees, flood control weirs, and bioengineered walls or embankments.

113. Shorelines – All of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them: except (a) shorelines of statewide significance; (b) shorelines on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second or less and the wetlands associated with such upstream segments; and (c) shorelines on lakes less than 20 acres in size and wetlands associated with such small lakes.

114. Shorelines of Statewide Significance – Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of 1,000 acres or more measured at the OHWM and those natural rivers or segments thereof where the mean annual flow is measured at 1,000 cubic feet per second or more. Definition is limited to freshwater areas in Western Washington.

115. Should – Means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and the Shoreline Rules, against taking the action.

116. Sign, Interpretive – A permanent sign without commercial message, located on a publicly accessible site, that provides public educational and interpretive information related to the site on which the sign is located, such as information on natural processes, habitat restoration programs, or cultural history, or that is associated with an adopt-a-stream, adopt-a-park or similar agency-sponsored program.

~~117. Significant Tree – See Chapter 5 KZC.~~

118. Significant Vegetation Removal – The removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, burning, chemical means, or other activity that causes significant ecological impacts to functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.

119. Skirting – Vertical or horizontal boards along the edge of a pier extending downward.

120. Soft Structural Shoreline Stabilization Measures – Shore erosion control and restoration practices that contribute to restoration, protection or enhancement of shoreline ecological functions. Soft shoreline stabilization typically includes a mix of gravels, cobbles, boulders, logs and native vegetation placed to provide shore stability in a nonlinear, sloping arrangement.

~~121. Streams – Areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined channel swales. The channel or bed need not contain water year round. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel.~~

122. Structural Flood Hazard Reduction Measures – Improvements or activities that reduce flood hazard by structural means, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program.

123. Structural Shoreline Stabilization – Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion that incorporate structural methods, including both hard structural shoreline stabilization methods and soft structural shoreline stabilization measures.

124. Substantial Development – As defined in the Washington State Shoreline Management Act (SMA) found in Chapter 90.58 RCW, and WAC 173-27-030 and 173-27-040.

125. Transportation Facilities – Facilities that include street pavement, curb and cutter, sidewalk and landscape strip as regulated under Chapter 110 KZC.



126. Tour Boat Facility – A moorage pier designed for commercial tour boat usage.

127. Tree – A woody plant with one (1) main trunk at a minimum height of 12 feet measured from the existing ground at maturity, having a distinct head in most cases. The City’s Urban Forester shall have the authority to determine whether any specific woody plant shall be considered a tree or a shrub.

~~128. Upland – Generally described as the dry land area above and landward of the OHWM, but not including wetlands.~~

129. Utilities – Services, facilities and infrastructure that produce, transmit, carry, store, process or dispose of electric power, gas, water, sewage, communications, oil, storm water, and similar services and facilities.

130. Utility Production and Processing Facilities – Facilities for the making or treatment of a utility, such as power plants and sewage treatment plants ~~or parts of those facilities.~~

131. Utility Transmission Facilities – Infrastructure and facilities for the conveyance of services, such as ~~power lines~~ electrical transmission lines operating at 115kv or higher, cables, ~~and natural gas~~ pipelines operating at 60 psi or greater, and sewer pump lift stations.

132. View Corridor – An open area of the subject property that provides views unobstructed by structures and across the subject property from the adjacent right-of-way to Lake Washington.

133. Water-Dependent Use – A use or portion of a use that cannot exist in a location that is not adjacent to the water and that is dependent on the water by reason of the intrinsic nature of its operation.

134. Water-Enjoyment Use – A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and that through location, design, and operation ensures the public’s ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-oriented space within the project must be devoted to the specific aspects of the use that foster shoreline enjoyment.

135. Water-Oriented Use – A use that is water-dependent, water-related, or water-enjoyment or a combination of such uses.

136. Water Quality – The physical characteristics of water within shorelines jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. Where used in this chapter, the term “water quantity” refers only to development and uses regulated under this chapter and affecting water quantity, such as impermeable surfaces and storm water handling practices. Water quantity, for purposes of this chapter, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through 90.03.340.

137. Water-Related Use – A use or portion of a use that is not intrinsically dependent on a waterfront location, but whose economic viability is dependent upon a waterfront location because:

- a. The use has a functional requirement for a waterfront location, such as the arrival or shipment of materials by water or the need for large quantities of water; or
- b. The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes its services less expensive and/or more convenient.

~~138. Watershed – A region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water.~~

139. Watershed Restoration Plan – A plan, developed or sponsored by the State Department of Fish and Wildlife, the State Department of Ecology, the State Department of Natural Resources, the State Department of Transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation,

restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to Chapter 43.21C RCW, the State Environmental Policy Act.

140. Watershed Restoration Project – A public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one (1) or more of the following activities:

- a. A project that involves less than 10 miles of streamreach, in which less than 25 cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;
- b. A project for the restoration of an eroded or unstable streambank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or
- c. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state; provided, that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than 200 square feet in floor area and is located above the OHWM of the stream.

141. Water Taxi – A boat used to provide public transport for passengers, with service scheduled with multiple stops or on demand to many locations. A water taxi does not include accessory facilities, such as ticketing booths, and does not include the transport of vehicles.

~~142. Wetlands—Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soils conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass lined swales, canals, retention and/or detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990 (adoption date of GMA), that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands do include those artificial wetlands intentionally created from nonwetland sites as mitigation for the conversion of wetlands.~~

~~143. Wetland Rating—Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington (Department of Ecology 2004, or as revised). This document contains the definitions, methods, and a rating form for determining the categorization of wetlands below:~~

- ~~a. Category I wetlands are those that 1) represent a unique or rare wetland type; or 2) are more sensitive to disturbance than most wetlands; or 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or 4) provide a high level of functions. Category I wetlands include Natural Heritage wetlands, bogs, mature and old growth forested wetlands, and wetlands that score at least 70 points on the rating form.~~
- ~~b. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection. Category II wetlands score between 51 and 69 points on the rating form.~~
- ~~c. Category III wetlands have a moderate level of function, scoring between 30 and 50 points on the rating form.~~
- ~~d. Category IV wetlands have the lowest levels of functions (scores less than 30 points on the rating form) and are often heavily disturbed. These are wetlands that can often be replaced, and in some cases improved. However, replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions and also need to be protected.~~

## **Shoreline Environment Designations and Statewide Significance**

### **83.90 Shorelines Jurisdiction and Official Shoreline Map**

#### **1. Shoreline Map**

a. The adopted Shoreline Environment Designations Map is the graphic representation of the City's shorelines that are regulated by this chapter. The map, or set of maps, entitled City of Kirkland Shoreline Environment Designation Map and adopted by ordinance is hereby adopted as part of this code. See Chapter 141 KZC for information regarding amending this map.

b. The adopted shoreline map identifies shoreline environment designations and the extent of shorelines jurisdiction.

1) Extent of Shorelines Jurisdiction – The shorelines jurisdiction as depicted on the adopted Shoreline Environment Designations Map is intended to depict the approximate location and extent of known shorelands. In determining the exact location of shorelines jurisdiction, the criteria contained in RCW 90.58.030(2) shall be used. For Lake Washington, the OHWM corresponds with a lake elevation of 18.5 feet, based on the NAVD 88 datum. The extent of shorelines jurisdiction on any individual lot, parcel or tract is to be determined by a field investigation and a survey and is the sole responsibility of the applicant. The location of the OHWM shall be included in shoreline permit application submittals to determine the extent of shorelines jurisdiction for review and approval by the Planning Official.

2) Interpretation of Shoreline Environment Designations – The following shall be used to interpret the boundary of shoreline environment designations:

a) Following Property Lines – Where a shoreline environment designation boundary is indicated as approximately following a property line, the property line is the shoreline environment designation boundary.

b) Following Streets – Where a shoreline environment designation boundary is indicated as following a street, the midpoint of the street right-of-way is the shoreline environment designation boundary, except as follows:

1) The portion of the public right-of-way known as 98th Avenue NE located within 200 feet of the OHWM is designated wholly as Urban Mixed.

2) Waterfront street ends, where the public right-of-way is designated wholly under one (1) shoreline environment.

c) Wetlands – Where an associated wetland boundary extends beyond the area depicted on the Shoreline Environment Designation Map, the additional wetland area shall be designated as the same shoreline environment as the adjoining wetland area located on the shoreline map.

d) Lakes – The aquatic environment designation boundary extends into Lake Washington to the full limit and territorial extent of the police power, jurisdiction and control of the City of Kirkland.

e) Other Cases – Where a shoreline environment designation boundary is not indicated to follow a property line or street, the boundary line is as follows:

1) The transition of the shoreline environment designation from Urban Conservancy to Urban Mixed at Juanita Beach Park occurs at a point measured 75 feet east of the OHWM of Juanita Creek.

2) The transition of the shoreline environment designation from Urban Conservancy to Urban Residential west of Juanita Beach Park occurs at a point measured 75 feet west of the OHWM of Juanita Creek.

- f) Classification of Vacated Rights-of-Way – Where a right-of-way is vacated, the area comprising the vacated right-of-way will acquire the classification of the property to which it reverts.
- g) Undesignated Properties – Any shoreline areas not mapped and/or designated shall be assigned an Urban Conservancy designation, except wetlands as noted in subsection (1)(b)(2)(c) of this section.

2. Shoreline Environment Designations

- a. KZC 83.100 through 83.150 establish the six (6) shoreline environment designations used in the City of Kirkland and their respective purposes, designation criteria, and management policies. KZC 83.180 through 83.560 then establish the different regulations that apply in these different environmental designations.
- b. The management policies contained in the shoreline chapter of the Comprehensive Plan shall be used to assist in the interpretation of these regulations.

(Ord. 4251 § 3, 2010)

**83.100 Natural**

1. Purpose – To protect and restore those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. The Natural shoreline environment also protects shoreline areas possessing natural characteristics with scientific and educational interest. These systems require restrictions on the intensities and types of land uses permitted in order to maintain the integrity of the ecological functions and ecosystem-wide processes of the shoreline environment.

2. Designation Criteria – A Natural shoreline environment designation should be assigned to shoreline areas if any of the following characteristics apply:

- a. The shoreline is ecologically intact and, therefore, currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity;
- b. The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or
- c. The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.

(Ord. 4251 § 3, 2010)

**83.110 Urban Conservancy**

1. Purpose – To protect and restore ecological functions of open space, floodplain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.

2. Designation Criteria – An Urban Conservancy shoreline environment designation should be assigned to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring the ecological functions of the area, that are not generally suitable for water-dependent uses and that lie in incorporated municipalities or urban growth areas if any of the following characteristics apply:

- a. They are suitable for water-related or water-enjoyment uses;
- b. They are open space, floodplain or other sensitive areas that should not be more intensively developed;
- c. They have potential for ecological restoration;
- d. They retain important ecological functions, even though partially developed; or
- e. They have the potential for development that is compatible with ecological restoration.

(Ord. 4251 § 3, 2010)

### **83.120 Residential – L**

1. Purpose – To accommodate low-density residential development and appurtenant structures that are consistent with this chapter.
2. Designation Criteria – A Residential – L shoreline environment designation should be assigned to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, and incorporated municipalities if they are predominantly single-family residential development or are planned and platted for low-density residential development, unless these areas meet the designation criteria for the Natural shoreline environment designation.

(Ord. 4251 § 3, 2010)

### **83.130 Residential – M/H**

1. Purpose – To accommodate medium and high-density residential development and appurtenant structures that are consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses, as well as limited water-oriented commercial uses that depend on or benefit from a shoreline location.
2. Designation Criteria – A Residential – M/H shoreline environment designation should be assigned to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, and incorporated municipalities if they are predominantly multifamily residential development or are planned and platted for medium or high-density residential development, unless these properties meet the designation criteria for the Natural or Urban Conservancy shoreline environment designation.

(Ord. 4251 § 3, 2010)

### **83.140 Urban Mixed**

1. Purpose – To provide for high-intensity land uses, including residential, commercial, recreational, transportation and mixed-use developments. The purpose of this environment is to ensure active use of shoreline areas that are presently urbanized or planned for intense urbanization, while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.
2. Designation Criteria – An Urban Mixed shoreline environment designation should be assigned to shoreline areas within incorporated municipalities and urban growth areas if they currently support high-intensity uses related to commerce, transportation or navigation; or are suitable and planned for high-intensity water-oriented uses.

(Ord. 4251 § 3, 2010)

### **83.150 Aquatic**

1. Purpose – To protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM.
2. Designation Criteria – An Aquatic shoreline environment designation should be assigned to lands waterward of the OHWM.

(Ord. 4251 § 3, 2010)

## **Uses and Activities in the Shoreline Environment**

### **83.160 User Guide**

1. Explanation of Uses Table – The table contained in KZC 83.170 identifies uses and activities and defines whether those uses are prohibited, permitted by application for exemption or shoreline substantial development permit, or permitted by a shoreline conditional use permit. The Shoreline Management Act (SMA) establishes three types of shoreline permits: substantial development permit, conditional use permit, and variance permit. Proposals for development and activities within shoreline jurisdiction may require one, two, or all of those permits – or none at all. When a substantial development permit and a conditional use or variance permit are required for a development, the permits shall be issued concurrently. If a use is not specifically listed, then it may be considered through a shoreline conditional use permit (see Chapter 141 KZC). The following symbols apply:

- a. “X” means that the use or activity is prohibited in the identified Shoreline Environment. Shoreline uses, activities, or conditions listed as prohibited shall not be authorized through a variance, conditional use permit, or any other permit or approval.
  - b. “SD” means that the use or activity may be permitted by approval of the Planning Official through a letter of shoreline exemption (see Chapter 141 KZC) or through a shoreline substantial development permit (see Chapter 141 KZC).
  - c. “CU” means that the use or activity may be permitted by approval of the Planning Official and Department of Ecology through a shoreline conditional use permit (see Chapter 141 KZC). Uses that are not specifically prohibited under KZC 83.170 may be authorized through a shoreline conditional use permit. ~~A conditional use permit must also meet criteria for a substantial development permit.~~
  - d. Shoreline variances (see Chapter 141 KZC) are intended only to grant relief from specific bulk, dimensional or performance standards in this chapter, not to authorize shoreline uses and activities. They are therefore not included in KZC 83.170.
2. See KZC 83.370 for federal and state approval.
  3. If a use is permitted under KZC 83.170 but is not permitted under Chapters 5 through ~~60~~56 KZC for those zones within the shorelines jurisdiction, then the more restrictive use standard shall apply.

(Ord. 4251 § 3, 2010)



**83.170 Shoreline Environments, Permitted and Prohibited Uses and Activities Chart**

The chart is coded according to the following legend.							
SD	=	Substantial Development <sup>1</sup>					
CU	=	Conditional Use					
X	=	Prohibited; the use is not eligible for a Variance or Conditional Use Permit					
Footnotes listed at end of KZC 83.170 (end of chart)							
<b>SHORELINE USE</b>							
<b>Resource Land Uses</b>							
Agriculture		X	X	X	X	X	X
Aquaculture		X	X	X	X	X	X
Forest practices		X	X	X	X	X	X
Mining		X	X	X	X	X	X
<b>Commercial Uses</b>							
<b>Water-dependent uses</b>							
Float plane landing and mooring facilities <sup>2</sup>		X	X	X	X	CU	See adjacent upland environments
Any water-dependent retail establishment other than those specifically listed in this chart, selling goods or providing services		X	SD <sup>3</sup>	X	X	SD	See adjacent upland environments
<b>Water-related, water-enjoyment commercial uses</b>							
Any water-oriented retail establishment other than those specifically listed in this chart, selling goods or providing services		X	SD <sup>3</sup>	X	X	SD	X
Retail establishment providing new or used boat sales or rental		X	SD <sup>3</sup>	X	CU <sup>4,6</sup>	SD <sup>5</sup>	See adjacent upland environments
Retail establishment providing gas and oil sale for boats		X	X	X	CU <sup>4,6</sup>	CU <sup>6</sup>	See adjacent upland environments
Retail establishment providing boat and motor repair and service		X	X	X	CU <sup>4,6</sup>	CU <sup>6</sup>	X

<p>The chart is coded according to the following legend.</p> <p>SD = Substantial Development<sup>1</sup></p> <p>CU = Conditional Use</p> <p>X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit</p> <p>Footnotes listed at end of KZC 83.170 (end of chart)</p>			Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed	Aquatic
Restaurant or tavern <sup>7</sup>			X	X	X	CU <sup>4</sup>	SD	X
Concession stand			X	SD <sup>3</sup>	X	X	SD <sup>3</sup>	X
Entertainment or cultural facility			X	CU <sup>8</sup>	X	X	SD	X
Hotel or motel			X	X	X	CU/X	SD	X
<b>Nonwater-oriented uses</b>								
Any retail establishment other than those specifically listed in this chart, selling goods, or providing services including banking and related services			X	X	X	X	SD <sup>10</sup>	X
Office uses			X	X	X	X	SD <sup>10</sup>	X
Neighborhood-oriented retail establishment			X	X	X	CU <sup>11</sup>	SD <sup>10</sup>	X
Private lodge or club			X	X	X	X	SD <sup>10</sup>	X
Vehicle service station			X	X	X	X	X	X
Automotive service center			X	X	X	X	X	X
Dry land boat storage			X	X	X	X	X	X
<b>Industrial Uses</b>								
<b>Water-dependent uses</b>			X	X	X	X	X	X
<b>Water-related uses</b>			X	X	X	X	X	X
<b>Non-water-oriented uses</b>			X	X	X	X	X	X
<b>Recreational Uses</b>								

The chart is coded according to the following legend.								
SD	=	Substantial Development <sup>1</sup>						
CU	=	Conditional Use						
X	=	Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Footnotes listed at end of KZC 83.170 (end of chart)								
Water-dependent uses								
Marina <sup>12</sup>			X	CU	X	SD	SD	See adjacent upland environments
Piers, docks, boat lifts and canopies serving detached dwelling unit <sup>12</sup>			X	X	SD	SD	SD <sup>13</sup>	
Piers, docks, boat lifts and canopies serving detached, attached or stacked dwelling units <sup>12</sup>			X	X	X	SD	SD	
Float			X	SD <sup>3</sup>	X	X	SD <sup>3</sup>	
Tour boat facility			X	X	X	X	SD <sup>14</sup>	
Moorage buoy <sup>12</sup>			X	SD	SD	SD	SD	
Public access pier or boardwalk			CU	SD	SD	SD	SD	
Boat launch/new (for motorized boats) or for expansion of existing boat launch for motorized boats.			X	X	X	X	CU	
Boat launch (for nonmotorized boats)			SD	SD	SD	SD	SD	
Boat houses or other covered moorage not specifically listed			X	X	X	X	X	
Swimming beach and other public recreational use			CU	SD	SD	SD	SD	
Any water-dependent recreational development other than those specifically listed in this chart			CU	SD	SD	SD	SD	
Water-related, water-enjoyment uses								
Any water-oriented recreational development other than those specifically listed in this chart			X	CU	CU	CU	SD	X
Other public park improvements <sup>15</sup>			CU	SD	SD	SD	SD	X

The chart is coded according to the following legend.								
SD	=	Substantial Development <sup>1</sup>	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed	Aquatic
CU	=	Conditional Use						
X	=	Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Footnotes listed at end of KZC 83.170 (end of chart)								
Public access facility			SD <sup>16</sup>	SD	SD	SD	SD	See adjacent upland environments
Non-water-oriented uses								
Nonwater-oriented recreational development			X	X	X	X	SD <sup>10</sup>	X
Residential Uses								
Detached dwelling unit			CU	CU	SD	SD	SD <sup>13</sup>	X
Accessory dwelling unit <sup>17</sup>			X	X	SD	SD	SD <sup>13</sup>	X
Detached, attached or stacked dwelling units (multifamily units on one (1) lot)			X	X	X	SD	SD	X
Houseboats			X	X	X	X	X	X
Assisted living facility <sup>18</sup>			X	X	X	CU	SD	X
Convalescent center or nursing home			X	X	X	CU <sup>19</sup>	SD <sup>20</sup>	X
Land division			SD <sup>21</sup>	SD <sup>21</sup>	SD	SD	SD	X
Institutional Uses								
Government facility			X	SD	SD	SD	SD	X
Community facility			X	X	X	X	SD	X
Church			X	X	X	CU <sup>19</sup>	SD <sup>20</sup>	X
School or day-care center			X	X	X	CU <sup>19</sup>	SD <sup>10</sup>	X
Mini-school or mini-day-care center			X	X	X	SD <sup>19</sup>	SD <sup>10</sup>	X

The chart is coded according to the following legend.								
SD	=	Substantial Development <sup>1</sup>	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed	Aquatic
CU	=	Conditional Use						
X	=	Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Footnotes listed at end of KZC 83.170 (end of chart)								
Transportation								
Water-dependent								
Bridges		CU	CU	SD	SD	SD	See adjacent upland environments	
Passenger-only ferry terminal		X	X	X	X	CU		
Water taxi		X	SD <sup>22</sup>	SD <sup>22</sup>	SD <sup>22</sup>	SD <sup>22</sup>		
Non-water-oriented								
Arterials, collectors, and neighborhood access streets		CU	SD <sup>23</sup> /CU	SD	SD	SD	X	
Helipad		X	X	X	X	X	X	
Utilities								
Utility production and processing facilities		X	CU <sup>24</sup>	CU <sup>24</sup>	CU <sup>24</sup>	CU <sup>24</sup>	X	
Utility transmission facilities		CU <sup>24</sup>	SD <sup>24</sup>	SD <sup>24</sup>	SD <sup>24</sup>	SD <sup>24</sup>	CU <sup>24</sup>	
Personal wireless service facilities <sup>25</sup>		X	SD	SD	SD	SD	X	
Radio towers		X	X	X	X	X	X	
Shoreline Modifications								
Breakwaters/jetties/rock weirs/groins		X	X	X	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	See adjacent upland environments	
Dredging and dredge materials disposal		SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU		
Fill waterward of the OHWM		SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU		
Land surface modification		SD <sup>26</sup> /CU	SD	SD	SD	SD		

The chart is coded according to the following legend.			Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed	Aquatic
SD	=	Substantial Development <sup>1</sup>						
CU	=	Conditional Use						
X	=	Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Footnotes listed at end of KZC 83.170 (end of chart)								
Shoreline habitat and natural systems enhancement projects			SD	SD	SD	SD	SD	
Hard structural shoreline stabilization			X	CU	SD	SD	SD	
Soft structural shoreline stabilization measures			X	SD	SD	SD	SD	

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemptions. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and Chapter 83 KZC.

<sup>2</sup> Limited to water-based aircraft facilities for air charter operations.

<sup>3</sup> Permitted as an accessory use to a public park.

<sup>4</sup> Permitted if located on the west side of Lake Washington Boulevard NE/Lake Street South, south of Lake Avenue West and north of NE 52nd Street, and south of NE Juanita Drive.

<sup>5</sup> Permitted in the Juanita Business District or as an accessory use to a marina.

<sup>6</sup> Accessory to a marina only.

<sup>7</sup> Drive-in or drive-through facilities are prohibited.

<sup>8</sup> Use must be open to the general public.

<sup>9</sup> *Repealed by Ord. 4302.*

<sup>10</sup> Permitted as part of mixed-use development containing water-dependent uses (excluding moorage buoys or floats), where there is intervening development between the shoreline and the use, or if located on the east side of Lake Washington Boulevard NE/Lake Street South or the east side of 98th Avenue NE.

<sup>11</sup> Permitted if located on the east side of Lake Washington Boulevard NE between NE 60th Street and 7th Avenue South.

<sup>12</sup> No boat shall be used as a place of habitation.

<sup>13</sup> Permitted if located south of NE 60th Street only.

<sup>14</sup> Permitted as an accessory use to a marina or public park only.



<sup>15</sup> This use does not include other public recreational uses or facilities specifically listed in this chart.

<sup>16</sup> Limited to trails, viewpoints, interpretative signage and similar passive and low-impact facilities.

<sup>17</sup> One (1) accessory dwelling unit (ADU) is permitted subordinate to a detached dwelling unit.

<sup>18</sup> A nursing home use may be permitted as part of an assisted living facility use.

<sup>19</sup> Permitted if located on the east side of Lake Washington Boulevard NE/Lake Street South, the east side of 98th Avenue NE or north of NE Juanita Drive.

<sup>20</sup> Not permitted in the Central Business District. Otherwise, permitted if located on the east side of Lake Washington Boulevard NE/Lake Street South, the east side of 98th Avenue NE or on the south side of NE Juanita Drive.

<sup>21</sup> May not create any new lot that would be wholly contained within shoreland area in this shoreline environment.

<sup>22</sup> Permitted as an accessory use to a marina or a public park.

<sup>23</sup> Construction of pedestrian and bicycle facilities only.

<sup>24</sup> This use may be allowed provided there is no other feasible route or location. Must be underground unless not feasible.

<sup>25</sup> Wireless towers are not permitted.

<sup>26</sup> Permitted under a substantial development permit when associated with certain shoreline stabilization measures, and habitat and natural system enhancement projects. See KZC 83.300(10) and 83.350.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

## **Use Specific Regulations**

### **83.180 Shoreline Development Standards**

1. General
  - a. See KZC 83.40 for relationship to other codes and ordinances.
  - b. Development standards specified in this chapter shall not extend beyond the geographic limit of the shoreline jurisdiction, except as noted in the provisions contained below.
2. Development Standards Chart
  - a. The following chart establishes the minimum required dimensional requirements for development. At the end of the chart are footnotes pertaining to certain uses and activities.
  - b. KZC 83.170 contains an overview of the activities permitted under each of the use classifications contained in the development standards chart.
  - c. KZC 83.180 through KZC 83.560 contain additional standards for the uses and activities, including provisions for no net loss and mitigation sequencing in KZC 83.360 and federal and state approval in KZC 83.370.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
<b>Residential Uses</b>						
Detached Dwelling Units and Accessory Dwelling Units						
Minimum Lot Size	n/a	12,500 sq. ft.	12,500 sq. ft.	<p>R-L (A) and (B) environments: 12,500 sq. ft. except for the following:</p> <ul style="list-style-type: none"> <li>• 5,000 sq. ft. if located on east side of Lake St. S., at 7th Ave S.; and</li> <li>• 7,200 sq. ft. to 12,500 sq. ft. if located on east side of Lake Washington Blvd. NE between NE 48th St. and NE 43rd St.; and</li> <li>• 7,200 sq. ft. if subject to the historic preservation provisions of KMC 22.28.048</li> </ul> <p>R-L (C) through (J) environments:</p> <ul style="list-style-type: none"> <li>• RSA 4 zone: maximum of 4 dwelling units per acre</li> <li>• RSA 6 zone: maximum of 6 dwelling units per acre</li> <li>• RSA 8 zone: maximum of 8 dwelling units per acre</li> </ul>	<p>R-M/H (A) environment: 3,600 sq. ft., except 1,800 sq. ft. south of NE Juanita Drive</p> <p>R-M/H (B) environment: 1,800 sq. ft.</p>	3,600 sq. ft.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	n/a	30% of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet, except as otherwise specifically allowed through this chapter.	Outside of shorelines jurisdictional area, if feasible, otherwise 50'.	Residential – L (R-L) shoreline setbacks shall be as follows, except as otherwise specifically allowed through this chapter: <ul style="list-style-type: none"> <li>• R-L (A) Average adjacent setback of primary structures but not less than 15 ft. See KZC 83.190(2) for additional regulations.</li> <li>• R-L (B) 30% of the average parcel depth but not less than 30 ft. and not required to be greater than 60 ft.</li> <li>• R-L (C) 25% of average parcel depth but not less than 30 ft. and not required to be greater than 60 ft.</li> <li>• R-L (D) 15% of average parcel depth but not less than 25 ft. and not required to be greater than 80 ft.</li> </ul>	R-M/H (A) environment: The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45 minimum.	The greater of: a. 25' or b. 15% of the average parcel depth.
Shoreline Setback <sup>1</sup> (continued)				<ul style="list-style-type: none"> <li>• R-L (E) 30% of average parcel depth but not less than 30 ft. and not required to be greater than 80 ft.</li> <li>• R-L (F) 15% of average parcel depth but not less than 15 ft.</li> </ul>		

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
				<ul style="list-style-type: none"> <li>R-L (G) 20% of average parcel depth but not less than 30 ft. and not required to be greater than 60 ft.</li> <li>R-L (H) 25% of average parcel depth but not less than 30 ft. and not required to be greater than 80 ft.</li> <li>R-L (I) 20% of average parcel depth but not less than 25 ft.</li> <li>R-L (J) 15 ft. minimum.</li> </ul>		
Shoreline Setback <sup>1</sup> (continued)				<p>For properties containing non-conforming primary structures in the R-L (C) through R-L (I) shoreline environments, the average parcel depth percentage may be reduced by 5 percentage points, provided the following conditions are met:</p> <ul style="list-style-type: none"> <li>The nonconforming structure must have been constructed prior to June 1, 2011, the date of annexation, based on the date of issuance of the occupancy permit;</li> <li>The minimum setback standard is met for the shoreline environment; and</li> </ul>		

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup> (continued)				<ul style="list-style-type: none"> <li>The required vegetation in the shoreline setback under KZC 83.400(3)(b) shall be increased from an average of 10 feet in depth from the OHWM to an average of 20 feet in depth from the OHWM. The vegetated portion may be a minimum of 10 feet in depth to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 20-foot-wide area.</li> </ul>		
Maximum Lot Coverage	n/a	50%	50%	50%	80%	80%, except in CBD zone 100% less area for shoreline vegetation if required.
Maximum Height of Structure <sup>2</sup>	n/a	25' above ABE <sup>3</sup>	35' above ABE	30' above ABE	35' above ABE	35' above ABE
Other Residential Uses (Attached, Stacked, and Detached Dwelling Units/multifamily; Assisted Living Facility; Convalescent Center or Nursing Home)						
Maximum Density <sup>4</sup>	n/a	n/a	n/a	n/a	R-M/H (A) environment: 3,600 sq. ft./unit, except 1,800 sq. ft./unit for up to 2 dwelling units if the public access provisions of KZC 83.420 are met.	No minimum lot size in the CBD or BN zones; otherwise 1,800 sq. ft./unit.





DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback <sup>1</sup>	n/a	n/a	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shorelines jurisdictional area, if feasible, otherwise 50'.	n/a	R-M/H (A) environment: The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45' minimum.	The greater of: a. 25' or b. 15% of the average parcel depth. In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a master plan shall comply with the master plan provisions.
Maximum Lot Coverage	n/a	n/a	50%	n/a	80%	80%, except in the CBD. In CBD, 100% less area for shoreline vegetation if required.
Maximum Height of Structure <sup>2</sup>	n/a	n/a	If adjoining the Residential-L (A) or (B) environment, then 25' above ABE. Otherwise, 30' above ABE. <sup>3</sup>	n/a	RM-L (A) environment: 30' above ABE <sup>5</sup> . RM-L (B) environment: 35' above ABE.	41' above ABE, except for: <ul style="list-style-type: none"> <li>In the CBD zones, if located on the east side of Lake St. S., 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property.</li> <li>In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a master plan shall comply with the master plan provisions.<sup>6</sup></li> </ul>
<b>Recreational Uses</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	n/a	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shoreline area, if feasible, otherwise 50'.	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shorelines jurisdictional area, if feasible, otherwise 50'.	Same as Detached Dwelling Units uses.	R-M/H (A) environment: The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45' minimum.	<b><u>Water-dependent uses: 0', Water-related use: 25',</u></b> <b><u>Other uses: The greater of:</u></b> <b>a. 25' or</b> <b>b. 15% of the average parcel depth.</b> <b>In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.</b>
Maximum Lot Coverage	n/a	10%	30%	30%	80%	80%, except in CBD zone. In CBD, 100% less area for shoreline vegetation if required.
Maximum Height of Structure <sup>2</sup>	n/a	25' above ABE	If adjoining the Residential – L (A) or (B) environment, then 25' above ABE. Otherwise, 30' above ABE <sup>3</sup> .	R-L (A) and (B) environments: 25' above ABE. R-L (C) through (J) environments: 30' above ABE.	R-M/H (A) and (B) environment: 30' above ABE <sup>4</sup> . R-M/H (B) environment: 35' above ABE.	41' above ABE, except for the following: <ul style="list-style-type: none"> <li>In the CBD zones, if located on the east side of Lake St. S., 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property.</li> <li>In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.</li> </ul>
<b>Institutional Uses</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback <sup>1</sup>	n/a	n/a	Outside of shorelines	Same as Detached Dwelling Units uses.	R-M/H (A) environment:	The greater of: a. 25' or

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
			jurisdictional area, if feasible, otherwise 50'.		The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45' minimum.	b. 15% of the average parcel depth.
Maximum Lot Coverage	n/a	n/a	50%	50%	80%	80%, except in CBD zone. In CBD, 100% less area for shoreline vegetation if required.
Maximum Height of Structure <sup>2</sup>	n/a	n/a	If adjoining the Residential – L (A) or (B) environment, then 25' above ABE. Otherwise, 30' above ABE <sup>3</sup> .	R-L (A) and (B) environments: 25' above ABE. R-L (C) through (J) environments: 30' above ABE.	R-M/H (A) environment: 30' above ABE <sup>5</sup> . R-M/H (B) environment: 35' above ABE.	41' above ABE, except in the CBD zones, if located on the east side of Lake St. S., 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property.
<b>Transportation Facilities</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback <sup>1</sup>	n/a	n/a	Outside of shorelines jurisdictional area, if feasible, otherwise 50'.	Same as Detached Dwelling Units uses.	R-M/H (A) environment: The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45' minimum.	The greater of: a. 25' or b. 15% of the average parcel depth.
Maximum Lot Coverage	n/a	n/a	n/a	n/a	n/a	n/a
Maximum Height of Structure <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a
<b>Utilities</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1,7</sup>	n/a	Outside of shoreline area, if feasible, otherwise 50'.	Outside of shoreline jurisdictional area, if feasible, otherwise 50'.	Same as Detached Dwelling Units uses.	R-M/H (A) environment: The greater of: a. 25' or b. 15% of the average parcel depth. R-M/H (B) environment: 45' minimum.	The greater of: a. 25' or b. 15% of the average parcel depth.
Maximum Lot Coverage	n/a	5%	30%	50%	80%	80%, except in CBD zone. In CBD, 100% less area for shoreline vegetation if required.
Maximum Height of Structure <sup>2</sup>	n/a	25' above ABE	If adjoining the Residential – L (A) or (B) environment, then 25' above ABE. Otherwise, 30' above ABE <sup>3</sup> .	R-L (A) and (B) environments: 25' above ABE. R-L (C) through (J) environments: 30' above ABE.	R-M/H (A) environment: 30' above ABE. R-M/H (B) environment: 35' above ABE <sup>5</sup> .	41' above ABE, except: <ul style="list-style-type: none"> <li>In the CBD zones if located on the east side of Lake St. South, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property.</li> <li>In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.<sup>5</sup></li> </ul>

Footnotes listed at end of KZC 83.180 (end of chart)

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see KZC [83.500 and 83.510](#) [Chapter 90](#).

<sup>2</sup> The height limit applies to that portion of the building physically located within the shoreline jurisdiction. Permitted increases in building height are addressed in KZC 83.190(4).

<sup>3</sup> Structure height may be increased to 30 feet above ABE in the Natural shoreline environment. See KZC 83.190(4)(c)(1).

<sup>4</sup> For density purposes two (2) assisted living units shall constitute one (1) dwelling unit.

<sup>5</sup> Structure height may be increased to 35 feet above ABE. See KZC 83.190(4).

<sup>6</sup> See KZC 83.190(4) for height in Master Plan.

<sup>7</sup> Storm water outfalls may be within the shoreline setback.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.190 Lot Size or Density, Shoreline Setback, Lot Coverage and Height**

#### **1. Calculation of Minimum Lot Size or Maximum Density**

- a. Development shall not use lands waterward of the OHWM to determine minimum lot size or to calculate allowable maximum density.
- b. For properties that are only partially located within the shoreline jurisdiction, the allowed density within the shoreline jurisdiction shall be based upon the land area located within the shoreline jurisdiction only. If dwelling units will be partially located within the shoreline jurisdiction, the City may approve an increase in the actual number of units in the shoreline jurisdiction; provided, that the total square footage of the units within the shoreline jurisdiction does not exceed the allowed density multiplied by the average unit size in the proposed development on the subject property.
- c. If a maximum density standard is used, the number of permitted dwelling units shall be rounded up to the next whole number (unit) if the fraction of the whole number is at least 0.50.
- d. For detached dwelling units, the provisions addressing lot size, lot size averaging, and historic preservation contained in Chapter 22.28 KMC shall apply within the shoreline jurisdiction.

#### **2. Shoreline Setback**

- a. General – This section establishes what structures, improvements, and activities may be in or take place in the shoreline setback established for each use in each shoreline environment.
- b. Measurement of Shoreline Setback
  - 1) The shoreline setback shall be measured landward from the OHWM on the horizontal plane and in the direction that results in the greatest dimension from the OHWM (see Plate 41).
  - 2) In those instances where the OHWM moved further upland pursuant to any action required by this chapter, or in accordance with permits involving a shoreline habitat and natural systems enhancement project approved by the City, a state or federal agency, the shoreline setback shall be measured from the location of the OHWM that existed immediately prior to the action or enhancement project.
  - 3) For those properties located in the R-L (A) shoreline environment, the shoreline setback standard shall be as follows:
    - a) If dwelling units exist immediately adjacent to either side of the subject property, then the shoreline setback of the primary structure on the subject property is the average of the shoreline setback of the primary structures of the two (2) adjacent dwelling units, but at a minimum width of 15 feet. The shoreline setback of the subject property shall be calculated by measuring the closest point of the primary structure to the OHWM on the adjacent property located on each side of the subject property and averaging the two (2) shoreline setbacks. The setback measurement shall exclude those features allowed to extend into the shoreline setback as identified in subsection (2)(d)(8) of this section, and decks, patios and similar features.
    - b) If a dwelling unit does not exist immediately adjacent to the subject property, then the setback of the adjacent property without a dwelling unit for the purposes of determining an average setback shall be based upon 30 percent of the average parcel depth of the adjacent property.
    - c) In instances where the shoreline setback of an adjacent dwelling unit has been reduced through a shoreline reduction authorized under KZC 83.380, the shoreline setback of the adjacent dwelling units, for the purpose of calculating a setback average, shall be based upon the required setback that existed prior to the authorized reduction.
  - 4) In those instances where there is an intervening property that is 80 feet or less in depth between the OHWM and an upland property, a shoreline setback shall be provided on the upland property based on the

average parcel depth of the upland property. The setback on the upland property shall be measured from the OHWM across the intervening property and the upland property.

c. Exceptions and Limitations in Some Zones – This section through KZC 83.250 contain specific regulations regarding what may be in or take place in the shoreline setback. Where applicable, those specific regulations supersede the provisions of this subsection.

d. Structures and Improvements – The following improvements or structures may be located in the shoreline setback, except within the Natural shoreline environment; provided, that they are constructed and maintained in a manner that meets KZC 83.360 for avoiding or at least minimizing adverse impacts to shoreline ecological functions:

1) For public pedestrian access required under KZC 83.420, walkways, benches, and similar features, as approved by the Planning Official.

2) For private pedestrian access to the shoreline, walkways within the shoreline setback are permitted, subject to the following standards:

a) The maximum width of the walkway corridor area shall be no more than 25 percent of the property's shoreline frontage, except in no case shall the corridor area required be less than 15 feet in width (see Plate 42).

b) The walkway corridor area shall be located outside of areas of higher ecological and habitat value.

c) The walkway in the corridor area shall be no more than eight (8) feet wide, and be constructed of a pervious walking surface, such as unit pavers, grid systems, pervious concrete, or, equivalent material approved by the Planning Official. The walkway may be divided into two narrower walkways within the corridor, but in no case shall the two walkways exceed 8 feet total. Walkways shall be essentially perpendicular not be parallel to the lake.

d) The walkway corridor area may contain minor improvements, such as garden sculptures, light fixtures, trellises and similar decorative structures that are associated with the walkway; provided, that these improvements comply with the dimensional limitations required for the walkway corridor area and any view corridor requirements under KZC 83.410. Light fixtures approved under this subsection shall comply with the provisions contained in KZC 83.470.

3) Those portions of a water-dependent development that require improvements adjacent to the water's edge, such as fueling stations for retail establishments providing gas sales, haul-out areas for retail establishments providing boat and motor repair and service, boat ramps for boat launches or other similar activities.

4) Public access facilities or other similar public water-enjoyment recreational uses, including swimming beaches.

5) Underground utilities accessory to a shoreline use approved by the Planning Official, provided there is no other feasible route or location.

6) Bioretention swales, rain gardens, or other similar bioretention systems that allow for filtration of water through planted grasses or other native vegetation.

7) Infiltration systems; provided, that installation occurs as far as feasible from the OHWM.

8) Bay windows, greenhouse windows, eaves, cornices, awnings, and canopies may extend up to 18 inches into the shoreline setback, subject to the following limitations:

a) Eaves on bay windows may extend an additional 18 inches beyond the bay window.



- b) Chimneys that are designed to cantilever or otherwise overhang are permitted.
  - c) The total horizontal dimension of these elements that extend into the shoreline setback, excluding eaves and cornices, shall not exceed 25 percent of the length of the facade of the structure.
- 9) Decks, patios and similar improvements may extend up to 10 feet into the shoreline setback but shall not be closer than 25 feet to the OHWM, except no closer than 15 feet to the OHWM within the Residential – L (A), (F) and (J) environments, subject to the following standards:
- a) The improvement shall be constructed of a pervious surface, such as wood with gaps between boards and a pervious surface below, unit pavers, grid systems, pervious concrete, or, alternatively, equivalent material approved by the Planning Official.
  - b) The total horizontal dimension of the improvement that extends into the shoreline setback, including private walkways permitted under Subsection 2.d.2) of this section, shall not exceed 50 percent of the length of the facade of the primary residence structure facing the lake.
  - c) The improvement shall be located on the ground floor of the building and shall not be elevated more than necessary to allow for grade transition from the structure to the deck or to follow the existing topography.
- 10) In the Urban Mixed shoreline environment, balconies at least 15 feet above finished grade may extend up to four (4) feet into the required shoreline setback, but no closer than 21 feet to the OHWM.
- 11) Outdoor seating areas for restaurants, hotels and other water enjoyment commercial uses may extend up to 10 feet into the shoreline setback, but shall be no closer than 16 feet to the OHWM, subject to the following standards:
- a) The improvement shall be constructed of a permeable surface, such as wood with gaps between boards and a pervious surface below, unit pavers, grid systems, porous concrete, or equivalent material approved by the Planning Official.
  - b) The total horizontal dimension of the improvement that extends into the shoreline setback shall not exceed 50 percent of the length of the facade of the primary structure.
  - c) The improvement shall be located on the ground floor of the building and shall not be elevated more than necessary to allow for grade transition from the structure to the seating area or to follow the existing topography.
  - d) All outdoor lighting is required to meet the lighting standards of KZC 83.470.
  - e) The seating area is required to be fenced off from the shoreline by rope stanchions, portable planters, or similar device approved by the City, with openings through the fencing for customer entry. The floor plan of the seating area shall be designed to preclude the seating area from being expanded.
  - f) The applicant is required to provide one (1) or more approved trash receptacles and one (1) or more ashtrays.
  - g) The area of the seating shall be considered new gross floor area for the purposes of determining whether vegetation is required under the provisions of KZC 83.400.
- 12) Retaining walls and similar structures that are no more than four (4) feet in height above finished grade; provided the following standards are met:
- a) The structure shall be designed so that it does not interfere with the shoreline vegetation required to be installed under the provisions of KZC 83.400;

- b) The structure is not for retaining new fill to raise the level of an existing grade, but only to retain an existing slope prior to construction and installed at the minimum height necessary;
    - c) The structure shall not be installed to provide the function of a hard shoreline stabilization measure unless approved under the provisions of KZC 83.300 and shall be located, on average, five (5) feet landward or greater of the OHWM; and
    - d) The structure shall meet the view corridor provisions of KZC 83.410.
  - 13) Public bridges and other essential public facilities that must cross the shoreline.
  - 14) Parking as authorized by the Planning Official under the provisions of KZC 83.440.
  - 15) Shoreline stabilization measures approved under the provisions of KZC 83.300.
  - 16) Fences, swimming pools, tool sheds, greenhouses, [non-permeable artificial turf](#), and other accessory structures and improvements are not permitted within the shoreline setback, except those specifically listed in subsection (2)(d) of this section.
  - 17) Motorized watercraft, float planes, RVs, trailers and similar items shall not be stored or placed in the shoreline setback.
3. Maximum Lot Coverage
- a. General
    - 1) KZC 83.180(2), Development Standards Chart, establishes the maximum lot coverage by use and shoreline environment.
    - 2) In calculating lot coverage, lands waterward of the OHWM shall not be included in the calculation.
    - 3) The area of all structures and pavement and any other impervious surface on the subject property will be calculated under either of the following, at the discretion of the applicant:
      - a) A percentage of the total lot area of the subject property; or
      - b) A percentage of the area of the subject property located within the shoreline jurisdiction.
    - 4) If the subject property contains more than one (1) use, the maximum lot coverage requirements for the predominant use will apply.
    - 5) In those instances where the OHWM moved further upland pursuant to any action required by this chapter, or in accordance with permits involving a shoreline habitat and natural systems enhancement project approved by the City, a state or federal agency, the lot area for purposes of calculating lot coverage shall be measured from the location of the OHWM that existed immediately prior to the enhancement project.
  - b. Exceptions – The exceptions contained in Chapter 115 KZC shall apply within the shoreline jurisdiction.
4. Height Regulations
- a. General
    - 1) KZC 83.180(2), Development Standards Chart, establishes the maximum allowed building height for all primary and accessory structures. In the event that the maximum allowable building height in KZC 83.180(2) is greater than the maximum allowable height in Chapters 15 through 56 KZC for those zones within the shoreline jurisdiction, the lower of the two (2) height provisions shall apply.

- 2) Maximum building height shall be measured from an average building elevation (ABE), calculated under the methods described in Chapter 115 KZC and depicted in Plates 17A and 17B. The calculation of ABE shall be based on all wall segments of the structure, whether or not the segments are located within the shoreline jurisdiction.
  - 3) In the CBD zones, maximum building height shall be measured from the midpoint of the abutting right-of-way, not including alleys.
  - 4) Pursuant to RCW 90.58.320, no permit shall be issued for any new or expanded building or structure more than 35 feet above average grade level that will obstruct the view to the lake of a substantial number of residences on or adjoining the shoreline, except where this chapter does not prohibit a height of more than 35 feet and only when overriding considerations of the public interest will be served. The applicant shall be responsible for providing sufficient information to the City to determine whether such development will obstruct the view to the lake for a substantial number of residences on or adjoining such shorelines. For the purposes of this provision, average grade level is equivalent to and shall be calculated under the method for calculating average building elevation established in Option 2 as described in Chapter 115 KZC for calculating average building elevation and depicted in Plate 17B.
- b. Exceptions – Element or feature of a structure, other than the appurtenances listed below, shall not exceed the applicable height limitation established for each use in each shoreline environment. The following appurtenances shall be located and designed so that views from adjacent properties to the lake will not be significantly blocked.
- 1) Antennas, chimneys, and similar appurtenances, but not including personal wireless service facilities that are subject to the provisions of Chapter 117 KZC.
  - 2) Rooftop appurtenances and their screens as regulated in Chapter 115 KZC.
  - 3) Decorative parapets or peaked roofs approved through design review pursuant to Chapter 142 KZC.
  - 4) Rooftop solar panels or other similar energy devices; provided, that the equipment is mounted as flush to the roof as feasible.
- c. Permitted Increases in Height – The following permitted increases in building height shall be reviewed by the City as part of the shoreline permit required for the proposed development activity.
- 1) In the Natural shoreline environment, the structure height of a detached dwelling unit may exceed the standard height limit by a maximum of five (5) feet above average building elevation if a reduction in the footprint of the building is sufficient to lessen the impact on a sensitive area and sensitive area buffer. The City shall include in the written decision any conditions and restrictions that it determines are necessary to eliminate or minimize any undesirable effects of approving the exception.
  - 2) In the Residential – M/H and Urban Conservancy shoreline environments located south of Market Street, the structure height of a commercial, recreational, institutional, utility or residential use, other than a detached dwelling unit, may be increased to 35 feet above average building elevation if:
    - a) Obstruction of views from existing development lying east of Lake Street South or Lake Washington Boulevard is minimized. The applicant shall be responsible for providing sufficient information to the City to evaluate potential impacts to views; and
    - b) The increase is offset by an enhanced view corridor beyond what is required in KZC 83.410.
  - 3) Properties in the PLA 15A zone in the UM shoreline environment that contain mixed- use development where building heights have been previously established under an approved Master Plan shall comply with the building height requirements as approved. Modifications to the approved building heights shall be considered under the standards established in the Master Plan and in consideration of the compatibility with adjacent uses and the degree to which public access, use and views are provided.

- 4) In all shoreline environments, the maximum height may be increased up to 35 feet if the City approves a Planned Unit Development under the provisions of Chapter 125 KZC.

(Ord. 4476 § 3, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.200 Residential Uses**

1. General – Residential uses shall not occur over water, including houseboats, live-aboards, or other single- or multifamily dwelling units.
2. Detached Dwelling Units in the Residential – L Shoreline Environment – Not more than one (1) dwelling unit shall be on each lot, regardless of the size of each lot, except an accessory dwelling unit.
3. Accessory Structures or Uses – Accessory uses and structures shall be located landward of the principal residence, except those permitted in the shoreline setback under KZC 83.190, unless or the structure is or supports a water-dependent use, such as a pier or dock or boat canopies. This provision does not apply if an improved public right-of-way or vehicular access easement separates the principal residence from the lake.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.210 Commercial Uses**

1. Float Plane Landing and Mooring Facilities
  - a. Use of piers or docks for commercial float plane service shall be allowed only in public or private marinas and shall be subject to a conditional use permit.
  - b. Any shoreline conditional use permit for float plane use shall specify:
    - 1) Taxiing patterns to be used by float planes that will minimize noise impacts on area residents and wildlife and minimize interference with navigation and moorage;
    - 2) Float plane facilities and services shall conform to all applicable City codes and Federal Aviation Administration standards and requirements for fuel, oil spills, safety and firefighting equipment, noise, and pedestrian and swimming area separation; and
    - 3) Hours of operation may be limited to minimize impacts on nearby residents.
2. Retail Establishment Providing New or Used Boat Sales or Rental – Outdoor boat parking and storage areas must be buffered as required for a parking area under the provisions of KZC 83.440.
3. Retail Establishment Providing Gas and Oil Sale for Boats -Including mobile fueling businesses.
  - a. The location and design of fueling facilities must meet applicable state and federal regulations.
  - b. Storage of petroleum products shall not be located over water.
  - c. Storage tanks shall be located underground and shall comply with state and federal standards for underground storage tanks.
  - d. Fueling stations shall be located and designed to allow for ease of containment and spill cleanup.
  - e. New fueling facilities shall incorporate the use of automatic shutoffs on fuel lines and at hose nozzles to reduce fuel loss.
  - f. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum products shall be provided.
  - g. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.

4. Retail Establishment Providing Boat and Motor Repair and Service
  - a. Storage of parts shall be conducted entirely within an enclosed structure.
  - b. If hull scraping, boat painting, or boat cleaning services are provided, boats shall be removed from the water and debris shall be captured and disposed in a proper manner.
  - c. Repair and service activities shall be conducted on dry land and either totally within a building or totally sight screened from adjoining property and the right-of-way.
  - d. All dry land motor testing shall be conducted within a building.
  - e. An appropriate storage, transfer, containment, and disposal facility for liquid material, such as oil, harmful solvents, antifreeze, and paints shall be provided and maintained.
  - f. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.
5. Restaurant or Tavern
  - a. The building design must be oriented for the view to the waterfront.
  - b. Drive-in or drive-through facilities are prohibited.

(Ord. 4251 § 3, 2010)

#### **83.220 Recreational Uses**

1. Motorized Boats – See Chapter 14.24 KMC, Operation of Watercraft, for prohibition of use within restricted shoreline areas and established speed limits.
2. Floats/Swim Platforms – Only public floats/swim platforms are permitted.
3. Marina, Piers, Moorage Buoy or Pilings, Boat Facility and Boat Canopies – See standards contained in KZC 83.270 through 83.290.
4. Tour Boat Facility – Tour boat facilities shall be designed to meet the following standards:
  - a. Size – The City will determine the maximum capacity of the tour boat facility based on the following factors:
    - 1) The suitability of the environmental conditions, such as, but not limited to, a consideration of the following conditions: the presence of submerged aquatic vegetation, proximity to shoreline associated wetlands, critical nesting and spawning areas, water depth, water circulation, sediment inputs and accumulation, and wave action.
    - 2) The ability of the land landward of the ordinary high waterline to accommodate the necessary support facilities.
  - b. Moorage structures supporting a tour boat facility shall comply with the moorage structure location standards and design standards for marinas in KZC 83.290.
  - c. The City will make the determination if any parking and/or a passenger loading area will be required.
  - d. Associated buildings and structures, other than moorage structure for the tour boat facility, shall not be permitted over water.
  - e. Tour boat facilities shall comply with applicable state and/or federal laws, including but not limited to those for registration, licensing of crew and safety regulations.

- f. Tour boat facilities operated accessory to public parks shall comply with the standards in Chapter 14.36 KMC.
- g. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.

5. Public Access Pier, Dock or Boardwalk

- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing and constructing the use.
- b. No accessory uses, buildings, or activities are permitted as part of this use.
- c. See KZC 83.370 for federal and state approvals prior to submittal of a building permit for this use.
- d. Must provide at least one (1) covered and secured waste receptacle upland of the OHWM.
- e. All utility and service lines located waterward of the OHWM must be below the pier deck. All utility and service lines located upland of the OHWM shall be underground, where feasible.
- f. Piers or docks shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
- g. Structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four (4) inches high and visible from the lake.
- h. Public access structures shall not be within 10 feet of a side property line, except that setbacks between moorage structures and the side property lines that intersect the OHWM may be decreased for overwater public use facilities that connect with waterfront public access on adjacent property.
- i. Public access structures shall be separated from the outlet of a stream, including piped streams, by the maximum extent feasible, while meeting other required setback standards established under this section.
- j. Pier structures shall comply with the moorage structure design standards for marinas in KZC 83.290, except primary walkways and floats shall be no wider than eight (8) feet.

6. Boat Launch (for Nonmotorized Boats)

- a. Location Standards – Boat launches for nonmotorized boats shall be sited so that they do not significantly damage fish and wildlife habitats and shall not occur in areas with native emergent vegetation. Removal of native upland vegetation shall be minimized to the greatest extent feasible.
- b. Size – The applicant shall demonstrate that the proposed size of the boat launch is the minimum necessary to safely launch the intended craft.
- c. Design Standards – Boat launches for nonmotorized boats shall be constructed of gravel or other similar natural material.

7. Boat Launch (for Motorized Boats)

- a. Location Standards
  - 1) Boat launches shall not be approved in cases when it can be reasonably foreseen that the development or use would require maintenance dredging during the life of the development or use.
  - 2) Boat launches shall be designed and located according to the following criteria:
    - a) Separated from existing designated swimming areas by a minimum of 25 feet.
    - b) Meet KZC 83.360 for avoiding impacts to fish and wildlife habitats.

- c) Located only at sites with suitable transportation access. The applicant must demonstrate that the streets serving the boat launch can safely handle traffic generated by such a facility.
    - d) Not be located within 25 feet of a moorage structure not on the subject property; or within 50 feet of the outlet of a stream, including piped streams.
  - b. Size – The applicant shall demonstrate that the proposed length of the ramp is the minimum necessary to safely launch the intended craft. In no case shall the ramp extend beyond the point where the water depth is six (6) feet below the OHWM, unless the City determines that a greater depth is needed for a public boat launch facility.
  - c. Design Standards
    - 1) Preferred ramp designs, in order of priority, are:
      - a) Open grid designs with minimum coverage of lake substrate.
      - b) Seasonal ramps that can be removed and stored upland.
      - c) Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in shoreline profile.
    - 2) The design shall comply with all regulations as stipulated by state and federal agencies, affected tribes, or other agencies with jurisdiction.
  - d. Boat launches shall provide trailer spaces, at least 10 feet by 40 feet, commensurate with projected demand.
- 8. Public Park – Recreation facilities that support non-water-related, high-intensity activities, such as basketball and tennis courts, baseball and soccer fields and skate parks, shall be located outside of shorelines jurisdiction to the extent feasible.
- 9. Public Access Facility
  - a. Fragile and unique shoreline areas with valuable ecological functions, such as wetlands and wildlife habitats, shall be used only for nonintensive recreation activities, such as trails, viewpoints, interpretative signage and similar passive and low-impact facilities.
  - b. Physical public access shall be located, designed and constructed to meet KZC 83.360 for net loss of shoreline ecological functions.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.230 Transportation Facilities**

- 1. General
  - a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
  - b. Transportation facilities shall utilize existing transportation corridors whenever feasible; provided, that facility additions and modifications that will not adversely impact shoreline resources and otherwise be consistent with this chapter are allowed. If expansion of the existing corridor will result in significant adverse impacts, then a less disruptive alternative shall be utilized.
  - c. When permitted within shoreline areas, transportation facilities must be placed and designed to minimize negative aesthetic impacts upon shoreline areas and to avoid and minimize impacts to existing land uses, public shoreline views, public access, and the natural environment.



- d. Transportation and utility facilities shall be required to make joint use of rights-of-way, and to consolidate crossings of water bodies to minimize adverse impacts to the shoreline.
- e. Transportation facilities located in shoreline areas must be designed and maintained to prevent erosion and to permit the natural movement of surface water.

2. Construction and Maintenance

- a. All debris and other waste materials from roadway construction and maintenance shall be disposed of in such a way as to prevent their entry into any water body.
- b. All shoreline areas disturbed by facility construction and maintenance shall be replanted and stabilized with approved riparian vegetation by seeding, mulching, or other effective means immediately upon completion of the construction or maintenance activity. The vegetation shall be maintained until established.
- c. Clearing of vegetation within transportation corridors shall be the minimum necessary for infrastructure maintenance and public safety. The City shall give preference to mechanical means rather than the use of herbicides for roadside brush control on city roads in shorelines jurisdiction.
- d. Construction of facilities that cross streams to allow passage of fish inhabiting the stream or that may inhabit the stream in the future are allowed.
- e. Construction of facilities within the 100-year floodplain to allow for water pass-through is allowed.

3. Passenger-Only Ferry Terminal

- a. See KZC 83.360 for minimizing impacts when locating, designing, constructing and operating the use.
- b. Associated buildings and structures, other than the moorage structure for the ferry terminal, shall not be permitted over water.
- c. Equipment storage shall be conducted entirely within an enclosed structure.
- d. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.
- e. The City will make the determination if any parking and/or a passenger loading area will be required.

4. Water Taxi

- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
- b. Equipment storage shall be conducted entirely within an enclosed structure.
- c. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.

5. Arterials, Collectors, and Neighborhood Access Streets and Bridges

- a. New street and bridge construction in shorelines jurisdiction shall be minimized and allowed only when related to and necessary for the support of permitted shoreline activities.
- b. Streets other than those providing access to approved shoreline uses shall be located away from the shoreline, except when no reasonable alternate location exists.
- c. Any street expansion affecting streams and waterways shall be designed to allow fish passage and minimize impact to habitat.

- d. Drainage and surface runoff from streets and street construction or maintenance areas shall be controlled so that pollutants will not be carried into water bodies.
- e. Streets within shorelines jurisdiction shall be designed with the minimum pavement area feasible.
- f. Streets shall be designed to provide frequent safe crossings for pedestrians and bicycles seeking access to public portions of the shoreline.
- g. Low impact development techniques shall be used where feasible for roadway or pathway and related drainage system construction.
- h. Street alignments shall be designed to fit the topography so that alterations to the natural site conditions will be minimized.
- i. New and expanded streets or bridges shall be designed to include pedestrian amenities, such as benches or viewing area and public sign systems, if an area is available for the improvement(s) and if there is a view or public access to the water from the area.
- j. Vegetation and street trees shall be selected and located so that they do not impair public views of the lake from public rights-of-way to the maximum extent feasible.
- k. Shoreline street ends may be used for public access or recreational purposes.
- l. Shoreline street ends shall not be vacated, except in compliance with RCW 35.79.035 or its successor, as well as KMC 19.16.090.

(Ord. 4251 § 3, 2010)

### 83.240 Utilities

#### 1. General

- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
- b. Whenever feasible, utility facilities shall be located outside the shoreline jurisdiction. Whenever these facilities must be placed in a shoreline area, the location shall be chosen so as not to adversely impact shoreline ecological functions or obstruct scenic views.
- c. Geothermal heat pumps are not permitted waterward of the OHWM.
- d.e. Utilities shall be located in existing rights-of-way and utility corridors wherever feasible.
- e.d. New utilities shall not be located waterward of the OHWM or in the Natural shoreline environment, unless it is demonstrated that no feasible alternative exists.
- f.e. Utility lines, pipes, conduits, cables, meters, vaults, and similar infrastructure and appurtenances shall be placed underground consistent with the standards of the serving utility to the maximum extent feasible.
- g.f. Proposals for new utilities or new utility corridors in the shoreline jurisdiction must fully substantiate the infeasibility of existing routes or alternative locations outside of the shoreline jurisdiction.
- h.g. Utilities that are accessory and incidental to a shoreline use shall be reviewed under the provisions of the use to which they are accessory.
- i.h. Utilities shall provide screening of facilities from the lake and adjacent properties in a manner that is compatible with the surrounding environment. The City will determine the type of screening on a case-by-case basis.

1. Utility development shall, through coordination with local government agencies, provide for compatible, multiple uses of sites and rights-of-way. Such uses include shoreline access points, trail systems and other forms of recreation and transportation, providing such uses will not unduly interfere with utility operations, or endanger public health and safety.

2. Construction and Maintenance

a. All shoreline areas disturbed by utility construction and maintenance shall be replanted and stabilized with approved vegetation by seeding, mulching, or other effective means immediately upon completion of the construction or maintenance activity. Such vegetation shall be maintained until established.

b. Clearing of vegetation within utility corridors shall be the minimum necessary for installation, infrastructure maintenance and public safety.

c. Construction of pipelines placed under aquatic areas shall be placed in a sleeve in order to avoid the need for excavation in the event of a failure in the future.

d. Construction located near wetlands and streams shall use native soil plugs, collars or other techniques to prevent potential dewatering impacts.

e. See KZC 83.480 for conducting maintenance activities that minimize impacts.

3. Utility Production and Processing Facilities – Utility production and processing facilities not dependent on a shoreline location shall be located outside of the shoreline jurisdiction, unless it is demonstrated that no feasible alternative location exists.

4. Utility Transmission Facilities

a. Transmission facilities shall be located outside shorelines jurisdiction where feasible, and when necessarily located within shoreline areas, shall assure no net loss of shoreline ecological functions.

b. Pipelines transporting hazardous substances or other substances harmful to aquatic life or water quality are prohibited, unless it is demonstrated that no feasible alternative exists.

c. Sanitary sewers shall be separated from storm sewers.

5. Personal Wireless Service Facilities – Personal wireless service facilities shall use concealment strategies to minimize the appearance of antennas and other equipment from the lake and public pedestrian walkways or public use areas.

(Ord. 4251 § 3, 2010)

**83.250 Land Division**

1. New lots created through land division in shorelines jurisdiction shall only be permitted when the following standards are met:

a. The lots created will not require structural flood hazard reduction measures, such as dikes, levees, or stream channel realignment, during the life of the development or use.

b. The lots created will not require hard structural shoreline stabilization measures in order for reasonable development to occur, as documented in a geotechnical analysis of the site and shoreline characteristics.

c. The lots created will not result in an increased nonconforming shoreline setback.

c. In the Natural and Urban Conservancy shoreline environments, the lots created shall contain buildable land area located outside of the shoreland area.

2. Land division, except those for lot line adjustment and lot consolidation purposes, shall provide public access as required in KZC 83.420, unless otherwise excepted or modified under the provisions of KZC 83.420.
3. Land divisions shall establish a prohibition on new private piers and docks on the face of the plat. An area for joint use moorage may be approved if it meets all requirements for shared moorage in KZC 83.270.
4. The required view corridor and public access shall be established prior to recording of the land division consistent with KZC 83.410 and 83.420 and shall be depicted on the face of the recorded document.

(Ord. 4251 § 3, 2010)

### Shoreline Modification Regulations

#### 83.260 General

1. See KZC 83.360 for no net loss standard and mitigation sequencing for Conditional Use Permits or Variances, or where specific regulations and mitigation measures for a proposed use or activity are not provided in this chapter such as marinas and multifamily piers.
2. See KZC 83.370 for federal and state approval required prior to submittal of a building permit.
3. See KZC 83.430 for in-water construction.
4. Structures must be designed to preclude moorage in locations that would have insufficient water depth to avoid boats resting on the substrate at any time of year.

(Ord. 4251 § 3, 2010)

#### 83.270 Piers, Docks, Moorage Buoys and Piles, Boat Lifts and Boat Canopies Serving a Detached Dwelling Unit Use (Single-Family)

##### 1. General

- a. Piers, docks, moorage buoys and piles, boat lifts and canopies may only be developed and used accessory to existing dwelling units on waterfront lots or upland lots with waterfront access rights. Use of these structures is limited to the residents and guests of the waterfront lots to which the moorage is accessory and upland lots with legal lake access. Moorage space shall not be leased, rented, or sold unless otherwise approved as a marina under the provisions of KZC 83.290.
- b. Only one (1) pier or dock may be located on a subject property.
- c. In the following circumstances, a joint use pier shall be required:
  - 1) On lots subdivided to create one (1) or more additional lots with waterfront access rights.
  - 2) New residential development of two (2) or more dwelling units with waterfront access rights.
- d. Piers, docks, boat lifts and moorage piles shall be designed and located to meet KZC 83.360 for no net loss standard and mitigation sequencing.
- e. For proposed extension of structures waterward of the inner harbor line, see KZC 83.370.

##### 2. Setbacks

- a. All piers, docks, boat lifts and moorage piles for detached dwelling unit use shall comply with the following location standards:

New Pier, Dock, Boat Lift and Moorage Pile for Detached Dwelling Unit (Single-Family)	Minimum Setback Standards
Side property lines	5 ft. for moorage pile; otherwise 10 ft.
Another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required side property line setback	25 ft., except that this standard shall not apply to moorage piles
Outlet of a stream regulated under KZC 83.510, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
Public park	25 ft., except that this standard shall not apply within the Urban Mixed shoreline environment

b. Joint-use structures may abut property lines provided the property owners sharing the moorage facility have mutually agreed to the structure location. To ensure that a pier or dock is shared, each property owner must sign a statement in a form acceptable to the City Attorney, stating that the pier or dock is used by the other property. The applicant must file this statement with the King County Recorder's Office to run with the properties.

### 3. General Standards

a. Proposed piers and docks that do not comply with the dimensional standards contained in this section or cannot be permitted through the Administrative Approval for Alternative Design process in this section may only be approved if they obtain a shoreline variance under the provisions of Chapter 141 KZC.

b. All piers and docks and other developments regulated by this section shall be constructed and maintained in a safe and sound condition. Abandoned or unsafe structures shall be removed or repaired promptly by the owner.

c. Boats may not be temporarily or permanently moored within 30 feet of the OHWM.

ed. Each pier shall contain a pier ladder for access into the lake.

f.e. -Temporary moorages shall be permitted for vessels used in the construction of shoreline facilities. The design and construction of temporary moorages shall be such that upon termination of the project, the aquatic habitat in the affected area can be returned to its original (pre-construction) condition.

f.d. The following structures and improvements are not permitted:

1) Covered moorage, boathouses, or other walled covered moorage, except boat canopies that comply with the standards in this subsection.

2) Skirting on any structure.

3) Aircraft moorage.

4) Residential boat launches and boat rails.

hg.e. See KZC 83.470 concerning lighting standards for required lighting.

h.f. Piers and docks must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four (4) inches high.

-i.- Piers and docks shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night. Exterior finish of all structures shall be generally nonreflective.

j. Must provide at least one (1) covered and secured waste receptacle located upland of the OHWM.

k. All utility and service lines located waterward of the OHWM must be affixed below the pier or dock deck and above the high-water-line.

l. All utility and service lines located upland of the OHWM shall be underground, where feasible. ~~A mooring buoy may be used to provide moorage space in lieu of a pier or dock.~~

m. A mooring buoy may be used to provide moorage space in lieu of a pier or dock. A moorage buoy is not permitted if the subject property contains a pier or a dock. No more than one (1) mooring buoy is permitted per detached dwelling unit. Water craft moored to a moorage buoy may be no closer than 30 feet from the OHWM and must have adequate water depth to prevent a moored boat from resting on the lakebed.

~~l. Moorage buoys shall be in water depths of nine (9) feet or greater based on ordinary high water, unless the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved an alternate proposal.~~

n. Pier bumpers are permitted if they meet the following standards:

Maximum pier bumper width allowed is 10 inches. Spacing between bumpers must be at least four feet on center, preferably lined up with the piles. Bumpers may not extend into the water more than 1.5 feet below the OHWM elevation. The number of bumpers allowed is the minimum necessary to prevent a boat from going under a pier along the mooring tie up area. Bumpers may only be located where a boat is permanently moored. A limited number of bumpers may also be permitted in a designated tie-up area for guest moorage.

#### 4. New Pier or Dock Dimensional Standards

a. New piers or docks may be permitted, subject to the following regulations:

New Pier, Dock or Moorage Piles for Detached Dwelling Unit (Single-Family)	Dimensional and Design Standards
<p><del>Maximum Area:</del> surface coverage including all attached float decking, ramps, ells and fingers</p>	<p>480 square feet for single property owner</p> <p>700 square feet for joint use facility used by two (2) residential property owners</p> <p>1,000 square feet for joint use facility used by three (3) or more residential property owners</p> <p>These area limitations shall include platform lifts</p> <p>Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of 10 feet measured below ordinary high water, an additional four (4) square feet of area may be added for each additional foot of pier or dock length needed to reach 10 feet of water depth at the landward end of the pier or dock; provided, that all other area dimensions, such as maximum width and length, have been minimized.</p>
<p><b>Maximum Length</b> for piers, docks, ells, fingers and attached floats (See Plates 47 and 48A/B)</p>	<p><u>A pier or dock shall not project into the lake further than a line established by the lakeward extent of adjacent neighboring piers, or 150 feet in overall length of the proposed pier or dock, whichever is less (see Plate 47). Pier or dock length may be increased beyond the lakeward extent of adjacent neighboring piers or docks, but not more than 150 feet in overall length under any of the following circumstances:</u></p> <ol style="list-style-type: none"> <li><u>1. An applicant is entitled to increase the overall length of the proposed pier or dock by 10% to extend beyond the lakeward extent of neighboring piers or docks (see Plates 48A/B).</u></li> <li><u>2. An applicant may propose to further increase the overall length of the proposed pier or dock to a length that achieves the average water depth at either the lakeward extent or primary moorage area, whichever is less, of the two piers on either side of the proposed pier or dock. The applicant must demonstrate the proposed additional length will not have an adverse impact on navigation.</u></li> <li><u>3. An applicant is entitled to further increase the overall length of the proposed pier or dock when subsections 1 and 2 still do not result in a water depth adequate to prevent boats from sitting on the lakebed. The applicant must demonstrate the proposed additional length will not have an adverse impact on navigation.</u></li> </ol>

New Pier, Dock or Moorage Piles for Detached Dwelling Unit (Single-Family)	Dimensional and Design Standards
	<p><u>The overall length of a pier or dock shall be measured from the furthest landward point of the OHWM.</u></p> <p><u>A shoreline variance shall be required for any pier or dock that exceeds 150 feet in length.</u></p> <p><del>No longer than the average lakeward extent of the adjacent neighboring piers, or 150 feet, but piers whichever is less, except when a water depth adequate to prevent boats from sitting on the lakebed cannot be achieved within the average lakeward extent of adjacent neighboring piers, it may extend up to a maximum of 150'. The average water depth at the lakeward extent of the two (2) immediately adjacent neighboring piers may be used to establish an allowable water depth. If a length exceeding 150 feet is required to meet adequate depth a shoreline variance shall be required. Piers or docks may extend up to a maximum of 10% of the average of the nearby piers (see Plates 47 and 48A/B) but shall not exceed 150 feet. Piers or docks extending farther waterward than adjacent piers or docks up to 10% more than nearby adjacent piers or docks must demonstrate that they will not have an adverse impact on navigation.</del></p> <p><u>The length of a pier or dock shall be measured from the furthest landward point of the OHWM.</u></p> <p>26 feet for ells</p> <p>20 feet for fingers and float decking attached to a pier</p>
<p><u>Maximum Area:</u> surface coverage of a pier or docks, including all attached float decking, ramps, ells and fingers</p>	<p>480 square feet for single property owner</p> <p>700 square feet for joint-use facility used by two (2) residential property owners</p> <p>1,000 square feet for joint-use facility used by three (3) or more residential property owners</p> <p><u>These area limitations shall include platform lifts, but not boatlifts</u></p> <p><u>Where a pier or dock cannot reasonably be constructed under the area limitation above to obtain a moorage depth of 10 feet measured below ordinary high water adequate to prevent a boat from sitting on the lakebed, an additional four (4) square feet of area may be added for each additional foot of pier or dock length needed to reach 10 feet of water depth at the landward end of the pier or dock adequate depth; provided, that all other area dimensions, such as maximum width and length, have been minimized.</u></p>
<p><b>Maximum Width</b></p>	<p>Four (4) feet for pier or dock walkway or ramp</p> <p>Six (6) feet for ells</p> <p>Two (2) feet for fingers</p> <p>Six (6) feet for float decking attached to a pier</p> <p>For piers or docks with no ells or fingers perpendicular to the pier or dock, the most waterward 26-foot section of the walkway may be six (6) feet wide, <u>but within 30 feet from the OHWM no wider than four (4) feet.</u></p>
<p><b>Height</b> of piers and diving boards</p>	<p>Minimum of 1.5 feet above ordinary high water to bottom of pier stringers, except the floating section of a dock and float decking attached to a pier</p> <p>Maximum of three (3) feet above deck surface for diving boards or similar features</p> <p>Maximum of three (3) feet above deck for safety railing and gates, which shall be an open framework</p>
<p><del>Minimum Water Depth</del> for ells and float decking attached to a pier</p>	<p><del>Must be in water with depths of nine (9) feet or greater at the landward end of the ell or finger</del></p> <p><del>Must be in water with depths of 10 feet or greater at the landward end of the float</del></p>
<p><b>Decking</b> for piers, docks, walkways, platform lifts, ells and fingers</p>	<p>Piers, docks, and platform lifts must be fully grated or contain other materials that allow a minimum of 40 percent light transmittance through the material</p> <p>If float tubs for docks preclude use of fully grated decking material, then a minimum of two (2) feet in width of grating down the center of the entire float shall be provided</p>



New Pier, Dock or Moorage Piles for Detached Dwelling Unit (Single-Family)	Dimensional and Design Standards
<b>Location</b> of ells, fingers and deck platforms	No closer than 30 feet waterward of the OHWM, measured perpendicular to the OHWM, <u>and located near the terminal (waterward) end of the pier</u> Within 30 feet of the OHWM, only the pier walkway or ramp is allowed
<b>Pier Pilings and Moorage Piles</b>	<del>Pier</del> Pilings <del>and</del> moorage piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds First set of <del>pier</del> pilings for a pier or dock shall be located no closer than 18 feet from OHWM Moorage piles shall be located no closer than 30 feet from the OHWM or any farther waterward than the end of the pier or dock <del>Moorage buoys are not permitted when a pier or dock is located on a subject property</del> Maximum two (2) moorage piles per detached dwelling unit, including existing piles Maximum four (4) moorage piles for joint use piers or docks, including existing piles
<b>Mitigation</b>	Plantings or other mitigation as described in subsection <del>(5)</del> of this section

b. The City shall approve the following modifications to a new pier proposal that deviates from the dimensional standards of subsection (4) of this section, subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. In addition, the following requirements and all other applicable provisions in this chapter shall be met.

Administrative Approval for Alternative Design of New Pier or Dock for Detached Dwelling Unit (Single-Family)	Requirements
<b>State and Federal Agency Approval</b>	U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved proposal
<b>Maximum Area</b>	No larger than authorized through state and federal approval
<b>Maximum Width</b>	Four (4) feet for portion of pier or dock located within 30 feet of the OHWM; otherwise, six (6) feet for walkways Otherwise, the pier and all components shall meet the standards noted in subsection (4)(a) of this section
<b>Minimum Water Depth</b>	No shallower than authorized through state and federal approval

With submittal of a building permit, the applicant shall provide documentation that the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved the alternative proposal design.

5. Mitigation – All proposals involving new piers or docks are subject to the following mitigation requirements:

a. Any existing in-water and overwater structures shall be removed ~~if they are associated with either a moorage structure or other recreational use that is located within 30 feet waterward of the OHWM~~, unless such structures are incorporated into the new pier or dock proposal and conform to the regulations in KZC 83.270. Any incorporated existing structure shall be considered part of the new structure for purposes of calculating allowed area.

b. Emergent vegetation shall be planted waterward of the OHWM along 75 percent of the shoreline frontage, unless the City determines that it is not appropriate or feasible.

c. Native riparian vegetation shall be planted in at least 75 percent of the nearshore riparian area located along the water's edge. The vegetated portion of the nearshore riparian area shall average 10 feet in depth landward from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 10-foot-wide area.

d. Joint-use piers or docks required under the provisions of this chapter, such as part of a shoreline subdivision, shall require a vegetative riparian zone along all properties sharing the pier or dock. ~~Other~~ Joint-use piers not required by this chapter shall be required to provide the same mitigation as required for one (1) property, which can be split evenly between the subject properties.

e. ~~d.~~ Mitigation plantings shall be subject to the following requirements:

- 1) Mitigation plantings shall be native vegetation and shall consist of a mixture of trees, shrubs and groundcover designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline and shrubs planted to attain coverage of at least 60 percent of area in two (2) years must be included in the plan. Plant materials must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester. Plant density and spacing shall be appropriate for the site and commensurate with spacing recommended for each individual species proposed. ~~An alternative planting plan or mitigation measure in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.~~

In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. Existing non-native plants may remain but shall not be counted towards meeting the vegetation requirement.

- 2) Vegetation Placement – See the provisions contained in KZC 83.400, including the vegetation placement and alternative compliance provisions.

f. ~~For properties containing bulkheads, native trees, shrubs and groundcover~~ plantings shall include species which promote growth overhanging the water.

g. ~~e.~~ In addition to a native planting plan, a 5-year vegetation maintenance and monitoring plan shall be prepared by a qualified professional approved by the Planning Official and submitted to the City for approval. The monitoring plan shall include the following elements:

- 1) Preparation of as-built drawings after installation of the mitigation plantings;
- 2) Annual monitoring reports for five (5) years that include written and photographic documentation of tree and shrub mortality, subject to the following success criteria:
  - a) One hundred (100) percent survival of all planted native trees, shrubs and ground cover during the first two (2) years after planting; and
  - b) One hundred (100) percent survival of trees and 80 percent survival of remaining native plants in years three (3) through five (5).

~~Copies of reports that are submitted to state or federal agencies in compliance with permit approvals may be submitted in lieu of a separate report to the City, provided that the reports address a 5-year maintenance and monitoring plan.~~

h. ~~f.~~ Woody debris existing on-site or contributed to the site as part of the mitigation efforts shall not be removed.

## 6. Replacement of Existing Pier or Dock

- a. A replacement of an existing pier or dock that is no larger than the existing structure shall meet the following requirements:

<b>Replacement of Existing Pier or Dock for Detached Dwelling Unit (Single-Family)</b>	<b>Requirements</b>
Replacement of entire existing pier or dock, including piles OR more than 50 percent of the pier-support piles and more than 50 percent of the decking or decking substructure (e.g., stringers)	Must meet the dimensional decking and design standards for new piers or dock as described in subsection (4)(a) of this section, except the City may administratively approve an alternative design described in subsection (6)(b) of this section.
Mitigation	<p>The following improvements shall be removed:</p> <ol style="list-style-type: none"> <li>1. Existing skirting shall be removed and may not be replaced.</li> <li>2. Existing in-water and overwater structures located within 30 feet of the OHWM, other than the subject replacement pier. Existing in-water structures, such as boat lifts, may be shifted farther waterward to comply with this requirement. Existing or authorized shoreline stabilization measures may be retained.</li> </ol>

b. **Alternative Design** – The City shall approve the following modifications to a pier replacement proposal that deviates from the dimensional standards of subsection (4)(a) of this section, subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. In addition, the following requirements and all other applicable provisions in this chapter shall be met.

<b>Administrative Approval for Alternative Design of Replacement Pier or Dock for Detached Dwelling Unit (Single-Family)</b>	<b>Requirements</b>
<b>State and Federal Agency Approval</b>	U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved proposal
<b>Maximum Area</b>	No larger than existing pier or that allowed under subsection (4)(a) of this section, whichever is greater
<b>Maximum Length</b>	<p>26 feet for fingers and float decking attached to a pier</p> <p>Otherwise, the pier and all components shall meet the standards noted in subsection (4)(a) of this section</p>
<b>Maximum Width</b>	<p>Four (4) feet for walkway or ramp located within 30 feet of the OHWM; otherwise, six (6) feet for walkways</p> <p>Eight (8) feet for ells and float decking attached to a pier</p> <p>For piers with no ells or fingers perpendicular to the pier, the most waterward 26-foot section of the walkway may be eight (8) feet wide</p> <p>Otherwise, the pier and all components shall meet the standards noted in subsection (4)(a) of this section</p>
<b>Minimum Water Depth</b>	No shallower than authorized through state and federal approval

With submittal of a building permit, the applicant shall provide documentation that the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved the alternative proposal design.

7. Additions to Pier or Dock – Proposals involving the addition to or enlargement of existing piers or docks, including replacement piers or docks that are larger than the existing structure, must comply with the requirements below. These provisions shall not be used in combination with the provisions for new or replacement piers contained in subsections (4) and (6) of this section.

Addition to Existing Pier or Dock for Detached Dwelling Unit (Single-Family)	Requirements
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the enlargement of an existing pier or dock  Examples of need include, but are not limited to, safety concerns or inadequate depth of water
<b>Dimensional and other standards</b>	Enlarged portions must comply with the new pier or dock standards for length and width, height, <del>water depth</del> , location, decking and pilings and for materials as described in subsection (4)(a) of this section
<b>Decking</b> for piers, docks, walkways, ells and fingers	Must convert an area of decking within 30 feet of the OHWM to grated decking equivalent in size to the additional surface coverage. Grated or other materials must allow a minimum of 40 percent light transmittance through the material
<b>Mitigation</b>	Planting and other mitigation as described in subsection (5) of this section  The following improvements shall be removed:  1. Existing skirting shall be removed and may not be replaced.  2. Existing in-water and overwater structures located within 30 feet of the OHWM shall be removed at a 1:1 ratio to the area of the addition, except for existing or authorized shoreline stabilization measures and ramp or walkway of the pier or dock being enlarged.  3. For the RSA zone, <del>if two piers or docks or any other piers or docks, and</del> covered boat moorage structures <del>are</del> located on the subject property, except for boat canopies that comply with this section, <del>they</del> must be removed. <del>The more non-conforming pier or dock must be removed</del>

8. Repair of Existing Pier or Dock

a. Repair proposals that replace only decking or decking substructure and less than 50 percent of the existing pier-support piles, and for which it has been at least five years since a repair proposal for the same pier or dock, must comply with the following regulations. Proposals where additional repairs are sought within five years of a previous proposal that cumulatively exceed these thresholds shall be regulated under the provisions for replacement of piers or docks in subsection (6) of this section:

Minor Repair of Existing Pier or Dock for Detached Dwelling Unit (Single-family)	Requirements
Replacement pilings or moorage piles	Must use materials as described under subsection (4) of this section  Must minimize the size of pilings or moorage piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design considerations
Replacement of 50 percent or more of the decking OR 50 percent or more of decking substructure	Must replace any solid decking surface of the pier or dock located within 30 feet of the OHWM with a grated surface material that allows a minimum of 40 percent light transmittance through the material. <u>New decking shall comply with the pier dimensional standards of 83.270.4 to the maximum extent feasible.</u>
<u>Cross bar anchors</u>	<u>May be used to stabilize a pier, provided that the anchors are located at the deepest end of the pier</u>

b. Other repairs to existing legally established moorage facilities where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing pier or dock would make a proposed repair exceed the threshold for a replacement pier established in subsection (5) of this section, the repair proposal shall be reviewed under subsection (4) of this section for a new pier or dock, ~~except as described in subsection (5)(b) of this section for administrative approval of alternative design.~~

9. Boat Lifts and Boat Lift Canopies – Boat lifts and boat lift canopies may be permitted as an accessory to piers and docks, subject to the following regulations:

Boat Lift and Boat Canopy for Detached Dwelling Unit (Single-Family)	Requirements
<b>Location</b>	Boat lifts shall be placed as far waterward of the OHWM as feasible and safe, within the limits of the dimensional standards for piers or docks established in subsection (4) of this section  Bottom of a boat lift canopy shall be elevated above the boat lift to the maximum extent feasible, the lowest edge of the canopy must be at least four (4) feet above the ordinary high water mark, and the top of the canopy must not extend more than <del>12</del> <sup>seven (7)</sup> feet above an associated pier
<b>Maximum Number</b>	<del>One</del> <sup>Two (2)</sup> freestanding or deck-mounted boat lifts per detached dwelling unit  Two (2) jet ski lifts or one (1) fully grated platform lift per detached dwelling unit  One (1) boat lift canopy per detached dwelling unit
<b>Canopy Materials</b>	Must be made of translucent <del>fabrie</del> materials
<b>Fill for Boat Lift</b>	Maximum of two (2) cubic yards of fill are permitted to anchor a boat lift, subject to the following requirements: <ul style="list-style-type: none"> <li>• May only be used if the substrate prevents the use of anchoring devices that can be embedded into the substrate</li> <li>• Must be clean</li> <li>• Must consist of rock or pre-cast concrete blocks</li> <li>• Must only be used to anchor the boat lift</li> <li>• Minimum amount of fill is utilized to anchor the boat lift</li> </ul>

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### 83.280 Piers, Docks, Moorage Buoys, Boat Lifts and Canopies Serving Detached, Attached or Stacked Dwelling Units (Multifamily)

#### 1. General

a. Piers, docks, moorage buoy and pier piles, boat lifts and canopies may only be developed and used accessory to existing dwelling units on waterfront lots or upland lots with waterfront access rights.

b. Use of these structures is limited to the residents and guests of the waterfront lots or upland lots with legal lake access rights to which the moorage is accessory. Moorage space shall not be leased, rented, or sold unless otherwise approved as a marina under the provisions of KZC 83.290.

cb. Only one (1) pier or dock may be located on a subject property.

- ~~d.e.~~ See KZC 83.360 for no net loss standard and mitigation sequencing.
- e. Boats may not be temporarily or permanently moored within 30 feet of the OHWM.
- f. Each pier or dock shall contain a pier ladder for access into the lake.
- g. See KZC 83.370 for structures to be extended waterward of the inner harbor line.

2. Setbacks – All piers, docks, boat lifts and moorage piles serving detached, attached or stacked dwelling units shall comply with the following setback standards:

New Pier, Dock, Boat Lift and Moorage Pile for Detached, Attached or Stacked Dwelling Units (Multifamily)	Minimum Setback Standards
From side property lines	Five (5) feet for moorage pile; otherwise 10 feet
From lot containing a detached dwelling unit	The area defined by a line that starts where the OHWM of the lot (containing a detached dwelling unit) intersects the side property line of the lot (containing the side property line) closest to the moorage structure and runs waterward toward the moorage structure and extends at a 30-degree angle from that side property line. This setback applies whether or not the subject property abuts the lot, but does not extend beyond any intervening overwater structure. This standard shall not apply within the Urban Mixed shoreline environment.
From another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required side property lines setback that intersect the OHWM	25 feet, except that this provision shall not apply to moorage piles
From outlet of a stream regulated under KZC 83.510, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
From public park	100 feet; or  The area defined by a line that starts where the OHWM of the park intersects with the side property line of the park closest to the moorage structure and extends at a 45-degree angle from the side property line. This setback applies whether or not the subject property abuts the park, but does not extend beyond any intervening overwater structure. This standard shall not apply within the Urban Mixed shoreline environment.

3. Number of Moorage Spaces – The City will limit the total number of moorage slips to one (1) per each dwelling unit on the subject property. In addition, each unit shall be allowed to moor jet skis or kayaks or similar watercraft on the property.

4. General Standards

- a. Must provide at least two (2) covered and secured waste receptacles upland of the OHWM.
- b. All utility and service lines located waterward of the OHWM must be affixed below the pier or dock deck and above the ordinary high water line. All utility and service lines located upland of the OHWM shall be underground, where feasible.
- c. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
- d. Exterior finish shall be generally nonreflective.
- e. Moorage structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four (4) inches high.

f. See KZC 83.470, Lighting, for required lighting.

g. See KZC 83.420, Public Access, for required public access.

h. A mooring buoy may be used to provide moorage space in lieu of a pier. No more than two (2) mooring buoys or a number equal to 10 percent of the dwelling units on the subject property, whichever is greater, is permitted. Water craft moored to a moorage Mooring-buoys shall be no closer than 30 feet from the OHWM and have a water depth that prevents moored boats from resting on the lakebed in water depths of nine (9) feet or greater based on ordinary high water, unless the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved an alternate proposal.

i. Pier bumpers are permitted if they meet the following standards

Maximum pier bumper width allowed is 10 inches. Spacing between bumpers must be at least four feet on center. Bumpers may not extend into the water more than 1.5 feet below the OHWM. The number of bumpers allowed is the minimum necessary to prevent a boat from going under a pier along the mooring tie up area. Bumpers may only be located where a boat is permanently moored. A limited number of bumpers may also be permitted in a designated tie-up area for guest moorage.

1.1 The following structures and improvements are not permitted:

- 1) Covered moorage, boathouses, or other walled covered moorage, except boat canopies that comply with the standards in this subsection.
- 2) Skirting on any structure.
- 3) Aircraft moorage.
- 4) Residential boat launches and boat rails.

## 5. New Pier or Dock Dimensional Standards

a. Moorage structures shall not be larger or longer than is necessary to provide safe and reasonable moorage for the boats to be moored. The length of the moorage structure shall be no greater than nearby structures based on the number of moorage slips. The length of the pier shall be measured from the most landward point of the OHWM.

The City will specifically review the size, length and configuration of each proposed moorage structure to help ensure that:

- 1) The moorage structure does not extend waterward beyond the point necessary to provide reasonable draft for the boats to be moored, but not beyond the outer harbor line;
- 2) The moorage structure is not larger than is necessary to moor the specified number of boats;
- 3) The moorage structure will not interfere with the public use and enjoyment of the water or create a hazard to navigation; and
- 4) The moorage structure will not have a significant long-term adverse effect on ecological functions.
- 5) The moorage structure design will prevent boats from sitting on the lakebed.

b. Piers and docks shall be the minimum size necessary to meet the needs of the proposed water-dependent use and shall observe the following standards:



New Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (Multifamily)	Dimensional and Design Standards
<b>Maximum Width</b>	<p>Four (4) feet within 30 feet of the OHWM for pier, dock walkway, ramp or floating deck</p> <p>Six (6) feet for pier or dock walkway more than 30 feet waterward of the OHWM</p> <p>Eight (8) feet for ells</p> <p>Four (4) feet for fingers, and shall be reduced to two (2) feet in those instances where the projection provides secure boat moorage but is not necessary for boat-user access</p> <p>Six (6) feet for float decking attached to a pier</p> <p><del>An alternative design in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies-</del></p>
<b>Height</b> of piers and diving boards	<p>Minimum of 1.5 feet above ordinary high water to bottom of pier stringers, except the floating section of a dock and float decking attached to a pier</p> <p>Maximum of three (3) feet above deck for diving boards or similar features above the deck surface</p> <p>Maximum of three (3) feet above deck for safety railing and gates, which shall be an open framework</p>
<del><b>Minimum Water Depth</b> for ells and float decking attached to a pier</del>	<p><del>Must be in water with depths of nine (9) feet or greater at the landward end of the ell or finger</del></p> <p><del>Must be in water with depths of 10 feet or more at the landward end of the float</del></p> <p><del>An alternative design in lieu of meeting these requirements shall be allowed if approved by the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife</del></p>
<b>Decking</b> for piers, docks, walkways, platform lifts, ells and fingers	<p>Must be fully grated or contain other materials that allow a minimum of 40 percent light transmittance through the material</p> <p>If float tubs for docks preclude use of fully grated decking material, then a minimum of two (2) feet of grating down the center of the entire float shall be provided</p>
<b>Location</b> of ells, fingers and deck platforms	<p>No closer than 30 feet waterward of the OHWM, measured perpendicular to the OHWM, <u>and located near the terminal (waterward) end of the pier</u></p> <p>Within 30 feet of the OHWM, only access walkway or ramp portion of pier or dock is allowed</p>
<b>Pier Pilings and Moorage Piles</b>	<p><u>Pier</u> Pilings or moorage piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds</p> <p>First set of pilings for a pier or dock shall be located no closer than 18 feet from OHWM.</p> <p>Moorage piles shall be located no closer than 30 feet from the OHWM or any farther waterward than the end of the pier or dock.</p>
<b>Mitigation</b>	Plantings and other mitigation as described in subsection <del>(6)</del> of this section

6. Mitigation – All proposals involving new piers or docks are subject to the following mitigation requirements:
  - a. Any existing in-water and overwater structures shall be removed if they are associated with either a moorage structure or other recreational use that is located within 30 feet of the OHWM, unless such structures are incorporated into the new pier or dock proposal and conform to the regulations in this section. Any incorporated existing structure is considered part of the new structure for purposes of calculating allowed area.

b. Emergent vegetation shall be planted waterward of the OHWM along 75 percent of the shoreline frontage, unless the City determines that it is not appropriate or feasible.

c. For properties containing bulkheads, native trees, shrubs and groundcover plantings shall include species which promote growth overhanging the water.

de. Native riparian vegetation shall be planted in at least 75 percent of the nearshore riparian area located along the water's edge. The vegetated portion of the nearshore riparian area shall average 10 feet in depth upland from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 10-foot-wide area.

e. Joint-use piers will require a vegetative riparian zone along all properties sharing the pier.

fd. Mitigation plantings shall be subject to the following requirements:

1) Mitigation plantings shall be native vegetation and shall consist of a mixture of trees, shrubs and groundcover designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline and shrubs planted to attain coverage of at least 60 percent of area in two (2) years must be included in the plan. Plant materials must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester. Plant density and spacing shall be appropriate for the site and commensurate with spacing recommended for each individual species proposed.

2) ~~An alternative planting plan or mitigation measure in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies. In addition, t~~The City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity; provided, that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. Existing non-native plants may remain but shall not be counted towards meeting the vegetation requirement.

3) Vegetation Placement – See the provisions contained in KZC 83.400.

4) In addition to a native planting plan, a 5-year vegetation maintenance and monitoring plan shall be prepared by a qualified professional approved by the Planning Official and submitted to the City for approval. The monitoring plan shall include the following elements:

a) Preparation of as-built drawings after installation of the mitigation plantings;

b) Annual monitoring reports for five (5) years, that include written and photographic documentation on tree and shrub mortality, subject to the following success criteria:

1) One hundred (100) percent survival of all planted native trees and shrubs during the first two (2) years after planting; and

2) One hundred (100) percent survival of trees and 80 percent survival of remaining native plants in years three (3) through five (5).

~~Copies of reports that are submitted to state or federal agencies in compliance with permit approvals may be submitted in lieu of a separate report to the City, provided that the reports address a 5-year maintenance and monitoring plan.~~

5) Woody debris existing on-site or contributed to the site as part of the mitigation efforts shall not be removed.

## 7. Replacement, Additions and Repairs

a. Replacement – Replacement of piers and docks serving detached, attached or stacked dwelling units shall be considered under the provisions for new piers and docks serving detached, attached or stacked dwelling units established in subsection (5) of this section when the entire existing pier or dock is replaced, including piles or when more than 50 percent of the pier-support piles and more than 50 percent of the decking or decking substructure is replaced (e.g., stringers). When the replacement pier or dock is not larger than the existing structure, no mitigation is required. However, when the replacement structure is larger than the existing structure, the mitigation requirements that apply to additions to piers and docks in subsection (7)(b) of this section shall be met.

b. Additions – Proposals involving the addition to or enlargement of existing piers or docks, including replacement piers or docks that are larger than the existing structure, must comply with the following measures:

<b>Additions to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (Multifamily)</b>	<b>Requirements</b>
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the enlargement of an existing pier or dock
<b>Dimensional standards</b>	Enlarged portions must comply with the new pier or dock dimensional standards for length, width, height, <del>water depth</del> , location, decking material and pilings and for materials as described in subsection (5) of this section
<b>Decking</b> for piers, docks, walkways, ells and fingers	Must convert an area of existing decking within 30 feet of the OHWM with grated decking equivalent in size to the additional surface coverage. Grated or other materials must allow a minimum of 40 percent light transmittance through the material
<b>Mitigation</b>	Plantings and other mitigation as described in subsection (6) of this section The following improvements shall be removed: 1. Existing skirting shall be removed and may not be replaced. 2. Existing in-water and overwater structures located within 30 feet of the OHWM shall be removed at a 1:1 ratio to the area of the addition, except for existing or authorized shoreline stabilization measures and pier or dock walkways or ramps. 3. For the RMA zone, any other piers or docks and covered boat moorage structures located on the subject property, except for boat canopies that comply with this section, must be removed. <u>If two piers exist on the subject property, the more non-conforming shall be removed.</u>

c. Repair – Repair proposals that replace only decking or decking substructure and less than 50 percent of the existing pier-support piles must comply with the ~~following~~ following:

<b>Minor Repair to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (Multifamily)</b>	<b>Requirements</b>
Replacement pilings or moorage piles	Must use materials as described under subsection (5) of this section Must minimize the size of pilings or moorage piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design considerations
Replacement of 50 percent or more of the decking OR 50 percent or more of decking substructure	Must replace any solid decking surface of the pier or dock located within 30 feet of the OHWM with a grated surface material that allows a minimum of 40 percent light transmittance through the material. <u>New decking shall comply with the pier dimensional standards of 83.280.5 to the maximum extent feasible.</u>

Other repairs to existing legally established moorage facilities where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing pier or dock would make a proposed repair exceed the threshold established in subsection (7)(c) of this section, the repair proposal shall be reviewed under this section for a new pier or dock.

8. Boat Lifts and Boat Lift Canopies for Serving Detached, Attached or Stacked Dwelling Units – Boat lifts and boat lift canopies may be permitted as an accessory to piers and docks, subject to the following regulations:

Boat Lift and Boat Canopy for Detached, Attached or Stacked Dwelling Units (Multifamily)	Regulations
<b>Location</b>	<p>Boat lifts shall be placed as far waterward of the OHWM as feasible and safe, within the limits of the dimensional standards for piers and docks established in subsection (5) of this section</p> <p>Bottom of a boat lift canopy shall be elevated above the boat lift to the maximum extent feasible, the lowest edge of the canopy must be at least four (4) feet above the ordinary high water mark and the top of the canopy must not extend more than <del>12</del> <u>seven (7)</u> feet above an associated pier.</p>
<b>Maximum Number</b>	<p>One (1) freestanding or deck-mounted boat lift is allowed per dwelling unit on the subject property</p> <p>Two (2) jet ski lifts or one (1) fully grated platform lift is permitted per dwelling unit on the subject property</p> <p>Two (2) boat lift canopies or equal to 10 percent of the dwelling units on the subject property, whichever is greater</p>
<b>Canopy Materials</b>	Must be made of translucent <del>fabrie</del> materials
<b>Fill for Boat Lift</b>	<p>Maximum of two (2) cubic yards of fill are permitted to anchor a boat lift, subject to the following requirements:</p> <ul style="list-style-type: none"> <li>• May only be used if the substrate prevents the use of anchoring devices that can be embedded into the substrate</li> <li>• Must be clean</li> <li>• Must consist of rock or pre-cast concrete blocks</li> <li>• Must only be used to anchor the boat lift</li> <li>• Minimum amount of fill is utilized to anchor the boat lift</li> </ul>

9. Submittal Requirements – In addition to submitting an application to construct a new, enlarged or replacement pier or dock, the applicant shall submit an assessment of the impacts and measures taken to avoid, minimize, and mitigate impacts. See KZC 83.360 for requirements on mitigation sequencing.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### 83.290 Marinas and Moorage Facilities Associated with Commercial Uses and Public Parks

#### 1. General

- a. Marinas shall not be approved in cases where it is reasonably foreseeable that the development or use would require maintenance dredging and/or installation of a breakwater during the life of the development or use.
- b. See KZC 83.370 for structures to be extended waterward of the inner harbor line.
- c. Marinas shall be designed and located according to the following criteria:

- 1) Shall not interfere with the public use and enjoyment of the water or create a hazard to navigation;
- 2) Shall meet KZC 83.360 for mitigation sequencing; and
- 3) Shall be located only at sites with sufficient water depth, adequate navigational and vehicular access, and not adjacent to an outlet of a stream.

d. For public parks, also see KZC 83.220.5

2. Setback – Marinas and moorage facilities shall comply with the following location standards:

Marinas and Moorage Facilities Associated with Commercial Uses <u>and Public Parks</u>	Minimum Setback Standards
From side property lines	10 feet
From lot containing a detached dwelling unit	The area defined by a line that starts where the OHWM of the lot (containing a detached dwelling unit) intersects the side property line of the lot (containing a detached dwelling unit) closest to the moorage structure and runs waterward toward the moorage structure and extends at a 30-degree angle from that side property line. This setback applies whether or not the subject property abuts the lot, but does not extend beyond any intervening overwater structure. This standard shall not apply within the Urban Mixed shoreline environment.
From another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required side property lines setback that intersect the OHWM	25 feet
From outlet of a stream regulated under KZC 83.510, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
From public park	100 feet; or  The area defined by a line that starts where the OHWM of the park intersects with the side property line of the park closest to the moorage structure and extends at a 45-degree angle from the side property line. This setback applies whether or not the subject property abuts the park, but does not extend beyond any intervening overwater structure. This standard shall not apply within the Urban Mixed shoreline environment.

3. Number of Moorage Slips – The City will determine the maximum allowable number of moorages based on the following factors:

- a. The suitability of the environmental conditions, such as, but not limited to: the presence of submerged aquatic vegetation, proximity to shoreline associated wetlands, critical nesting and spawning areas, water depth, water circulation, sediment inputs and accumulation, and wave action.
- b. The ability of the land upland of the OHWM to accommodate the necessary support facilities.
- c. The demand analysis submitted by the applicant to demonstrate anticipated need for the requested number of moorages.

4. General Standards

- a. See KZC 83.370 for required state and federal approval.
- b. Structures, other than approved moorage structures or public access piers, shall not be waterward of the OHWM. For regulations regarding public access piers, see KZC 83.220.
- c. At least ~~two~~one (21) covered and secured waste receptacles shall be provided upland of the OHWM.

d. Utility and service lines located waterward of the OHWM must be affixed below the pier deck and above the ordinary high-water line. Utility and service lines located upland of the OHWM shall be underground, where feasible.

e. Public restrooms shall be provided upland of the OHWM.

f. At least one (1) pump-out facility for use by the general public shall be provided if another facility is not already located nearby. This facility must be easily accessible to the general public and clearly marked for public use.

f.g. Transient moorage may be required as part of a marina if the site is in an area near commercial facilities generating commercial transient moorage demand.

g.h. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.

h.i. Exterior finish shall be generally nonreflective.

i.j. Moorage structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four (4) inches high.

j.k. See KZC 83.470 concerning standards for required lighting.

k.l. See KZC 83.420 concerning required public access.

l.m. Covered moorage, including boat lift canopies, is not permitted.

m.n. Aircraft moorage is not permitted, except as associated with an approved float plane landing and mooring facility.

n.o. Marinas and other moorage facilities associated with commercial uses shall be designed and operated consistent with federal and state water quality laws and established best management practices (BMPs) for marina operators, including BMPs for bilge water discharge, hazardous waste, waste oil and spills, sewer management, and spill prevention and response. Rules for spill prevention and response, including reporting requirements, shall be posted on site.

o.p. Boats moored within marinas shall comply with the mooring restrictions contained in Chapter 14.16 KMC.

q. Pier bumpers are permitted if they meet the following standards

Maximum pier bumper width allowed is 10 inches. Spacing between bumpers must be at least four feet on center. Bumpers may not extend into the water more than 1.5 feet below the OHWM. The number of bumpers allowed is the minimum necessary to prevent a boat from going under a pier along the mooring tie up area. Bumpers may only be located where a boat is permanently moored. A limited number of bumpers may also be permitted in a designated tie-up area for guest moorage.

## 5. New Pier or Dock Dimensional Standards

a. Moorage structures shall not be larger than is necessary to provide safe and reasonable moorage for the boats to be moored. The City will specifically review the size and configuration of each proposed moorage structure to help ensure that:

- 1) The moorage structure does not extend waterward beyond the point necessary to provide reasonable draft for the boats to be moored, but not beyond the outer harbor line;
- 2) The moorage structure is not larger than is necessary to moor the specified number of boats; and

3) The moorage structure must be designed to preclude moorage in locations that would have insufficient water depth to avoid boats resting at any time of year on the substrate of the lake.

b. For public access piers, docks or boardwalks associated with public parks and other public facilities see KZC 83.220~~(5)~~ for allowed width of the structure.

c. Piers and docks shall be the minimum size necessary to meet the needs of the proposed water-dependent use and shall meet the following dimensional and design standards:

<b>New Marinas and Moorage Facilities Associated with Commercial Uses <u>and</u> <u>Public Parks</u></b>	<b>Dimensional and Design Standards</b>
<b>Maximum Width</b>	<p>Six (6) feet for access walkway or ramp portion of pier or dock and primary walkways</p> <p>Eight (8) feet for ells</p> <p>Four (4) feet for fingers, and shall be reduced to two (2) feet in those instances where the projection provides secure boat moorage but is not necessary for boat-user access</p> <p>Six (6) feet for float decking attached to a pier</p> <p><del>An alternative design in lieu of meeting these requirements may be allowed if approved by other state and federal agencies</del></p>
<b>Height</b> of piers, diving boards and railings	<p>Minimum of 1.5 feet above ordinary high water to bottom of pier stringer, except the floating section of a dock and float decking attached to a pier</p> <p>Maximum of three (3) feet above deck for diving boards or similar features above the deck surface</p> <p>Maximum of three (3) feet above deck for safety railing and gates, which shall be an open framework</p>
<b>Decking</b> for piers, docks walkways, ells and fingers	<p>Fully grated or contain other materials that allow a minimum of 40 percent light transmittance through the material</p> <p>If float tubs for docks preclude use of fully grated decking material, then a minimum of two (2) feet width of grating down the center of the entire float shall be provided</p>
<b>Location</b> of ells, fingers and deck platforms	<p>No closer than 50 feet waterward of the OHWM, measured perpendicular to the OHWM</p> <p>Within 50 feet of the OHWM, only access walkway or ramp portion of pier or dock is allowed</p> <p><del>An alternative design in lieu of meeting these requirements may be allowed if the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved an alternate proposal.</del></p>
<b><u>Pier</u> Pilings</b>	<p>First set of <u>pier</u> pilings for the moorage facility located no closer than 18 feet from OHWM</p> <p><u>Moorage piles shall be no closer than 30 feet from the OHWM or any farther waterward than the end of the pier.</u></p> <p><u>Pier</u> Pilings or <u>moorage</u> piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds</p>
<b>Mitigation</b>	As required through mitigation sequencing in KZC 83.360

## 6. Replacement, Additions and Repairs

a. Replacement – Replacement of marinas or portions thereof shall be considered under the provisions for new marinas established in subsection (5) of this section. However, the mitigation requirement for additions to marina facilities associated with commercial uses in subsection (6)(b) of this section shall be met and not mitigation requirements for new marinas and moorage facilities associated with commercial uses in subsection (5) of this section.



- b. Additions – Proposals involving the modification and/or enlargement of marinas must comply with the following measures:

<b>Additions to Marinas and Moorage Facilities Associated with Commercial Uses and Public Parks</b>	<b>Requirements</b>
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the enlargement of an existing pier or dock
<b>Dimensional standards</b>	Enlarged portions must comply with the new pier dimensional standards for pier or dock length and width, height, water depth, location, decking and pilings and for materials
<b>Decking</b> for piers, docks, walkways, ells and fingers	Must convert an area of existing decking within 30 feet of the OHWM to grated decking equivalent in size to the additional surface coverage that allows a minimum of 40 percent light transmittance through the material
<b>Mitigation</b>	As determined through mitigation sequencing in KZC 83.360  Existing skirting shall be removed and may not be replaced  Existing in-water and overwater structures located within 50 feet of the OHWM, except for existing or authorized shoreline stabilization measures or pier or dock walkways or ramps, shall be removed at a 1:1 ratio to the area of the addition

- c. Repair – Repair proposals that replace only decking or decking substructure and are less than 50 percent of the existing pier-support piles must comply with the following:

<b>Minor Repair to Marinas and Moorage Facilities Associated with Commercial Uses and Public Parks</b>	<b>Requirements</b>
<b>Replacement pier pilings or moorage piles</b>	Must use materials as described under subsection (5) of this section  Must minimize the size of pier pilings or moorage piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design considerations
<b>Replacement of 10 percent or more of the decking</b> or decking substructure	Must replace any solid decking surface of the pier or dock located within 30 feet of the OHWM with a grated surface material. <u>New decking shall comply with the pier dimensional standards of 83.290.5 to the maximum extent feasible.</u>
<b>Repair of the roof structure</b> of existing boathouses or other similar covered moorage	Must use translucent materials

Other repairs to existing legally established marinas where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing marina would make a proposed repair exceed the threshold established in subsection (6)(c) of this section, the repair proposal shall be reviewed under this section for a new marina.

7. Submittal Requirements – In addition to submitting an application, the applicant shall submit the following as part of a request to construct a new, enlarged, or replacement marina or its associated facilities:

- An assessment of the anticipated need for the requested number of moorages and ability of the site to accommodate the proposal, considering such factors as environmental conditions, shoreline configuration, access, and neighboring uses.
- An assessment of the impacts and measures taken to avoid, minimize, and mitigate impacts. See KZC 83.360 for mitigation sequencing.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### 83.300 Shoreline Stabilization

#### 1. General

- a. The standards in this section apply to all developments and uses in shorelines jurisdiction.
- b. New development or redevelopment shall be located and designed to avoid the need for new or future soft or hard structural shoreline stabilization to the extent feasible.
- c. If structural stabilization is necessary to protect the primary structure, then the feasibility of soft structural measures shall be evaluated prior to consideration of hard structural measures. Soft structural stabilization measures must be used unless the City determines that it is not feasible based on information required in this section and provided by the applicant.
- d. Soft shoreline stabilization may include the use of gravels, cobbles, [occasional habitat](#) boulders, and logs, as well as vegetation.
- e. Plates 43A and 43B provides guidance on different shoreline stabilization measures that may be considered, based upon the unique characteristics of the subject property and shoreline.
- f. During construction or repair work on a shoreline stabilization measure, areas of temporary disturbance within the shoreline setback shall be restored as quickly as feasible to their pre-disturbance condition or better to avoid impacts to the ecological function of the shoreline. Also see KZC 83.430 for in-water construction activity.
- g. The following is a summary of the key requirements found in subsections (2) through (13) of this section:

Shoreline Stabilization Measures	Requirements
Structural and Nonstructural Methods	Nonstructural methods preferred, but if there is a demonstrated need for a structural stabilization measure to protect primary structure, then soft structural stabilization must be considered prior to hard structural stabilization
New or Enlargement of Hard Shoreline Structural Measures (enlargement includes additions and increases in size, such as height, width, length, or depth, to existing shoreline stabilization measures) (See subsections (2)(a) and (b), (3)(a) and (b), (8), (9), (10) and (11) of this section)	Allowed when existing primary structure is 10 feet or less from OHWM  When existing primary structure is greater than 10 feet from OHWM, requires geotechnical report to show need, an evaluation of the feasibility of soft rather than hard structural shoreline stabilization measures and design recommendations for minimizing structural shoreline measures  Requires mitigation plantings
Major Repair or <a href="#">Major Replacement</a> of Hard Shoreline Structural Measures (See subsections (4), (5), (8), (9), (10) and (12) of this section)	A major repair is repair of a collapsed or eroded structure or a demonstrated loss of structural integrity, or repair of toe rock or footings of more than 50 percent in continuous linear length; or  A major repair is repair to more than 75 percent of the linear length of structure that involves replacement of top or middle course rocks or other similar repair  Allowed when existing primary structure is 10 feet or less from OHWM  When existing primary structure is more than 10 feet from the OHWM, requires a written narrative that provides a demonstration of need
Minor Repair or <a href="#">Minor Replacement</a> of Hard Shoreline Stabilization Measure (See subsections (6), (9) and (10) of this section)	Does not meet threshold of new, enlarged, major repair or replacement measurement  No geotechnical report or needs assessment required
New or Enlarged of Soft Shoreline Stabilization Measure	Allowed when existing primary structure is 10 feet or less from OHWM or for repair or replacement.

Shoreline Stabilization Measures	Requirements
<i>(See subsections (2)(a) and (b), (3)(b), (8), (9), (10) and (13) of this section)</i>	For primary structure greater than 10 feet from the OHWM, new or enlarged requires a written narrative that provides a demonstration of need
Repair or Replacement of Soft Shoreline Stabilization Measure or Replacement of Hard to Soft Shoreline Stabilization Measure <i>(See subsections (7), (8), (9), (10) and (13) of this section)</i>	No demonstration of need required; provided, that replacement or repair is an equal or softer measure than existing measure

## 2. New or Enlarged Structural Shoreline Stabilization

a. For the purposes of this section, enlargement of an existing structural stabilization shall include additions to or increases in size (such as height, width, length, or depth). Primary structure includes appurtenances listed under WAC 173-27-040, but not tool sheds, greenhouses, swimming pools, spas and other ancillary residential improvements listed in KZC 83.80(5).

b. When allowed:

The City may only approve a new or enlarged hard or soft structural stabilization measure in the following circumstances:

1) To protect an existing primary structure, including a detached dwelling unit, in either of the following circumstances:

- a) The existing primary structure is located 10 feet or less from the OHWM. For the purposes of this provision, the distance shall be measured to the most waterward location of the primary structure. No geotechnical analysis or needs assessment is required; or
- b) The existing primary structure is located more than 10 feet from the OHWM.

In order to be approved, the applicant must demonstrate the following:

- 1) For new or enlarged hard structural stabilization, conclusive evidence, documented by a geotechnical analysis that the primary structure is in danger from shoreline erosion caused by waves. The analysis must show that there is a significant possibility that an existing primary structure will be damaged within three (3) years as a result of shoreline erosion in the absence of hard structural stabilization measures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three (3) years, the report may still be used to justify more immediate authorization to protect against erosion using soft structural stabilization measures.
- 2) For new soft structural stabilization measures, demonstrate need for structural stabilization to protect the existing primary structure.
- 3) For hard and soft stabilization measures, any on-site drainage issues have been directed away from the shoreline edge prior to considering structural stabilization.
- 4) For hard and soft shoreline stabilization measures, nonstructural measures, such as planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to protect the primary structure.

2) To protect a new primary structure, including a detached dwelling unit, when all of the conditions below apply:

- a) For new non-water-dependent uses, placing the new primary structure farther upland from the OHWM is not feasible or not sufficient to prevent damage to the primary structure;

- b) Upland conditions, such as drainage problems and the loss of vegetation, are not causing the erosion;
    - c) Nonstructural measures, planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to prevent damage to the primary structure; and
    - d) The need to protect the new primary structures from potential damage is due to erosion from wave action. For hard structural stabilization measures, a geotechnical report must be submitted demonstrating need. For soft structural stabilization measures, an assessment by a qualified professional must be submitted demonstrating need.
  - 3) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements are not feasible or not sufficient.
3. Submittal Requirements for New or Enlarged Structural Stabilization Measures – In addition to the requirements described in subsection (2) of this section, the following shall be submitted to the City for an existing primary structure more than 10 feet from the OHWM or for a new primary structure:
- a. For a hard structural shoreline stabilization measure, a geotechnical report prepared by a qualified professional with an engineering degree. The report shall include the following:
    - 1) An assessment of the necessity for hard structural stabilization by estimating time frames and rates of erosion and documenting the urgency associated with the specific situation.
    - 2) An assessment of the cause of erosion, looking at processes occurring both waterward and landward of the OHWM and on-site drainage.
  - b. An assessment prepared by a qualified professional (e.g., shoreline designer or other consultant familiar with lakeshore processes and shore stabilization), containing the following:
    - 1) For a hard structural shoreline stabilization measure, an evaluation of the feasibility of using nonstructural or soft shoreline stabilization measures in lieu of hard structural shoreline stabilization measures. The evaluation shall address the feasibility of implementing options presented in Plate 43A or 43B based on an assessment of the subject property's characteristics.
    - 2) For a soft structural stabilization measure, an assessment of:
      - a) The erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the soft structural stabilization.
      - b) The feasibility of using nonstructural measures in lieu of soft structural shoreline stabilization measures.
    - 3) For both hard and soft structural shoreline stabilization measures, design recommendations for minimizing the sizing of shoreline stabilization materials, including gravel and cobble beach substrates necessary to dissipate wave energy, eliminate scour, and provide long-term shoreline stability.
    - 4) See additional submittal requirements in subsections (8), (9) and (10) of this section for general submittal requirements, maintenance agreement and general design standards.
4. ~~Replacement or~~ Major Repair or Major Replacement of Hard Structural Shoreline Stabilization
- a. For the purposes of this section, major repair or replacement of a hard shoreline stabilization measure shall include the following activities. For a subject property that has more than one section of bulkhead, the entire linear length of all sections of the bulkhead shall be calculated when determining the provisions below:

- 1) A repair needed to a portion of an existing stabilization structure that has collapsed, eroded away or otherwise demonstrated a loss of structural integrity, or in which the repair work involves modification of the toe rock or footings, and the repair is 50 percent or greater than the linear length of the shoreline stabilization measure; or
- 2) A repair to more than 75 percent of the linear length of the existing hard structural shoreline stabilization measure in which the repair work involves replacement of top or middle course rocks or other similar repair activities.

b. When Allowed – The City may only approve a major repair or replacement of an existing hard structural stabilization measure with a hard structural shoreline stabilization measure to protect existing primary structures or principal uses, including detached dwelling units, in either of the following circumstances:

- 1) The primary structure is located 10 feet or less from the OHWM. For the purposes of this provision, the distance shall be measured to the most waterward location of the primary structure; or
- 2) For a primary structure located more than 10 feet from the OHWM or a use, conclusive evidence is provided to the City that the primary structure or use is in danger from shoreline erosion caused by waves as required in subsection (5) of this section.

5. Submittal Requirements for Major Repairs or [Major](#) Replacements of Hard Stabilization Measures – The following shall be submitted to the City when the primary structure is located more than 10 feet landward of the OHWM or for a use with no primary structure:

a. Written narrative that provides a demonstration of need shall be submitted. A qualified professional (e.g., shoreline designer or other consultant familiar with lakeshore processes and shore stabilization), but not necessarily a licensed geotechnical engineer shall prepare a written narrative. The written narrative shall consist of the following:

- 1) An assessment of the necessity for hard structural stabilization, considering site-specific conditions such as water depth, orientation of the shoreline, wave fetch, and location of the nearest structure. The evaluation shall address the feasibility of implementing options presented in Plates 43A and 43B, given an assessment of the subject property's characteristics.
- 2) An assessment of erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the hard structural shoreline stabilization.
- 3) An assessment of the feasibility of using nonstructural or soft structural stabilization measures in lieu of hard structural shoreline stabilization measures. Soft stabilization may include the use of gravels, cobbles, [occasional habitat](#) boulders, and logs, as well as vegetation.

b. Design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.

c. See additional submittal requirements in subsections (8), (9) and (10) of this section for general submittal requirements, maintenance agreement and general design standards.

6. Minor Repairs or [Minor Replacement](#) of Hard Shoreline Stabilization – Minor repairs of hard shoreline stabilization include those maintenance and repair activities not otherwise addressed in subsection (5) of this section. The City shall allow minor repair activities to existing hard structural shoreline stabilization measures.

7. Repair or Replacement of Soft Shoreline Stabilization or Replacement of Hard Stabilization with Soft Shoreline Stabilization and Submittal Requirements

a. The City shall allow repair or replacement of soft shoreline stabilization, and replacement of hard shoreline stabilization with soft shoreline stabilization.

b. The applicant shall submit to the City design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.

c. See additional submittal requirements in subsections (8), (9) and (10) of this section for general submittal requirements, maintenance agreement and general design standards.

8. General Submittal Requirements for New, Enlarged, Replacement and Major Repair Measures – Detailed construction plans shall be submitted to the City, including the following:

a. Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWM. The plan must be prepared by a qualified professional, approved by the City, with knowledge in hydrology and construction of shoreline stabilization measures.

b. Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials shall be selected to accomplish the following objectives:

- 1) Protect the property and structures from erosion and other damage over the long term, and accommodate the normal amount of alteration from wind- and boat-driven waves;
- 2) Allow safe passage and migration of fish and wildlife; and
- 3) Minimize or eliminate juvenile salmon predator habitat.

c. For new or enlarged hard structural stabilization measures when shoreline vegetation is required as part of mitigation, a detailed 5-year vegetation maintenance and monitoring program to include the following:

- 1) Goals and objectives of the shoreline stabilization and vegetation plan;
- 2) Success criteria by which the implemented plan will be assessed;
- 3) A 5-year maintenance and monitoring plan, consisting of one (1) site visit per year by a qualified professional, with annual progress reports submitted to the Planning Official and all other agencies with jurisdiction;
- 4) A contingency plan in case of failure; and
- 5) Proof of a written contract with a qualified professional who will perform the monitoring.

d. Fee for a consultant selected by the City to review the shoreline stabilization plan, the monitoring and maintenance program, the geotechnical analysis report or narrative justification of demonstrated need if required, and drawings and attend a presubmittal meeting for the building permit. In the case of use of a consultant, the applicant shall sign the City's standard 3-party contract.

9. Maintenance Agreement for Hard and Soft Structural Stabilization – The applicant shall complete and submit a 5-year-period maintenance agreement, using the City's standard form, for recording to ensure maintenance of any structural shoreline stabilization measure.

10. General Design Standards – The following design standards shall be incorporated into any stabilization design:

a. Soft structural shoreline stabilization measures shall be used to the maximum extent feasible, limiting hard structural shoreline stabilization measures to the portion or portions of the site where necessary to connect to existing hard shoreline stabilization measures on adjacent properties. The length of hard structural shoreline stabilization connections to adjacent properties shall be minimized to the maximum extent feasible, and extend into the subject property from adjacent properties no more than needed.

- b. For enlarged, major repair or replacement of hard structural shoreline stabilization measures, excavation and fill activities associated with the structural stabilization shall be landward of the existing OHWM, except when not feasible due to existing site constraints or to mitigate impacts of hard structural stabilization by increasing shallow water habitat with gravel, rocks and logs.
- c. For short-term construction activities, hard and soft structural stabilization measures must minimize and mitigate any adverse impacts to ecological functions by compliance with appropriate timing restrictions, use of best management practices to prevent water quality impacts related to upland or in-water work, and stabilization of exposed soils following construction.
- d. For long-term impacts, new, enlarged or major repair or replacement of hard structural shoreline stabilization shall incorporate the following measures into the design wherever feasible.
  - 1) Limiting the size of hard structural shoreline stabilization measures to the minimum necessary, including height, depth, and mass.
  - 2) Shifting hard stabilization structure landward and/or sloping the structure landward to provide some dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.
- e. For new and enlarged hard or soft shoreline stabilization, the following additional measures shall be incorporated into the design:
  - 1) To increase shallow-water habitat, install gravel/cobble beach fill waterward of the OHWM, grading slope to a maximum of one (1) vertical (v): four (4) horizontal (h). The material shall be sized and placed to remain stable and accommodate alteration from wind- and boat-driven waves.
  - 2) Plant native riparian vegetation as follows:
    - a) At least 75 percent of the nearshore riparian area located along the edge of the OHWM shall be planted.
    - b) The vegetated portion of the nearshore riparian area shall average 10 feet in depth upland from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement; provided, that the total square footage of the area planted equals 10 feet along the water's edge.
    - c) Mitigation plantings shall be native vegetation consisting of a mixture of trees, shrubs and groundcover designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline and shrubs planted to attain coverage of at least 60 percent of area in two (2) years must be included in the plan.
    - d) Plant materials must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
    - e) An alternative planting plan or mitigation measure in lieu of meeting this section shall be allowed [pursuant to Section 83.400.3.f if approved by other state and federal agencies](#). In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.
    - f) Standards for vegetation placement are provided in KZC 83.400.
- f. Hard and soft shoreline stabilization measures shall be designed to not significantly interfere with normal surface and/or subsurface drainage into Lake Washington, constitute a hazard to navigation or extend waterward more than the minimum amount necessary to achieve effective stabilization.



- g. Hard and soft stabilization measures are allowed to have gravel, logs and rocks waterward of the OHWM, as approved by the City and federal and state agencies, to provide enhancement of shoreline ecological functions through creation or enhancement of nearshore shallow-water habitat.
- h. Stairs or other water access measures may be incorporated into the shoreline stabilization, but shall not extend waterward of the shoreline stabilization measure.
- i. The shoreline stabilization measures shall be designed to ensure that the measures do not restrict public access or make access unsafe to the shoreline, except where such access is modified under the provisions of KZC 83.420 for public access. Access measures shall not extend farther waterward than the face of the shoreline stabilization structure.
- j. See subsections (11) and (12) of this section concerning additional design standards for hard structural stabilization and subsection (13) of this section for soft structural stabilization.

11. Specific Design Standards for New or Enlarged Hard Structural Stabilization – In addition to the general design standards in subsection (10) of this section, the following design standards shall be incorporated:

- a. Where hard stabilization measures are not located on adjacent properties, the construction of a hard stabilization measure on the site shall tie in with the existing contours of the adjoining properties, as feasible, such that the proposed stabilization will not cause erosion of the adjoining properties.
- b. Where hard stabilization measures are located on adjacent properties, the proposed hard stabilization measure may tie in flush with existing hard stabilization measures on adjoining properties, but by no more than as reasonably required. The new hard stabilization measure shall not extend waterward of OHWM, except as necessary to make the connection to the adjoining hard stabilization measures. No net intrusion into the lake and no net creation of upland shall occur with the connection to adjacent stabilization measures.
- c. Fill behind hard shoreline stabilization measures shall be limited to an average of one (1) cubic yard per running foot of bulkhead. Any filling in excess of this amount shall be considered a regulated activity subject to the regulations in this chapter pertaining to fill activities and the requirement for obtaining a shoreline substantial development permit.

12. Specific Design Standards for Replacement of Hard Structural Stabilization – Replacement hard structural stabilization measures shall not encroach waterward of the OHWM or waterward of the existing shoreline stabilization measure unless the primary structure was constructed prior to January 1, 1992 (RCW 90.58.100(6) and WAC 173-26-241 and 173-26-231(3)(j)), and there are overriding safety or environmental concerns if the stabilization measure is moved landward of the OHWM. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. All other replacement structures shall be located at or landward of the existing shoreline stabilization structure.

13. Specific Design Standards for Soft Structural Stabilization – In addition to the general submittal requirements in subsection (8) of this section and the general design standards in subsection (10) of this section, the following design standards shall be incorporated:

- a. Provide sufficient protection of adjacent properties by tying in with the existing contours of the adjoining properties to prevent erosion at the property line. Proposals that include necessary use of hard structural stabilization measures only at the property lines to tie in with adjacent properties shall be permitted as soft structural shoreline stabilization measures. The length of hard structural stabilization connections to adjacent properties shall be the minimum needed and extend into the subject property from adjacent properties as reasonably required.
- b. Size and arrange any gravels, cobbles, logs, and boulders so that the improvement remains stable in the long-term, prevents upland erosion, dissipates wave energy, without presenting extended linear faces to oncoming waves, and minimizes impact to assure no net loss of ecological function.

14. Expansion of SMA Jurisdiction from Shift in OHWM – If a shoreline stabilization measure from any action required by this chapter or intended to improve ecological functions results in shifting the OHWM landward of the pre-modification location that expands the shorelines jurisdiction onto any property other than the subject property, then as part of the shoreline permit process found in Chapter 141 KZC:

- a. The City shall notify the affected property owner in writing; and
- b. The City may propose to grant relief for the affected property owners from applicable shoreline regulations resulting in expansion of the shorelines jurisdiction. The proposal to grant relief must be submitted to the Department of Ecology with the shoreline permit under the procedures established in KZC 141.70. If approved, notice of the relief, in a form approved by the City Attorney, shall be recorded on the title of the affected property with the King County Recorder's office.

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.310 Breakwaters, Jetties, Groins**

1. Breakwaters, jetties, and groins are not permitted in the Natural, Urban Conservancy, or Residential – L shoreline environments. Breakwaters, jetties, and groins may only be permitted in other shoreline environments where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose.
2. The City will permit the construction and use of a breakwater, jetty or groin only if:
  - a. The structure is essential to the safe operation of a moorage facility or the maintenance of other public water-dependent uses, such as swimming beaches;
  - b. The City determines that the location, size, design, and accessory components of the moorage facility or other public water-dependent uses to be protected by the breakwater are distinctly desirable and within the public interest; and
  - c. The benefits to the public provided by the moorage facility or other public water-dependent uses protected by the breakwater outweigh any undesirable effects or adverse impacts on the environment or nearby waterfront properties.
3. Design Standards
  - a. All breakwaters, jetties or groins must be designed and constructed under the supervision of a civil engineer or a similarly qualified professional. As part of the application, the engineer or the other professional designing the breakwater, jetty or groin must certify that it is the smallest feasible structure to meet the requirements of this chapter and accomplish its purpose and that the design will result in the minimum feasible adverse impacts upon the environment, nearby waterfront properties and navigation.
  - b. Breakwaters may only use floating or open-pile designs.

(Ord. 4251 § 3, 2010)

### **83.320 Dredging and Dredge Material Disposal**

1. New development shall be sited and designed to avoid or, if that is not feasible, to minimize the need for new and maintenance dredging.
2. Dredging waterward of the OHWM may be allowed for only the following purposes:
  - a. To establish, expand, relocate or reconfigure navigation channels and basins where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. Maintenance dredging of established navigation channels and basins must be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.

- b. To maintain the use of existing private or public boat moorage, water-dependent use, or other public access use. Maintenance dredging is restricted to maintaining previously dredged and/or existing authorized location, depth, and width.
  - c. To restore ecological functions, provided the applicant can demonstrate a clear connection between the proposed dredging and the expected environmental benefits to water quality and/or fish and wildlife habitat.
  - d. To obtain fill or construction material when necessary for the restoration of ecological functions. Dredging waterward of the OHWM for the primary purpose of obtaining fill or construction materials is not permitted under other circumstances. When allowed, the site where the fill is to be placed must be located waterward of the OHWM. The project must be associated with a significant habitat enhancement project.
3. Depositing dredge materials waterward of the OHWM shall only be allowed in approved sites, only when the material meets or exceeds state pollutant standards, and only for the purposes of fish or wildlife habitat improvement or permitted beach enhancement.
4. Dredging Design Standards
- a. All permitted dredging must be the minimum area and volume necessary to accommodate the existing or proposed use, and must be implemented using practices that do not exceed state water quality standards.
  - b. Dredging projects shall be designed and carried out to prevent direct and indirect impacts on adjacent properties.
5. Submittal Requirements – The following information shall be required for all dredging applications:
- a. A description of the purpose of the proposed dredging.
  - b. A detailed description of the existing physical character, shoreline geomorphology and biological resources provided by the area proposed to be dredged, including:
    - 1) A site plan map outlining the perimeter of the proposed dredge area. The map must also include the existing bathymetry depths based on the OHWM and have data points at a minimum of 2-foot depth increments.
    - 2) A habitat survey identifying aquatic vegetation, potential native fish spawning areas, or other physical or biological habitat parameters.
    - 3) Information on the stability of lakebed adjacent to proposed dredging area.
    - 4) Information on the composition of the material to be removed.
  - c. A description of:
    - 1) Dredging procedure, including length of time it will take to complete dredging, method of dredging, and amount of material removed.
    - 2) Where the materials will be placed to allow for sediment to settle, by what means the materials will be transported away from the dredge site, and specific approved land or open-water disposal site.
    - 3) Plan for anticipated future maintenance dredging and disposal, including frequency and quantity, for at least a 20-year period.
  - d. Copies of state and federal approvals.

(Ord. 4251 § 3, 2010)

### **83.330 Land Surface Modification**

1. General – The following standards must be met for any approved land surface modification:
  - a. Land surface modification within required shoreline setback shall only be permitted as authorized by a valid shoreline permit, building permit or land surface modification permit under the provisions established in KMC Title 29.
  - b. The land surface modification shall be consistent with the provisions of this chapter, including, but not limited to, the regulations regarding streams, wetlands and their buffers, geologically hazardous areas, shoreline vegetation, and trees.
  - c. The land surface modification is consistent with the provisions of the most current edition of the Public Works Department's Pre-Approved Plans and Policies.
  - d. All excess material resulting from land surface modification shall be disposed of in a manner that prevents the material entering into a waterbody through erosion or runoff. Where large quantities of plants are removed by vegetation control activities authorized under this section, plant debris shall be collected and disposed of in an appropriate location located outside of the shoreline setback.
  - e. Areas disturbed by permitted land surface modification in the shoreline setback shall be stabilized with approved vegetation.
  - f. All materials used as fill shall be nondissolving and nondecomposing. Fill material shall not contain organic or inorganic material that would be detrimental to water quality or existing habitat, or create any other significant adverse impacts to the environment.
  - g. The land surface modification must be the minimum necessary to accomplish the underlying reason for the land surface modification.
  - h. Except as is necessary during construction, dirt, rocks and similar materials shall not be stockpiled on the subject property. If stockpiling is necessary during construction, it must be located as far as feasible from the lake and strictly contained to prevent erosion and runoff.
2. Permitted Activities
  - a. Land surface modification is prohibited within the shoreline setback, except for the following:
    - 1) For the purpose of shoreline habitat and natural systems enhancement projects, setting back shoreline stabilization measures or portions of shoreline stabilization measures from the OHWM, or soft structural shoreline stabilization measures under a plan approved by the City.
    - 2) Associated with the installation of improvements located within the shoreline setback or waterward of the OHWM, as permitted under KZC 83.190(2).
    - 3) Removal of prohibited vegetation.
    - 4) As performed in the normal course of maintaining existing vegetation on a lot associated with existing buildings, provided such work:
      - a) Does not modify any drainage course.
      - b) Does not involve the importation of fill material, except as needed for mulch or soil amendment.
      - c) Does not involve removal of native vegetation or vegetation installed as part of an approved restoration or enhancement plan, unless approved by the Planning Official.
      - d) Does not result in erosion of the shoreline or undermine stability of neighboring properties.

- e) Does not result in the compaction of existing soils in a manner that significantly decreases the ability of the soil to absorb rainfall.
  - f) Is the minimum extent necessary to reasonably accomplish the maintenance activity.
  - 5) Correction of storm drainage improvements when supervised by the Department of Public Works.
  - 6) As necessary to maintain or upgrade the structural safety of a legally established structure.
  - 7) For exploratory excavations under the direction of a professional engineer licensed in the state of Washington, as long as the extent of the land surface modification does not exceed the minimum necessary to obtain the desired information.
- b. Land surface modification outside of the shoreline setback is regulated as land surface modifications throughout the City. See KMC Title 29 for those regulations.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.340 Fill**

1. Fill shall be permitted only where it is demonstrated that the proposed action will not:
  - a. Result in significant damage to water quality, fish, aquatic habitat, and/or wildlife habitat; or
  - b. Adversely alter natural drainage and circulation patterns, currents, or stream flows, or significantly reduce floodwater-holding capabilities.
2. Fills landward and waterward of the OHWM shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area.
3. Fills waterward of the OHWM shall be permitted only:
  - a. In conjunction with an approved water-dependent use or public access use, including maintenance of beaches; or
  - b. As part of an approved mitigation or restoration project.
4. Any placement of materials landward of the OHWM shall comply with the provisions in KZC 83.330 for land surface modification.
5. No refuse disposal sites, solid waste disposal sites, or sanitary fills shall be permitted.

(Ord. 4251 § 3, 2010)

### **83.350 Shoreline Habitat and Natural Systems Enhancement Projects**

1. Purpose – Shoreline habitat and natural systems enhancement projects include those activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines.
2. Covered Activities – The following actions are allowed under this section, provided they first meet the purpose stated in subsection (1) of this section:
  - a. Establishment or enhancement of native vegetation.
  - b. Removal of nonnative or invasive plants upland of the OHWM, including only those identified as noxious weeds on King County's published Noxious Weed List, unless otherwise authorized by the City.
  - c. Conversion of hard structural shoreline stabilization to soft shoreline stabilization, including associated clearing, dredging and filling necessary to implement the conversion, provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

- d. Implementation of any project or activity identified in the City's Restoration Plan.
- e. Implementation of any project or activity identified in the Final WRIA 8 Chinook Salmon Conservation Plan and related documents.

(Ord. 4251 § 3, 2010)

### General Regulations

#### 83.360 No Net Loss Standard and Mitigation Sequencing

##### 1. General

- a. If a proposal meets the specific standards, such as setbacks, pier dimensions and tree planting requirements, ~~are~~ provided in this chapter, then the City shall not require additional mitigation sequencing analysis under these provisions.
- b. In the following circumstances, the applicant shall provide an analysis of measures taken to mitigate environmental impacts:
  - 1) Where specific regulations for a proposed use or activity are not provided in this chapter such as for marinas; or
  - 2) Where either a conditional use or variance application is proposed;
  - 3) Where the standards contained in this chapter require an analysis of the feasibility of or need for an action or require analysis to determine whether the design has been minimized in size; and
  - 4) Where the standards provide for alternative compliance or mitigation measures.
- c. Under Chapter 173-26 WAC, uses and shoreline modifications along Kirkland's shoreline shall be designed, located, sized, constructed and/or maintained to achieve no net loss of shoreline ecological functions.
- d. Maintenance activities shall be conducted in a manner that minimizes impacts to fish, wildlife, and their associated habitat and utilizes best management practices, unless specific standards in this chapter are already provided for maintenance activities.
- e. Where evaluating the feasibility of a proposed action, the City shall consider whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of the proposed disturbance, including any continued impacts on functions and values over time.
- f. Where mitigation is required, the City shall consider alternative mitigation measures that are proposed by the applicant that may be less costly than those prescribed in this chapter; provided, that the alternatives are as effective in meeting the requirements of no net loss.
- g. Mitigation analysis of subsection 2 below shall be prepared by a qualified professional approved by the City. The applicant shall pay for peer review of the mitigation analysis by the City or the City's consultant if the City determines that it is needed.
- ~~h.~~ Off-site mitigation located within the City's shoreline jurisdiction may be considered if all or part of the required mitigation cannot be provided on-site due to the location of existing improvements or other site constraints.
- ~~i.~~ Prior to issuance of a certificate of occupancy or final inspection, the applicant shall provide a final as-built plan of any completed improvements authorized or required under this subsection. A document must be recorded containing all required conditions of the mitigation, including maintenance and monitoring through the life of the development, unless otherwise approved by the City, in a form acceptable to the City Attorney and recorded with the King County ~~Recorder's Office~~Bureau of Elections and Records. If the mitigation is located off-site, then the property owner of the mitigation site shall sign the agreement, which shall run with the

property, and provide land survey information of the mitigation location in a format approved by the Planning Official.

2. Mitigation Analysis – In order to assure that development activities contribute to meeting the no net loss provisions by avoiding, minimizing, and mitigating for adverse impacts to ecological functions or ecosystem-wide processes, an applicant required to complete a mitigation analysis pursuant to subsection (1) of this section shall utilize the following mitigation sequencing guidelines that appear in order of preference, during the design, construction and operation of the proposal:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- d. Reducing or eliminating the impact over time by preservation and maintenance operations;
- e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
- f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

Failure to demonstrate that the mitigation sequencing standards have been met may result in permit denial. The City may request necessary studies by qualified professionals to determine compliance with this standard and mitigation sequencing.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.370 Federal and State Approval**

1. All work at or waterward of the OHWM requires permits or approvals from one (1) or more of the following state and federal agencies: U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, or Washington Department of Ecology.

2. Documentation verifying necessary state and federal agency approvals must be submitted to the City prior to issuance of a building permit or land surface modification permit, including shoreline exemption. All activities within shorelines jurisdiction must comply with all other applicable laws and regulations.

3. If structures are proposed to extend waterward of the inner harbor line, the applicant must obtain an aquatic use authorization from the Washington State Department of Natural Resources and submit proof of authorization with submittal of a building permit or land surface modification permit.

(Ord. 4251 § 3, 2010)

### **83.380 Shoreline Setback Reduction**

1. Improvements Permitted Within the Shoreline Setback – See standards contained in KZC 83.190(2).

2. Shoreline Setback Reductions

a. In the Residential – L shoreline environment, the shoreline setback may be reduced by two (2) feet if subject to the historic preservation provisions of KMC 22.28.048, but in no case closer than 25 feet with the exception in the Residential – L shoreline environments (A), (F) and (J) where the minimum shoreline setback is 15 feet.

b. In all shoreline environments - The required shoreline setback may be reduced to a minimum of 25 feet, except 15 feet in Residential -L shoreline environments (A), (F) and (J), when setback reduction impacts are mitigated using a combination of the mitigation options provided in the chart below to achieve an equal or greater protection of lake ecological functions, ~~except in the Residential – L environments (A), (F) and (J)~~



~~where the required shoreline setback may be reduced to a minimum of 15 feet.~~ The following standards shall apply to any reduced setback:

- 1) The minimum setback that may be approved through this reduction provision is 25 feet in width, except 15 feet in width in the Residential – L shoreline environments (A), (F) and (J). Any further setback reduction below 25 feet or 15 feet, respectively, in width shall require approval of a shoreline variance application.
  - 2) The City shall accept previous actions that meet the provisions established in the setback reduction option chart in subsection (2)(~~ef~~) of this section as satisfying the requirements of this section; provided, that all other provisions are completed, including but not limited to the agreement noted in subsection (2)(b)(4) of this section. The reduction allowance for previously completed reduction actions may only be applied once on the subject property.
  - 3) Prior to issuance of a certificate of occupancy or final inspection, the applicant shall provide a final as-built plan of any completed improvements authorized or required under this subsection.
  - 4) Applicants who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions, including maintenance of the conditions throughout the life of the development, unless otherwise approved by the City, in a form acceptable to the City Attorney, and recorded with the King County Recorder's Office. The applicant shall provide land survey information for this purpose in a format approved by the Planning Official. An electronic copy of the approved as-built landscape plan shall be filed with the building permit plans in the City's electronic permitting system and does not need to be recorded.
  - 5) The shoreline setback reduction mechanisms shall not apply within the Natural shoreline environment.
  - 6) See KZC 83.300(8)(c) for required monitoring and maintenance program for replacement of hard to soft shoreline stabilization and KZC 83.400(5) for maintenance agreement of native vegetative plantings.
- c. For removal of an existing hard shoreline stabilization measure, an evaluation by a qualified professional approved by the Planning Official based on KZC 83.300(7) and (8) and Chapter 10 KZC must be provided to the City with the development permit to document that a reduced setback will not result in the need of a hard shoreline stabilization measure in the future to protect the primary structure as regulated in KZC 83.300.
- d. The reduction allowance shall be applied to the required shoreline setback. For instance, if a reduction is proposed in the Residential – L environment, where the shoreline setback requirement is 30 percent of the average parcel depth, the shoreline setback could be reduced to 15 percent of the average parcel depth, but in no case less than 25 feet, if reduction Option 1 in the chart below is used.

e. See KZC 141.70.4 addressing request from relief for measuring the required shoreline setback and lot coverage if the OHWM is changed due to removal of hard shoreline stabilization

f.e. The chart below describes the setback reduction options:

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25 ft. setback)	Residential – L (A), (F) and (J) environments (min. 15 ft. setback)
<b>Water Related Conditions or Actions</b>			
1	Presence of nonstructural or soft structural shoreline stabilization measures located at, below, or within five (5) feet landward of the lake's OHWM along at least 75 percent of the linear lake frontage of the subject	Reduce required setback by 15 percentage points, or in cases where the required setback is 60 feet or greater, reduce setback by 30 feet	Reduce required setback by 15 feet

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25 ft. setback)	Residential – L (A), (F) and (J) environments (min. 15 ft. setback)
	property. This can include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat consistent with the soft structural shoreline stabilization provisions in KZC 83.300. This option cannot be used in conjunction with Options 2, <del>3</del> , <del>5</del> or <del>6</del> below.		
<del>2</del>	<u>Same as above in Option 1 except along at least 50 percent of the linear lake frontage of the subject property. This option cannot be used in conjunction with Option 1 above or Options 3, 5 or 6 below.</u>	<u>Reduce required setback by 10 percentage points, or in cases where the required setback is 60 feet or greater, reduce setback by 20 feet</u>	<u>Reduce required setback by 10 feet.</u>
<del>3</del>	Presence of nonstructural or soft structural shoreline stabilization measures located at, below, or within five (5) feet landward of the lake's OHWM along at least 15 linear feet of the lake frontage of the subject property. This may include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat consistent with the design provisions for soft structural shoreline stabilization in KZC 83.300. This option cannot be used in conjunction with Option 1 <u>or 2</u> above or Options <del>5</del> or <del>6</del> below.	Reduce required setback by five (5) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by 10 feet	Reduce required setback by five (5) feet
<del>4</del>	Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish for a minimum of 25 feet in length. Opened watercourses must be provided with a native planted buffer at least five (5) feet wide on both sides of the stream, and must not encumber adjacent properties with a 5-foot-wide buffer without express written permission of the adjacent property owner. A qualified professional must design opened watercourses. The opened watercourse shall be exempt from the buffer provisions of KZC 83.490. The opened watercourse is exempt from the buffer requirements and standards of KZC 83.510.	Reduce required setback by five (5) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by five (5) feet
<del>5</del>	Existing hard structural shoreline stabilization measures are reconstructed to set back from the OHWM between two (2) feet and four (4) feet based on feasibility and existing conditions and/are sloped at a	Reduce required setback by five (5) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by five (5) feet

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25 ft. setback)	Residential – L (A), (F) and (J) environments (min. 15 ft. setback)
	maximum three (3) vertical (v): one (1) horizontal (h) angle to provide dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.		
65	Shoreline enhancement measures are installed waterward of an existing hard structural shoreline stabilization measure to create or enhance nearshore shallow-water habitat. They may include the use of gravels, cobbles, boulders, and logs, as well as vegetation. The material shall be of a size and placed to remain stable and accommodate alteration from wind- and boat-driven waves and shall be graded to a maximum slope of one (1) vertical (v): four (4) horizontal (h). The effect of the placed material cannot result in the enlargement of the existing hard structural shoreline stabilization measure.	Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by two (2) feet
<b>Upland Related Conditions or Actions</b>			
76	<del>Installation of biofiltration/infiltration mechanisms in lieu of piped discharge to the lake, such as mechanisms that infiltrate or disperse surface water on the surface of the subject property. These mechanisms shall be sized to store a minimum of 70 percent of the annual volume of runoff water from the subject property, for sites with poor soils, or 99 percent of the annual volume of runoff water from the subject property, for sites with well-draining soils. This mechanism shall apply to sites where the total new or replaced impervious surface is less than or equal to 5,000 square feet. The mechanisms shall be designed to meet the requirements in the City's current surface water design manual.</del>	<del>Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet</del>	<del>Reduce required setback by two (2) feet</del>
7	Increasing the width of the required landscape strip within the reduced shoreline setback a minimum of five (5) additional feet in width. <u>The additional landscape strip shall contain 1.5 trees per 100 linear feet of shoreline, shrubs, and groundcover meeting the standards of 83.400.3.2).</u>	Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by two (2) feet
8	Installation of pervious material for all pollution generating surfaces such as driveways, parking or private roads that allow water to pass through at rates similar to pre-developed conditions. Excluded from this provision are the vehicular easement roads, such as 5th Avenue West or Lake Avenue West in the Residential – L shoreline environment.	Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by two (2) feet

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25 ft. setback)	Residential – L (A), (F) and (J) environments (min. 15 ft. setback)
9	Limiting the lawn area within the shoreline setback to no more than 50 percent of the reduced setback area.	Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by two (2) feet
10	Preserving or restoring <u>within shoreline jurisdiction</u> at least 20 percent of the total lot area outside of the reduced setback and any critical areas and their associated buffers as native vegetation.	Reduce required setback by two (2) percentage points, or in cases where the required setback is 60 feet or greater reduce setback by four (4) feet	Reduce required setback by two (2) feet

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### 83.390 Site and Building Design Standards

1. Water-enjoyment and non-water-oriented commercial and recreational uses shall contain the following design features to provide for the ability to enjoy the physical and aesthetic qualities of the shoreline:
  - a. Buildings are designed with windows that orient toward the shoreline.
  - b. Buildings are designed to incorporate outdoor areas such as decks, patios, or viewing platforms that orient toward the shoreline.
  - c. Buildings are designed with entrances along the waterfront facade and with connections between the building and required public pedestrian walkways.
  - d. Service areas are located away from the shoreline.
  - e. Site planning includes public use areas along waterfront public pedestrian walkways, if required under the provisions established in KZC 83.420, that will encourage pedestrian activity, including but not limited to:
    - 1) Permanent seating areas;
    - 2) Vegetation, including trees to provide shade cover; and
    - 3) Trash receptacles.
2. Exemptions – The following are exempt from the requirements of subsection (1) of this section:
  - a. Non-water-oriented commercial and recreational uses that are located on the east side of Lake Washington Boulevard NE/Lake Street or on the east side of 98th Avenue NE.
  - b. Non-water-oriented commercial and recreational uses where there is an intervening development between the shoreline and the subject property.
3. Buildings shall not incorporate materials that are reflective or mirrored.

(Ord. 4251 § 3, 2010)

### 83.400 Tree Management and Vegetation in Shoreline Setback

1. Tree Retention – The following provisions shall apply to significant trees located within the shoreline jurisdiction, in addition to the provisions contained in Chapter 95 KZC. Provisions contained in Chapter 95 KZC that are not addressed in this section continue to apply.

To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained or, if removed, the loss of shoreline ecological functions shall be mitigated for, subject to the following standards:

a. No Development Activity – For tree removal in the shoreline setback when no development activity is proposed or in progress, the following tree replacement standards and requirements shall apply:

1) Healthy, diseased or nuisance trees that are removed or fallen trees in the shoreline setback shall be replaced as follows:

Removed Tree Type	Replacement Requirement
One (1) conifer tree less than 24 inches in diameter as measured at breast height	For removal of conifer tree up to 12 inches in diameter, replace with one (1) native conifer tree at least six (6) feet in height measured from existing grade.  For removal of conifer tree greater than 12 inches in diameter but less than 24 inches in diameter, same replacement requirements as for conifer tree 12 inches in diameter or less, but also a riparian vegetation area at least 80 square feet at the time of planting. Riparian area shall contain at least 60 percent shrubs and be a minimum of three (3) feet wide in all dimensions at the time of planting.
One (1) deciduous tree less than 24 inches in diameter as measured at breast height	For removal of deciduous tree up to 12 inches in diameter replace with one (1) deciduous tree at least two (2) inches in caliper measured six (6) inches above existing grade or one (1) native conifer tree at least six (6) feet in height measured from existing grade.  For removal of deciduous tree greater than 12 inches in diameter but less than 24 inches in diameter, same replacement requirements as for deciduous tree 12 inches in diameter or less, but also a riparian vegetation area of at least 80 square feet at the time of planting. Riparian area shall contain at least 60 percent shrubs and be a minimum of three (3) feet wide in all dimensions at the time of planting.
One (1) conifer or deciduous tree 24 inches in diameter or greater as measured at breast height	Only trees meeting the criteria found in Chapter 95 KZC for a nuisance or hazard tree may be removed. A report, prepared by a qualified professional certified arborist, must be submitted showing how the tree meets the criteria. The City arborist shall make the final determination if the tree meets the criteria and may be removed.  If the City arborist approved removal of the tree, tree replacement shall be:  For removal of one (1) conifer tree, replace with two (2) native conifer trees at least six (6) feet in height at the time of planting.  For removal of one (1) deciduous tree, replace with two (2) trees of either type. Native conifer trees shall be at least six (6) feet in height and deciduous trees shall be at least two (2) inches in caliper measured six (6) inches above existing grade at the time of planting.
A significant tree that has fallen as a result of natural causes, such as a fire, flood, earthquake or storm	If the subject property complies with the minimum tree density requirement established in Chapter 95 KZC, no replacement is required. Otherwise, replace with one (1) tree. Native conifer trees shall be at least six (6) feet in height and deciduous trees shall be at least two (2) inches in caliper measured six (6) inches above existing grade at the time of planting.

2) A tree removal request shall be submitted in writing to the City prior to any tree removal within the shoreline setback. The request shall include the location, number, type and size of tree(s) being removed and the proposed replacement tree(s) and riparian vegetation planting plan meeting the standards required

in subsection (1)(a) of this section. The City shall inspect the tree replacement once installation is complete.

- 3) An alternative replacement option shall be approved if an applicant can demonstrate that:
  - a) It is not feasible to plant all of the required mitigation trees in the shoreline setback of the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted; or
  - b) The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth that cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

The alternate replacement option must be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of at least 60 percent shrubs and some groundcovers selected from the Kirkland Native Plant List that shall equal at a minimum 80 square feet for each tree to be replanted. The applicant shall submit a planting plan to be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official or Urban Forester shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

- 4) In circumstances where the proposed tree removal includes a tree that was required to be planted as a replacement tree under the provisions of this subsection or as part of the required vegetation in the shoreline setback established in subsection (3) of this section, the required tree replacement shall be addressed under the provision below that requires only a 1:1 replacement.
  - 5) For required replacement trees, a planting plan showing the location, size and species of the new trees is required to be submitted and approved by the Planning Official. All replacement trees in the shoreline setback must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- b. Development Activity – For tree removal in the shoreline setback when development activity is proposed or in progress.
- 1) Submittal Requirements in the Shoreline Setback
    - a) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of existing structures, driveways, access ways and easements and the proposed improvements.
    - b) An arborist report stating the size (DBH), species, and assessment of health of all significant trees located within the shoreline setback. This requirement may be waived by the Planning Official if it is determined that proposed development activity will not potentially impact significant trees within the shoreline setback.
  - 2) Tree Retention Standards in the Shoreline Setback – Within the shoreline setback, existing significant trees shall be retained, provided that the trees are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained consistent with the proposed development activity. The Planning Official is authorized to require site plan alterations to retain significant trees in the shoreline setback. Such alterations include minor adjustments to the location of

building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The applicant shall be encouraged to retain viable trees in other areas on site.

3) Replanting Requirements in the Shoreline Setback

a) If the Planning Official approves removal of a significant tree in the shoreline setback area, then the tree replacement requirements of subsection (1)(a) of this section shall be met. See alternative mitigation option in subsection (1)(b)(3)(c) of this section that may be proposed.

b) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline setback must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.

c) An alternative mitigation option may be approved if an applicant can demonstrate that:

1) It is not feasible to plant all of the required mitigation trees on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted; or

2) The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth that cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

The alternate mitigation must be equal or superior to the provisions of this subsection in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of at least 60 percent shrubs, perennials and groundcovers selected from the Kirkland Native Plant List that shall equal at minimum 80 square feet for each tree to be replanted. The applicants shall submit a planting plan to be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official or Urban Forester shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

2. Tree Pruning – Nondestructive thinning of lateral branches to enhance views or trimming, shaping, thinning or pruning of a tree necessary to its health and growth is allowed, consistent with the following standards:

- a. In no circumstance shall removal of more than one-fourth (1/4) of the original crown be permitted;
- b. Pruning shall not include topping, stripping of branches or creation of an imbalanced canopy;
- c. Pruning shall retain branches that overhang the water to the maximum extent feasible.

3. Required Vegetation in Shoreline Setback – Riparian vegetation contributes to shoreline ecological functions in a number of different ways, including maintaining temperature, removing excessive nutrients and toxic compounds, attenuating wave energy, removing and stabilizing sediment and providing woody debris and other organic matter. In order to minimize potential impacts to shoreline ecological functions from development activities, the following shoreline vegetation standards are required:

- a. For properties that do not comply with the shoreline vegetation standards contained in this subsection, refer to KZC 83.550 to determine when compliance is required.



b. Minimum Vegetation Standard Compliance

1) Location

a) Water-Dependent Uses or Activities – The applicant shall plant native vegetation, as necessary, in at least 75 percent of the property's shoreline frontage for the nearshore riparian area located along or near the water's edge, except for the following areas, where the vegetation standards shall not apply: those portions of water-dependent development that require improvements adjacent to the water's edge, such as fuel stations for retail establishments providing gas sales, haul-out areas for retail establishments providing boat and motor repair and service, boat ramps for boat launches, swimming beaches or other similar activities shall plant native vegetation on portions of the nearshore riparian area located along the water's edge that are not otherwise being used for the water-dependent activity.

b) All Other Uses – The applicant shall plant native vegetation, as necessary, in at least 75 percent of the nearshore riparian area located along or near the water's edge.

c) In the instance where there is an intervening property between the shoreline and an upland property and the portion of the intervening property abutting the upland property has an average parcel depth of less than 25 feet, shoreline vegetation shall be provided within the shoreline setback portion of the upland property pursuant to this section, unless:

- 1) The required shoreline vegetation already exists on the intervening lot;
- 2) The intervening property owner agrees to installing the shoreline vegetation on their property; or
- 3) A proposal for alternative compliance is approved under the provisions established in subsection (3)(f) of this section.

2) Planting Requirements

a) For uses other than those listed in subsection (3)(b)(2)(b) of this section for detached, attached and stacking dwelling units, the vegetated portion of the nearshore riparian area shall average 10 feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 10-foot-wide area.

b) For detached, attached or stacked dwelling units within the Residential – M/H shoreline environment, the vegetated portion of the nearshore riparian area shall average 15 feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 15-foot wide area.

c) The public access walkway required under KZC 83.420 may extend into the required landscape strip as necessary to meet the public pedestrian access requirements, provided that the overall width of the landscape strip is maintained.

d) Installation of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline must be included in the plan, with portions of a tree rounded up to the next required tree. At least 60 percent of the landscape bed shall consist of shrubs to be attained within two (2) years of installation. In locations where there are existing bulkheads, planting shall include species which promote growth overhanging the water.

e) Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.

c. Use of Existing Vegetation – The City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this subsection, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this subsection to supplement the native existing vegetation in order to provide a buffer at least as effective as the required buffer.

d. Landscape Plan Required – The applicant shall submit a landscape plan that depicts the quantity, location, species, and size of plant materials proposed to comply with the requirements of this subsection, and shall address the plant installation and maintenance requirements set forth in Chapter 95 KZC. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

e. Vegetation Placement – When required either by this subsection or as a mitigation measure, such as for a new pier or dock or structural shoreline stabilization measure, vegetation selection and placement shall comply with the following standards:

- 1) Vegetation shall be selected and positioned on the property so as not to obscure the public view within designated view corridors from the public right-of-way to the lake and to the shoreline on the opposite side of the lake at the time of planting or upon future growth.
- 2) Vegetation may be selected and positioned to maintain private views to the water by clustering vegetation in a selected area, provided that the minimum landscape standard is met, unless alternative compliance is approved.

f. Alternative Compliance – Vegetation required by this subsection shall be installed unless the applicant demonstrates one (1) of the following:

- 1) The vegetation will not provide shoreline ecological function due to existing conditions, such as the presence of extensive shoreline stabilization measures that extend landward from the OHWM; or
- 2) It is not feasible to plant all of the required vegetation on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, or minimum spacing requirements for the vegetation to be planted; or
- 3) The vegetation will substantially interfere with the use and enjoyment of the portion of the property located between the primary structure and OHWM, such as the existing structure is located in very close proximity to the OHWM; the area in between the primary structure and the OHWM is encumbered by a sanitary sewer, public pedestrian access easement, public access walkway or other constraining factors; or
- 4) The required vegetation placement will obstruct existing views to the lake, at the time of planting or upon future growth, which cannot otherwise be mitigated through placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the vegetation placement will obstruct existing views to the lake.

The alternate measures must be equal or superior to the provisions of this subsection in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes.

Requests to use alternative measures shall be reviewed by the Planning Official who may approve, approve with conditions, or deny the request. Cost of producing and implementing the alternative plan, and the fee to review the plan by City staff or the City's consultant shall be borne by the applicant.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

#### 4. Other Standards

- a. For other general requirements, see Chapter 95 KZC, Tree Management and Landscaping Requirements.
- b. The applicant is encouraged to make significant trees removed under these provisions available for City restoration projects, as needed.

5. Responsibility for Regular Maintenance

- a. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of vegetation required under this section. Plants that die must be replaced in kind or with similar plants contained on the Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- b. All required vegetation must be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy or final inspection, the proponent shall provide a final as-built landscape plan and a recorded agreement, in a form approved by the City Attorney, to maintain and replace all vegetation that is required by the City. The agreement shall be recorded with the King County Recorder's Office.

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

**83.410 View Corridors**

1. General – Development within the commercial and multifamily shoreline areas located between principal arterials and Lake Washington shall include public view corridors that provide the public with an unobstructed view of the water. The intent of the corridor is to provide an unobstructed view from the adjacent public right-of-way to the lake and to the shoreline on the opposite side of the lake.

2. Standards

- a. For properties lying waterward of Lake Washington Boulevard, Lake Street South and NE Juanita Drive in the Residential M-H shoreline environment designation, a minimum view corridor of 30 percent of the average parcel width must be maintained. A view of the shoreline edge of the subject property shall be provided if existing topography, vegetation, and other factors allow for this view to be retained.
- b. The view corridors approved for properties located in the Urban Mixed shoreline environment established under a zoning master plan or zoning permit approved under the provisions of Chapter 152 KZC shall continue to comply with those requirements. Modifications to the proposed view corridor shall be considered under the standards established in this chapter and the zoning master plan.

3. Exceptions – The requirement for a view corridor does not apply to the following:

- a. The following water-dependent uses:
  - 1) Piers and docks associated with a marina or moorage facility for a commercial use;
  - 2) Piers, docks, moorage buoys, boat lifts and canopies associated with detached, attached and stacked unit uses;
  - 3) Tour boat facility, ferry terminal or water taxi, including permanent structures up to 200 square feet in size housing commercial uses ancillary to the facility;
  - 4) Public access pier or boardwalk;
  - 5) Boat launch.
- b. Public parks.
- c. Properties located in the Urban Mixed shoreline environment within the Central Business District zone and within the Juanita Business District [4 and 5 zones](#).

4. View Corridor Location – The location of the view corridor shall be designed to meet the following location standards and must be approved by the Planning Official.

- a. If the subject property does not directly abut the shoreline, the view corridor shall be designed to coincide with the view corridor of the adjacent properties that abut the lake.
- b. The view corridor must be adjacent to one of the two side property lines that intersect the OHWM of the subject property, whichever will result in the widest view corridor, considering the following, in order of priority:
  - 1) Locations of existing view corridors.
  - 2) Existing development or potential development on adjacent properties, given the topography, access and likely location of future improvements.
  - 3) The availability of actual views of the water and the potential of the lot for providing those views from the abutting street.
  - 4) Location of existing sight-obscuring structures, parking areas or vegetation that is likely to remain in place in the foreseeable future.
- c. The view corridor must be in one (1) continuous piece.
- d. For land divisions, the view corridor shall be established as part of the land division and shall be located to create the largest view corridor on the subject property.

5. Permitted Encroachments

- a. The following shall be permitted within a view corridor:
  - 1) Areas provided for public access, such as public pedestrian walkways, public use areas, or viewing platforms.
  - 2) Parking lots and subsurface parking structures; provided, that the parking does not obstruct the view from the public right-of-way to the waters of the lake and the shoreline on the opposite side of the lake.
  - 3) Structures if the slope of the subject property permits full, unobstructed views of the lake and the shoreline on the opposite side of the lake over the structures from the public right-of-way.
  - 4) Shoreline restoration plantings and existing specimen trees and native shoreline vegetation.
  - 5) Vegetation, including required vegetation screening around parking and driving areas and land use buffers, provided it is designed and of a size that will not obscure the view from the public right-of-way to the water and the shoreline on the opposite side of the lake at the time of planting or upon future growth. In the event of a conflict between required site screening and view preservation, view preservation shall take precedents over buffering requirements found in Chapter 95 KZC.
  - 6) Open fencing that is designed not to obscure the view from the public right-of-way to the lake and the shoreline on the opposite side of the lake.

6. Dedication – The applicant shall execute a covenant or similar legal agreement, in a form acceptable to the City Attorney, and record the agreement with the King County Recorder's Office, to protect the view corridor. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

**83.420 Public Access**

1. Treaty Rights - The Muckleshoot Indian Tribe has federally-protected treaty rights to fisheries resources within their usual and accustomed areas ("U&A"), including access to these resources. Kirkland's regulated shoreline areas are a subset of the Muckleshoot Tribe's larger "U&A" area. Activities and development regulated under this Shoreline Master Program have the potential to impact treaty-protected fisheries resources and tribal members' ability to access to these resources. Accordingly, the City will work with the Muckleshoot Tribe to ensure that permitted projects do not unduly impede or impair in-water or upland tribal fishing access.

2. General – Promoting a waterfront pedestrian corridor is an important goal within the City. Providing pedestrian access along Lake Washington enables the public to view and enjoy the scenic beauty, natural resources, and recreational activities that are found along the shoreline. This pedestrian corridor provides opportunities for physical recreation and leisure and serves as a movement corridor. Connections between the shoreline public pedestrian walkway and the public right-of-way serve to link the walkway with the larger city-wide pedestrian network.

The applicant shall comply with the following pedestrian access requirements with new development for all uses, including new, expanded and replacement multifamily and commercial piers, accessory dwelling units in multifamily zones and land divisions under KMC Title 22, pursuant to the standards of this section:

- a. Pedestrian Access Along the Water's Edge – Provide public pedestrian walkways along or near the water's edge.
- b. Pedestrian Access from Water's Edge to Right-of-Way – Provide public pedestrian walkways designed to connect the shoreline public pedestrian walkway to the abutting right-of-way.

**23. Exceptions**

a. The requirement for the dedication and improvement of public access does not apply to:

1) Development located within the Residential – L shoreline environment, except the following uses and developments that are required to comply with the public access provisions:

a) Public entities, such as government facilities and public parks; or

b) Divisions of land containing five (5) or more new lots located within the shoreline jurisdiction.

2) Development located within the Natural shoreline environment.

3) Detached dwelling unit on one (1) lot and normal appurtenances associated with this use that is not part of a land division.

**342.** Public Pedestrian Walkway Location – The applicant shall locate public pedestrian walkways pursuant to the following standards:

- a. The walkways shall be designed and sited to minimize the amount of native vegetation removal, impact to existing significant trees, soil disturbance, and disruption to existing habitat corridor structures and functions.
- b. The walkways shall be located along or near the water's edge between the development and the shoreline at an average of 10 feet but no closer than five (5) feet landward of the OHWM so that the walkway may meander and not be a straight line. In cases where the walkway on the adjoining property has been installed closer to the shoreline than allowed under this provision, the walkway shall extend within five (5) feet of the OHWM in order to connect to the existing walkway.
- c. Locating the walkways adjacent to other public areas including street-ends, waterways, parks, and other public access and connecting walkways shall maximize the public nature of the access.
- d. The walkways shall be situated so as to minimize significant grade changes and the need for stairways.

- e. The walkways shall minimize intrusions of privacy for occupants and residents of the site by avoiding locations directly adjacent to residential windows and outdoor private open spaces, or by screening or other separation techniques.
- f. The walkways shall be located so as to avoid undue interference with the use of the site by water-dependent businesses.
- g. The Planning Official shall determine the appropriate location of the walkway on the subject property when planning for the connection of a future waterfront walkway on an adjoining property.
- h. In the instance where there is an intervening property between the shoreline and an upland property and the intervening property abutting the shoreline has an average parcel depth of less than 25 feet, the required public pedestrian walkway shall be provided within the required shoreline setback of the upland property pursuant to this section, unless:
  - 1) The required public pedestrian walkway already exists on the intervening lot that abuts the shoreline; or
  - 2) The intervening property owner agrees to installing the public pedestrian walkway improvement and submitting a public access easement to the City for recording with King County Recorder's Office at the time of the building permit for the upland property; or
  - 3) A modification to the public access requirement is granted to the upland property under the provisions established in subsection (6) of this section.

**453.** Development Standards Required for Pedestrian Improvements – The applicant shall install pedestrian walkways pursuant to the following standards:

- a. The walkways shall be at least six (6) feet wide, but no more than eight (8) feet wide, and contain a permeable paved walking surface, such as unit pavers, grid systems, porous concrete, or equivalent material approved by the Planning Official.
- b. The walkways shall be distinguishable from traffic lanes by pavement material, texture, or change in elevation.
- c. The walkways shall not be included with other impervious surfaces for lot coverage calculations.
- d. Permanent barriers that limit future extension of pedestrian access between the subject property and adjacent properties are not permitted.
- e. Regulated public access shall be indicated by signs installed at the entrance of the public pedestrian walkway on the abutting right-of-way and along the public pedestrian pathway. The signs shall be located for maximum public visibility. Design, materials and location of the signage shall meet City specifications.
- f. All public pedestrian walkways shall be provided through a minimum 6-foot-wide easement or similar legal agreement, in a form acceptable to the City Attorney, and recorded with the King County Recorder's Office. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.

**564.** Operation and Maintenance Requirements for Pedestrian Improvements – The following operation and maintenance requirements apply to all public pedestrian walkways required under this section:

- a. Hours of Operation and Limitations on Accessibility – Unless otherwise required by the City, all required pedestrian walkways shall be open to the public between ~~the hours of~~ 10:00 a.m. ~~to dusk and 10 minutes after sunset~~ from March 21st to September 21st and the remainder of the year between ~~the hours of~~ 10:00 a.m. ~~to and~~ 5:00 p.m.

- b. The applicant is permitted to secure the subject property outside of the hours of operation noted in subsection (4)(a) of this section by a security gate, subject to the following provisions:
  - 1) The gate shall remain in an open position during hours of permitted public access; and
  - 2) Signage shall be included noting the hours of permitted public access.
- c. The Planning Official is authorized to approve a temporary closure when hazardous conditions are present that would affect public safety.
- d. Performance and Maintenance
  - 1) No certificate of occupancy or final inspection shall be issued until all required public access improvements are completed, except under special circumstances approved by the Planning Official and after submittal of an approved performance security.
  - 2) The owner, its successor or assigns shall be responsible for the completion and maintenance of all required waterfront public access areas and signage on the subject property.

#### ~~5. Exceptions~~

- ~~a. The requirement for the dedication and improvement of public access does not apply to:~~
  - ~~1) Development located within the Residential—L shoreline environment, except the following uses and developments that are required to comply with the public access provisions:~~
    - ~~a) Public entities, such as government facilities and public parks; or~~
    - ~~b) Divisions of land containing five (5) or more new lots located within the shoreline jurisdiction.~~
  - ~~2) Development located within the Natural shoreline environment.~~
  - ~~3) Detached dwelling unit on one (1) lot and normal appurtenances associated with this use that is not part of a land division. For development involving land division, public pedestrian access is required, unless otherwise excepted under this subsection.~~

#### ~~6.~~ Modifications

- a. The Planning Official may require or grant a modification to the nature or extent of any required improvement for any of the following reasons:
  - 1) If the presence of critical areas, such as wetlands, streams, or geologically hazardous areas, preclude the construction of the improvements as required.
  - 2) To avoid interference with the operations of water-~~dependant~~ dependent uses, such as marinas.
  - 3) If the property contains unusual site constraints, such as size, configuration, topography, or location.
  - 4) If the access would create unavoidable health or safety hazards to the public.
- b. If a modification is granted, the Planning Official may require that an alternate method of providing public access, such as a public use area or viewing platform, be provided.
- c. Access from the right-of-way to the shoreline public access walkway may be waived by the Planning Official if all of the following criteria are met:
  - 1) If public access along the shoreline of the subject property can be reached from an adjacent property;



- 2) If the adjacent property providing access to the shoreline contains an existing public access walkway connecting with the public right-of-way and the maximum separation between public access entry points along the public right-of-way is 300 feet or less; and
- 3) If the subject property does not contain a public use area required as a condition of development by the Planning Official under the provisions of this chapter.

(Ord. 4491 § 11, 2015; Ord. 4251 § 3, 2010)

### **83.430 In-Water Construction**

Standards – The following standards shall apply to in-water work, including, but not limited to, installation of new structures, repair of existing structures, restoration projects, and aquatic vegetation removal:

1. In-water structures and activities shall be sited and designed to avoid the need for future shoreline stabilization activities and dredging, giving due consideration to watershed functions and processes, with special emphasis on protecting and restoring priority habitat and species.
2. In-water structures and activities are not subject to the shoreline setbacks established in KZC 83.180.
3. See KZC 83.370 for federal and state approval and timing restrictions.
4. Removal of existing structures shall be accomplished so the structure and associated material does not re-enter the lake.
5. Waste material and unauthorized fill, such as construction debris, silt or excess dirt resulting from in-water structure installation, concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, paper and any other similar material upland of or below the OHWM shall be removed.
6. Measurements shall be taken in advance and during construction to ensure that no petroleum products, hydraulic fluid, cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the lake during in-water activities. Appropriate spill clean-up materials must be on-site at all times, and any spills must be contained and cleaned immediately after discovery.
7. In-water work shall be conducted in a manner that causes little or no siltation to adjacent areas. A sediment control curtain shall be used in those instances where siltation is expected. The curtain shall be maintained in a functional manner that contains suspended sediments during project installation.
8. Any trenches, depressions, or holes created below the OHWM shall be backfilled prior to inundation by high water or wave action.
9. Fresh concrete or concrete by-products shall not be allowed to enter the lake at any time during in-water installation. All forms used for concrete shall be completely sealed to prevent the possibility of fresh concrete from entering the lake.
10. Alteration or disturbance of the bank and bank vegetation shall be limited to that necessary to perform the in-water work. All disturbed areas shall be protected from erosion using vegetation or other means.
11. If at any time, as a result of in-water work, water quality problems develop, immediate notification shall be made to the Washington State Department of Ecology.

(Ord. 4251 § 3, 2010)

### **83.440 Parking**

1. General
  - a. Only parking associated with a permitted or conditional shoreline use shall be allowed, except that within the Urban Mixed shoreline environment, surface or structured parking facilities may accommodate parking for surrounding uses and commercial parking uses.

- b. Parking as a primary use on a subject property is prohibited.
2. Number of Parking Spaces – Uses must provide sufficient off-street parking spaces. The required number of parking stalls established in Chapter 105 KZC, KZC 50.60 and with the applicable parking standards for each use shall be met.
3. Parking Location
- a. Intent – To reduce the negative impacts of parking and circulation facilities on public spaces within the shoreline, such as shoreline public pedestrian walkways, public use areas, and view corridors along public rights-of-way.
  - b. Standards – The applicant shall locate parking areas on the subject property according to the following requirements:
    - 1) Parking is prohibited in the shoreline setback established in KZC 83.180, except as follows:
      - a) Subsurface parking is allowed, provided that:
        - 1) The structure is designed to avoid the need for future shoreline stabilization as documented in a geotechnical report, prepared by a qualified geotechnical engineer or engineering geologist.
        - 2) The structure is designed to comply with shoreline vegetation standards established in KZC 83.400. As part of any proposal to install subsurface parking within the shoreline setback, the applicant shall submit site-specific documentation prepared by a qualified expert to establish that the design will adequately support the long-term viability of the required vegetation.
        - 3) The structure is designed to not impact public access and views to the lake from the public right-of-way.
        - 4) Public access over subsurface parking structures shall be designed to minimize significant changes in grade.
      - b) The parking is designed as a short-term loading area to support a water-dependent use.
    - 2) Parking is prohibited on structures located over water.
    - 3) Parking, loading, and service areas for a permitted use activity shall not extend closer to the shoreline than a permitted structure unless:
      - a) The parking is incorporated within a structure, subject to the following standards:
        - 1) The parking is subsurface; or
        - 2) The design of any above-grade structured parking incorporates vegetation and/or building surface treatment to provide an appearance comparable to the remainder of the building not used for parking.
      - b) The parking is accessory to a public park.
      - c) The parking is designed as a short-term loading area to support a water-dependent use.
4. Design of Parking Areas
- a. Pedestrian Connections

- 1) Parking areas shall be designed to contain pedestrian connections to public pedestrian walkways and building entrances. Pedestrian connections shall either be a raised sidewalk or composed of a different material than the parking lot material.
  - 2) Pedestrian connections must be at least five (5) feet wide, excluding vehicular overhang.
- b. Design of Surface Parking Lots – In addition to the perimeter buffering and internal parking lot landscaping provisions established in Chapter 95 KZC, the applicant shall buffer all parking areas and driveways visible from required public pedestrian walkways or public use areas with appropriate landscaping screening that is consistent with the landscaping and buffering standards for driving and parking areas contained in Chapter 95 KZC.
- c. Design of Structured Parking Facilities – Each facade of a garage or a building containing above-grade structured parking visible from a required view corridor, or facing a public pedestrian walkway, public use area, or public park must incorporate vegetation and/or building surface treatment to mitigate the visual impacts of the structured parking.

(Ord. 4251 § 3, 2010)

**83.450 Screening of Storage and Service Areas, Mechanical Equipment and Garbage Receptacles**

1. Outdoor Use, Activity and Storage – Outdoor use, activity and storage areas must comply with the following:
  - a. Comply with the shoreline setback established for the use with which they are associated.
  - b. Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public park.
  - c. Be screened from view from the street, adjacent properties, Lake Washington, required public pedestrian walkways, and other public use areas by a solid screening enclosure or within a building.
  - d. Outdoor dining areas and temporary storage for boats undergoing service or repair that are accessory to a marina are exempt from the placement and screening requirements of subsections (1)(b) and (c) of this section.
2. Mechanical and Similar Equipment or Appurtenances
  - a. At-grade mechanical and similar equipment or appurtenances are not permitted within the shoreline setback.
  - b. Rooftop appurtenances and at or below grade appurtenances shall be screened with vegetation or a solid screening enclosure or located in such a manner as to not be visible from Lake Washington, required public pedestrian walkways, or public use areas.
3. Garbage and Recycling Receptacles – Garbage and recycling receptacles must comply with the following:
  - a. Comply with the shoreline setback established for the use with which they are associated.
  - b. Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public parks.
  - c. Be screened from view from Lake Washington, required public pedestrian walkways, and other public use areas by a solid screening enclosure, such as a wooden fence without gaps, or within a building.
  - d. Exemptions – Garbage receptacles for detached dwelling units, duplexes, moorage facilities, parks, and construction sites, but not including dumpsters or other containers larger than a typical individual trash receptacle, are exempt from the placement and screening requirements of this subsection.

(Ord. 4251 § 3, 2010)

### **83.460 Signage**

Standards – The following standards shall apply to signs within the shoreline jurisdiction:

1. Signage shall not interfere or block designated view corridors within the shoreline jurisdiction.
2. Signs shall comply with the shoreline setback standards contained in KZC 83.180.
3. Signage shall not be permitted to be constructed over water, except as follows:
  - a. For retail establishments providing gas and oil sales for boats, where the facility is accessible from the water:
    - 1) One (1) sign, not exceeding 20 square feet per sign face, is permitted. The sign area for the water-oriented sign shall be counted towards the maximum sign area permitted in Chapter 100 KZC.
    - 2) Internally illuminated signs are not permitted. Low-wattage external light sources that are not directed towards neighboring properties or Lake Washington are permitted, subject to approval by the Planning Official.
    - 3) Signs shall be affixed to a pier or wall-mounted. The maximum permitted height of a freestanding sign is five (5) feet above the surface of the pier. A wall-mounted sign shall not project above the roofline of the building to which it is attached.
  - b. Boat traffic signs, directional signs, and signs displaying a public service message.
  - c. Interpretative signs in coordination with public access and recreation amenities.
  - d. Building addresses mounted flush to the end of a pier, with letters and numbers at least four (4) inches high.

(Ord. 4251 § 3, 2010)

### **83.470 Lighting**

1. General – Exterior lighting shall be controlled using limits on height, light levels of fixtures, light shields, time restrictions and other mechanisms in order to:
  - a. Prevent light pollution or other adverse effects that could infringe upon public enjoyment of the shoreline;
  - b. Protect residential uses from adverse impacts that can be associated with light trespass from higher-intensity uses; and
  - c. Prevent adverse effects on fish and wildlife species and their habitats.
2. Exceptions –
  - a. The following development activities are exempt from the submittal and lighting standards established in this section:
    - 1) Emergency lighting required for public safety;
    - 2) Lighting for public rights-of-way;
    - 3) Outdoor lighting for temporary or periodic events (e.g., community events at public parks);
    - 4) Seasonal decoration lighting; and
    - 5) Sign lighting governed by KZC 83.460.

b. The following development activities are exempt from the submittal standards established in subsection (3) of this section, but are still subject to the lighting standards contained in subsection (4) of this section:

- 1) Development of a detached dwelling unit or associated appurtenances;
- 2) Piers and docks;
- 3) Public access pier or boardwalk; and
- 4) Moorage buoy.

3. Submittal Requirements – All development proposing exterior lighting within the shorelines jurisdiction, except as otherwise indicated in subsection (2) of this section, shall submit a lighting plan and photometric site plan for approval by the Planning Official. The plan shall contain the following:

- a. A brief written narrative, with accompanying plan or sketch that demonstrates the objectives of the lighting.
- b. The location, fixture type, mounting height, and wattage of all outdoor lighting and building security lighting, including exterior lighting mounted on piers or illuminating piers.
- c. A detailed description of the fixtures, lamps, supports, reflectors, and other devices. The description shall include manufacturer's catalog specifications and drawings, including sections when requested.
- d. If building elevations are proposed for illumination, drawings shall be provided for all relevant building elevations showing the fixtures, the portions of the elevations to be illuminated, and the illuminate levels of the elevations.
- e. Photometric data, such as that furnished by manufacturers, showing the angle of light emissions.
- f. Computer generated photometric grid showing footcandle readings every 20 feet within the property or site, and 15 feet beyond the property lines, including Lake Washington, if applicable. Iso-footcandle contour line style plans are also acceptable.

4. Standards

a. Direction and Shielding

- 1) All exterior building-mounted and ground-mounted light fixtures shall be directed downward and have "fully shielded cut off" fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses, to direct the light towards the ground and away from the shoreline, and to prevent lighting from spilling on to the lake water. For detached dwelling unit or associated appurtenances, this requirement shall apply to any light fixtures that are directed towards or face Lake Washington.
- 2) Exterior lighting mounted on piers, docks or other water-dependent uses located at the shoreline edge shall be at ground or dock level, be directed away from adjacent properties and the water, and designed and located to prevent lighting from spilling onto the lake water.
- 3) For properties located within the Natural shoreline environment, exterior lighting installations shall incorporate motion-sensitive lighting and lighting shall be limited to those areas where it is needed for safety, security, and operational purposes.

b. Lighting Levels

- 1) Exterior lighting installations shall be designed to avoid harsh contrasts in lighting levels.

- 2) For properties located adjacent to a Natural shoreline environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.1 footcandles (as measured at three (3) feet above grade) at the site or environment boundary.
  - 3) For properties in the Urban Mixed shoreline environment located adjacent to residential uses in another shoreline environment or for commercial uses located adjacent to residential uses in the Urban Residential shoreline environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 horizontal and vertical footcandles (as measured at three (3) feet above grade) at the site boundary, and drop to 0.1 footcandles onto the abutting property as measured within 15 feet of the property line.
  - 4) Exterior lighting shall not exceed a strength of one (1) footcandle at the water surface of Lake Washington, as measured waterward of the OHWM.
- c. Height of Light Fixtures – The maximum mounting height of ground-mounted light fixtures shall be 12 feet. Height of light fixtures shall be measured from the finished floor or the finished grade of the parking surface, to the bottom of the light bulb fixture.
- d. Other
- 1) Illumination of a building facade to enhance architectural features is not permitted.
  - 2) Where feasible, exterior lighting installations shall include timers, dimmers, sensors, or photocell controllers that turn the lights off during daylight hours or hours when lighting is not needed, to reduce overall energy consumption and eliminate unneeded lighting.

(Ord. 4251 § 3, 2010)

### **83.480 Water Quality, Stormwater, and Nonpoint Pollution**

1. General – Shoreline development and use shall incorporate all known, available, and reasonable methods of prevention, control, and treatment to protect and maintain surface and/or ground water quantity and quality in accordance with Chapter 15.52 KMC and other applicable laws.

2. Submittal Requirements – All proposals for development activity or land surface modification located within the shoreline jurisdiction shall submit for approval a storm water plan with their application and/or request, unless exempted by the Public Works Official. The storm water plan shall include the following:

- a. Provisions for temporary erosion control measures; and
- b. Provisions for storm water detention, water quality treatment and storm water conveyance facilities, in accordance with the City's adopted surface water design manual in effect at the time of permit application.

3. Standards

- a. Shoreline development shall comply with the standards established in the City's adopted surface water design manual in effect at the time of permit application.
- b. Shoreline uses and activities shall apply best management practices (BMPs) to minimize any increase in surface runoff and to control, treat and release surface water runoff so that receiving properties, wetlands or streams, and Lake Washington are not adversely affected, consistent with the City's adopted surface water design manual. All types of BMPs require regular maintenance to continue to function as intended.

Low impact development techniques shall be considered and implemented to the greatest extent practicable, consistent with the City's adopted surface water design manual.

- c. New outfalls or discharge pipes to Lake Washington shall be avoided, where feasible. If a new outfall or discharge pipe is demonstrated to be necessary, it shall be designed so that the outfall and energy dissipation pad is installed above the OHWM.

d. In addition to providing storm water quality treatment facilities as required in this section and the City's adopted Surface-water Master Plan design manual, the developer and/or property owner shall provide source control BMPs designed to treat or prevent storm water pollution arising from specific activities expected to occur on the site. Examples of such specific activities include, but are not limited to, car washing at detached, attached stacked (multifamily) residential sites and oil storage at marinas providing service and repair.

e. No release of oils, hydraulic fluids, fuels, paints, solvents or other hazardous materials shall be permitted into Lake Washington. If water quality problems occur, including equipment leaks or spills, work operations shall cease immediately and the Public Works Department and other agencies with jurisdiction shall be contacted immediately to coordinate spill containment and cleanup plans.

It shall be the responsibility of property owners to fund and implement the approved spill containment and cleanup plans and to complete the work by the deadline established in the plans.

f. All materials that come into contact with water shall be constructed of untreated wood, cured concrete, steel or other approved nontoxic materials. Materials used for overwater decking or other structural components that may come into contact with water shall comply with regulations of responsible agencies (i.e., Washington State Department of Fish and Wildlife or Department of Ecology) to avoid discharge of pollutants.

g. The application of pesticides, herbicides, or fertilizers shall comply with the following standards:

1) The application of pesticides, herbicides or fertilizers within shoreline setbacks shall utilize best management practices (BMPs) outlined in the BMPs for Landscaping and Lawn/Vegetation Management Section of the 2005 Stormwater Management in the City's adopted surface water design Manual for Western Washington, to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values.

2) These BMPs practices include not applying if it is raining or about to rain, ensuring sprinkler systems do not spray beyond vegetated areas resulting in the excess water discharging into the lake, stream or storm drain system, and clean up immediately after spills.

32) Pesticides, herbicides, or fertilizers shall be applied in a manner that minimizes their transmittal to adjacent water bodies. The direct runoff of chemical-laden waters into adjacent water bodies is prohibited. Spray application of pesticides shall not occur within 100 feet of open waters including the lake, wetlands, ponds, and streams, sloughs and any drainage ditch or channel that leads to open water except when approved by the City.

43) The use of pesticides, herbicides or fertilizers within the shoreline's jurisdiction, including applications of herbicides to control noxious aquatic vegetation, shall comply with regulations of responsible federal and state agencies.

45) A copy of the applicant's National Pollutant Discharge Elimination System (NPDES) permit, issued from Washington State Department of Ecology, authorizing aquatic pesticide (including herbicides) to Lake Washington must be submitted to the Planning and Building Department prior to the application.

#### **83.490 Critical Areas: Wetlands, Streams, Fish and Wildlife Habitat Conservation Areas, and Frequently Flooded Areas –General Standards**

1. Applicable Critical Areas Regulations – The following critical areas and their buffers located within shoreline jurisdiction are subject to ~~shall be regulated in accordance with~~ the provisions of KZC Chapter 90-Critical Areas, adopted [Date to be added] (Ordinance # ), which is herein incorporated by reference into this SMP, with the exclusions, clarifications and modifications contained in this section.

a. Wetlands

b. Streams



c. Fish and wildlife habitat conservation areas

d. Frequently flooded areas; and

e. Vegetative buffers required for the above.

2. Review Process – The critical areas regulations of KZC Chapter 90 incorporated by reference are provisions of the SMP to be regulated along with the other provisions of KZC Chapter 83 through the Shoreline Administration process of KZC Chapter 141. The City shall ~~consolidate and~~ integrate the review and processing of the critical areas aspects of the proposal with the shoreline permit or review required for the proposed activity. Any references in KZC Chapter 90 to process, decision making authority, or KZC Chapter 145, ~~standards or decision criteria are supplemental and~~ do not replace the SMP requirements contained within this chapter and Chapter 141. Any additional decision criteria and submittal requirements within KZC Chapter 90 shall be considered supplemental to the shoreline permit or review required for the proposed activity.

23. Conflicting Provisions -- Unless otherwise stated, no development shall be constructed, located, extended, modified, converted, or altered, or land divided without full compliance with the provision adopted by reference and the Shoreline Master Program. Within shoreline jurisdiction, the regulations of KZC Chapter 90 shall be liberally construed together with the Shoreline Master Program to give full effect to the objectives and purposes of the provisions of the Shoreline Master Program and the Shoreline Management Act. If there is a conflict or inconsistency between any of the adopted provisions below and the Shoreline Master Program, the most restrictive provisions shall prevail.

34. The following sections of KZC Chapter 90 shall not apply within the shoreline jurisdiction:

a. KZC 90.30- City Review Process

b. KZC 90.35- Exemptions

c. KZC 90.40 – Permitted Activities: subsection i. and j.

d. KZC 90.-45 Public Agency and Public Utility Exceptions

ef. KZC 90.90 – Minor Lakes - Totem Lake and Forbes Lake

fg. KZC 90.180 – Reasonable Use Exception

gh. KZC 90.185 - Nonconformances

hi. KZC 90.220 – Appeals

ij. KZC 90.225 –Lapse of Approval

ji. KZC 90.60.2 – Exception for wetland modification

jk. KZC 90.120.2 – Type F Stream Buffer Waiver.

5. Frequently flooded areas shall also be subject to the flood hazard reduction standards in 83.530.

1. —The provisions of this chapter do not extend beyond the shorelines jurisdiction limits specified in this chapter and the Act. The following critical areas are regulated under shorelines jurisdiction:

a. —Wetlands associated with Lake Washington (those wetlands that drain into the lake);

b. —Wetlands unassociated with Lake Washington and wetland buffers located within 200 feet of the OHWM;

~~e. — Streams and buffers within 200 feet of the OHWM; and~~

~~d. — Frequently flooded areas and geologically hazardous areas within 200 feet of the OHWM.~~

~~For regulations addressing critical areas and buffers that are outside of the shorelines jurisdiction, see Chapters 85 and 90 KZC.~~

## 2. ~~Avoiding Impacts to Critical Areas~~

~~a. — An applicant for a land surface modification or development permit within a critical area or its associated buffer shall utilize the following mitigation sequencing guidelines, that appear in order of preference, during design of the proposed project:~~

~~1) — Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. If impacts cannot be avoided through redesign, or because of site conditions or project requirements, the applicant shall then proceed with the following sequence of steps in subsection (2)(a)(2) through (7) of this section.~~

~~2) — Minimizing the impact or hazard by limiting the degree or magnitude of the action or impact with appropriate technology or by changing the timing of the action.~~

~~3) — Restoring the impacted critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer.~~

~~4) — Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through plantings, engineering or other methods.~~

~~5) — Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal, activity or alteration.~~

~~6) — Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers as required in KZC 83.500 and 83.510.~~

~~7) — Monitoring the impact, hazard or success of required mitigation and taking remedial action based upon findings over time.~~

~~In the required critical areas study, the applicant shall include a discussion of how the proposed project will utilize mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas and associated buffers. The applicant shall seek to avoid, minimize and mitigate overall impacts based on the functions and values of all relevant critical areas.~~

~~b. — In addition to the above steps, the specific development standards, permitted alteration requirements, and mitigation requirements of this chapter and elsewhere in this code apply.~~

~~e. — In determining the extent to which the proposal shall be further redesigned to avoid and minimize the impact, the City may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost of the proposal and identified modifications to the proposal. The City may also consider the extent to which the avoidance of one (1) type or location of a critical area could require or lead to impacts to other types or locations of nearby or adjacent critical areas. The City~~

~~— shall document the decision making process used under this subsection as a part of the critical areas review conducted pursuant to KZC 83.500 and 83.510.~~

## 3. ~~Trees in Critical Areas or Critical Area Buffers~~

a. ~~General~~—The intent of preserving vegetation in and near streams and wetlands and in geologically hazardous areas is to support the functions of healthy sensitive areas and sensitive area buffers and/or avoid disturbance of geologically hazardous areas.

b. ~~Submittal Requirements~~—When proposing to trim or remove any tree located within critical areas or critical area buffers, the property owner must submit a report to the City containing the following:

- 1) ~~A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of structures, driveways, access ways and easements.~~
- 2) ~~An arborist report explaining how the tree(s) fit the criteria for a nuisance or hazard tree. This requirement may be waived by the Planning Official if it is determined that the nuisance or hazard condition is obvious.~~
- 3) ~~A proposal detailing how the tree will be made into a snag or wildlife tree, including access and equipment, snag height, and placement of woody debris.~~
- 4) ~~For required replacement trees, a planting plan showing location, size and species of the new trees.~~

e. ~~Tree Removal Standards~~

1) ~~If a tree meets the criteria of a nuisance or hazard in a critical area or its buffer as described below, then a “snag” or wildlife tree shall be created. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official permits its removal in writing.~~

a) ~~Hazard Tree Criteria~~—A hazard tree must meet the following criteria:

- 1) ~~The tree must have a combination of structural defects and/or disease that makes it subject to a high probability of failure and is in proximity to moderate high frequency of persons or property; and~~
- 2) ~~The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices.~~

b) ~~Nuisance Tree Criteria~~—A nuisance tree must meet the following criteria:

- 1) ~~The tree is causing obvious, physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, and roof;~~
- 2) ~~The tree has been damaged by past maintenance practices that cannot be corrected with proper arboricultural practices; or~~
- 3) ~~The problems associated with the tree must be such that they cannot be corrected by any other reasonable practice including, but not limited to, the following:~~

~~• Pruning of the crown or roots of the tree and/or small modifications to the site improvements, including but not limited to a driveway, parking lot, patio or sidewalk, to alleviate the problem.~~

~~• Pruning, bracing, or cabling to reconstruct a healthy crown.~~

2) ~~The removal of any tree will require the planting of a native tree of a minimum of six (6) feet in height in close proximity to where the removed tree was located. The Planning Official shall approve the selection of native species and timing of installation.~~

4. ~~Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers~~

a. ~~Plants intended to mitigate for the loss of natural resource values are subject to the following requirements.~~

- 1) ~~Plant Source—Plant materials must be native and selected from the Kirkland Plant List or otherwise approved by the City's Urban Forester. Seed source must be as local as feasible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the Mitigation Plan specifications.~~
- 2) ~~Installation—Plant materials must be supported only when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.~~
- 3) ~~Fertilizer Applications—Fertilizers shall be applied in such a manner as to prevent their entry into waterways and wetlands and minimize entry into storm drains. No applications shall be made within 50 feet of a waterway or wetland, or a required buffer, whichever is greater, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.~~

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.500 Wetlands**

1. ~~Applicability—The following provisions shall apply to wetlands and wetland buffers located within the shorelines jurisdiction, in place of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this section continue to apply, such as bond or performance security, dedication and liability, but the following sections shall not apply within the shorelines jurisdiction:~~

- a. ~~KZC 90.20—General Exceptions;~~
- b. ~~KZC 90.30—Definitions;~~
- c. ~~KZC 90.75—Totem Lake and Forbes Lake;~~
- d. ~~KZC 90.140—Reasonable Use Exception;~~
- e. ~~KZC 90.160—Appeals;~~
- f. ~~KZC 90.170—Planning/Public Works Official Decisions—Lapse of Approval.~~

2. ~~Wetland Determinations, Delineations, Regulations, Criteria, and Procedures—All determinations and delineations of wetlands shall be made using the criteria and procedures contained in the approved federal wetland delineation manual and applicable regional supplements. All determinations, delineations, and regulations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, or other factors.~~

3. ~~Wetland Determinations—Either prior to or during review of a development application, the Planning Official shall determine whether a wetland or its buffer is present on the subject property using the following provisions:~~

- a. ~~During or immediately following a site inspection, the Planning Official shall make an initial assessment as to whether any portion of the subject property or surrounding area (that shall be the area within 250 feet of the subject property measured in all directions within 250 feet of the OHWM) meets the definition of a wetland. If this initial site inspection does not indicate the presence of a wetland on the subject property or surrounding area, no additional wetland studies will be required at that time.~~

~~However, if the initial site inspection or information subsequently obtained indicates the presence of a wetland on the subject property or surrounding area, then the applicant shall follow the procedure in subsection (3)(b) of this section.~~

b. ~~If the initial site inspection or information subsequently obtained indicates that a wetland may exist on or near the subject property or surrounding area, the applicant shall either (1) fund a study and report prepared by the City's consultant; or (2) submit a report prepared by a qualified professional approved by the City, and fund a review of this report by the City's wetland consultant.~~

e. ~~If a wetland study and report are required, at a minimum the report shall include the following:~~

- ~~1) A summary of the methodology used to conduct the study;~~
- ~~2) A professional survey that is based on the KCAS or plat bearing system and tied to a known monument, depicting the wetland boundary on a map of the surrounding area which shows the wetland and its buffer;~~
- ~~3) A description of the wetland habitat(s) found throughout the entire wetland (not just on the subject property) using the U.S. Fish and Wildlife Service classification system (Classification of Wetlands and Deepwater Habitats in the U.S., Cowardin et al., 1979);~~
- ~~4) A description of nesting, denning, and breeding areas found in the wetland or its surrounding area;~~
- ~~5) A description of the surrounding area, including any drainage systems entering and leaving the wetland, and a list of observed or documented plant and wildlife species;~~
- ~~6) A description of historical, hydrologic, vegetative, topographic, and soil modifications, if any;~~
- ~~7) A proposed classification of the wetland as Category I, II, III, or IV wetland; and~~
- ~~8) A completed rating form using the Washington State Wetland Rating System for Western Washington - Revised (Washington State Department of Ecology Publication No. 04-06-025, or latest version). [Note: When a wetland buffer outside of shorelines jurisdiction is proposed to be modified, the wetland in shorelines jurisdiction must be rated using the methodology required by Chapter 90 KZC to determine the appropriate buffer width. Ecology's rating system and the corresponding buffers only apply to those wetlands and buffers located in shorelines jurisdiction.]~~

d. ~~Formal determination of whether a wetland exists on the subject property, as well as its boundaries and rating, shall be made by the Planning Official after preparation and review of the delineation report, if applicable, by the City's consultant. The Planning Official's decision under this section shall be used for review of any development permit or activity proposed on the subject property for which an application is received within five (5) years of the delineation report; provided, that the Planning Official may modify any decision whenever physical circumstances have markedly and demonstrably changed on the subject property or the surrounding area as a result of natural processes or human activity.~~

#### 4. ~~Wetland Buffers and Setbacks~~

a. ~~No land surface modification shall occur and no improvement may be located in a wetland or its buffer, except as provided in subsections (4) through (10) of this section. See also KZC 83.490(3), Trees in Critical Areas or Critical Area Buffers, and KZC 83.490(4), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers.~~

~~Required or standard buffers for wetlands are as follows and are measured from the outer edge of the wetland boundary:~~

##### ~~Wetland Buffers~~

WETLAND CATEGORY AND CHARACTERISTICS	BUFFER
Category I	

WETLAND CATEGORY AND CHARACTERISTICS	BUFFER
Natural Heritage Wetlands	215 feet
Bog	215 feet
Habitat score <sup>1</sup> from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet
<b>Category II</b>	
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
<b>Category III</b>	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
<b>Category IV</b>	
	50 feet

<sup>1</sup>Habitat score is one (1) of three (3) elements of the rating form.

Note: Buffer widths were developed by King County for its urban growth areas using the best available science information presented in *Chapter 9: Wetlands of Best Available Science—Volume 1: A Review of Scientific Literature*.

Modification to Buffer for Divided Wetland Buffer—Where a legally established, improved public right-of-way, improved easement road or existing structure divides a wetland buffer, the Planning Official may approve a modification of the required buffer in that portion of the buffer isolated from the wetland by the road or structure, provided the isolated portion of the buffer:

- 1) — Does not provide additional protection of the wetland from the proposed development; and
- 2) — Provides insignificant biological, geological or hydrological buffer functions relating to the portion of the buffer adjacent to the wetland.

b. — Buffer Setback—Structures shall be set back at least 10 feet from the designated or modified wetland buffer. The City may allow minor improvements within this setback that would clearly have no adverse effect during their construction, installation, use, or maintenance, on fish, wildlife, or their habitat or any vegetation in the buffer or adjacent wetland.

e. — Storm Water Discharge—Necessary surface discharges of storm water through wetland buffers and buffer setbacks may be allowed on the surface, but piped system discharges are prohibited unless approved pursuant to this section.

Storm water outfalls (piped systems) may be located within the buffer setback specified in subsection (4)(b) of this section and within the buffers specified in subsection (4)(a) of this section only when the City determines, based on a report prepared by a qualified professional under contract to the City and paid for by the applicant, that:

- 1) — Surface discharge of storm water through the buffer would clearly pose a threat to slope stability; and

~~2) — The storm water outfall will not:~~

- ~~a) — Adversely affect water quality;~~
- ~~b) — Adversely affect fish, wildlife, or their habitat;~~
- ~~c) — Adversely affect drainage or storm water detention capabilities;~~
- ~~d) — Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and~~
- ~~e) — Be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas.~~

~~Storm water outfalls shall minimize potential impacts to the wetland or wetland buffer by meeting the following design standards:~~

~~1) — Catch basins must be installed as far as feasible from the buffer boundary.~~

~~2) — Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:~~

- ~~a) — Installation of the discharge end as far as feasible from the sensitive area; and~~
- ~~b) — Use of appropriate energy dissipation at the discharge end.~~

~~d. — Water Quality Facilities — Water quality facilities, as determined by the City, may be located within the required wetland buffers of subsection (4)(a) of this section. The City may only approve a proposal to install a water quality facility within the outer one-half (1/2) of a wetland buffer if a feasible location outside of the buffer is not available and only if:~~

- ~~1) — It will not adversely affect water quality;~~
- ~~2) — It will not adversely affect fish, wildlife, or their habitat;~~
- ~~3) — It will not adversely affect drainage or storm water detention capabilities;~~
- ~~4) — It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;~~
- ~~5) — It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas;~~
- ~~6) — The existing buffer is already degraded as determined by a qualified professional;~~
- ~~7) — Installation would be followed immediately by enhancement of an area equal in size and immediately adjacent to the affected portion of the buffer; and~~
- ~~8) — Once installed, it would not require any further disturbance or intrusion into the buffer.~~

~~The City may only approve a proposal by a public agency to install a water quality facility elsewhere in a wetland buffer if the criteria in subsections (4)(d)(9) through (11) of this section is met in addition to subsections (4)(d)(1) through (8) of this section:~~

- ~~9) — The project includes enhancement of the entire buffer;~~
- ~~10) — The project would provide an exceptional ecological benefit off-site; and~~
- ~~11) — There is no feasible alternative proposal that results in less impact to the buffer.~~



e. ~~Utilities and Rights of Way~~—The following work may only be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing in KZC 83.490(2) has been considered and implemented, provided that activities will not increase the impervious area or reduce flood storage capacity:

- 1) ~~All utility work in improved City rights of way;~~
- 2) ~~All normal and routine maintenance, operation and reconstruction of existing roads, streets, and associated rights-of-way and structures; and~~
- 3) ~~Construction of sewer or water lines that connect to existing lines in a sensitive area or buffer where no feasible alternative location exists based on an analysis of technology and system efficiency.~~

~~All affected critical areas and buffers shall be expeditiously restored to their pre-project condition or better. For purposes of this subsection only, “improved City rights-of-way” include those rights-of-way that have improvements only underground, as well as those with surface improvements.~~

f. ~~Minor Improvements~~—Minor improvements may be located within the sensitive area buffers specified in subsection (4)(a) of this section. These minor improvements shall only be located within the outer one-half (1/2) of the sensitive area buffer, except where approved stream crossings are made.

~~The City may only approve a proposal to construct a minor improvement within an environmentally sensitive area buffer if:~~

- 1) ~~It will not adversely affect water quality;~~
- 2) ~~It will not adversely affect fish, wildlife, or their habitat;~~
- 3) ~~It will not adversely affect drainage or storm water detention capabilities;~~
- 4) ~~It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;~~
- 5) ~~It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas; and~~
- 6) ~~It supports public or private shoreline access.~~

~~The City may require the applicant to submit a report prepared by a qualified professional that describes how the proposal will or will not comply with the criteria for approving a minor improvement.~~

5. ~~Wetland Buffer Fence or Barrier~~—Prior to beginning development activities, the applicant shall install a 6-foot high construction phase chain link fence or equivalent fence with silt screen fabric, as approved by the Planning Official and consistent with City standards, along the upland boundary of the entire wetland buffer. The construction phase fence shall remain upright in the approved location for the duration of development activities.

Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either (a) a permanent 3 to 4 foot tall split rail fence; or (b) equivalent barrier, as approved by the Planning Official. Installation of the permanent fence or equivalent barrier must be done by hand where necessary to prevent machinery from entering the wetland or its buffer.

6. ~~Permit Process~~—The City shall consolidate and integrate the review and processing of the critical areas aspects of the proposal with the shoreline permit required for the proposed development activity, except as follows:

Development Proposal	Permit Process
Wetland modifications, or wetland buffer modifications affecting greater than 25 percent of the standard buffer	Shoreline variance pursuant to Process IIA, described in Chapter 141 KZC

Development Proposal	Permit Process
Wetland buffer modifications affecting 25 percent or less of the standard buffer	Underlying development permit or development activity
Wetland restoration plans	Underlying development permit or development activity

## 7. ~~Modification of Wetlands~~

a. ~~No land surface modification shall occur and no improvement shall be located in a wetland, except as provided in this subsection. Furthermore, all modifications of a wetland shall be consistent with Kirkland's Streams, Wetlands and Wildlife Study (The Watershed Company, 1998) and the Kirkland Sensitive Areas Regulatory Recommendations Report (Adolfson Associates, Inc., 1998).~~

b. ~~Submittal Requirements~~—The applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall include the following:

- 1) ~~A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in subsection (3) of this section for a wetland;~~
- 2) ~~A description of the area of the site that is within the sensitive area or within the setbacks or buffers required by this chapter;~~
- 3) ~~An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;~~
- 4) ~~An analysis of the mitigation sequencing as outlined in KZC 83.490(2);~~
- 5) ~~An assessment of the habitat, water quality, storm water detention, ground water recharge, shoreline protection, and erosion protection functions of the wetland and its buffer. The report shall also assess the effects of the proposed modification on those functions;~~
- 6) ~~Sensitive site design and construction staging of the proposal so that the development away from the sensitive area and/or sensitive area buffer will minimize net loss of sensitive area and/or sensitive area buffer functions to the greatest extent feasible;~~
- 7) ~~A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;~~
- 8) ~~Information specified in subsection (8) of this section;~~
- 9) ~~An evaluation of the project's consistency with the shoreline variance criteria contained in WAC 173-27-170; and~~
- 10) ~~Such other information or studies as the Planning Official may reasonably require.~~

e. ~~Decisional Criteria~~—The City may only approve an improvement or land surface modification in a wetland if:

- 1) ~~The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490(2);~~
- 2) ~~It will not adversely affect water quality;~~
- 3) ~~It will not adversely affect fish, wildlife, or their habitat;~~
- 4) ~~It will not have an adverse effect on drainage and/or storm water detention capabilities;~~

- 5) ~~It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;~~
- 6) ~~It will not be materially detrimental to any other property or the City as a whole;~~
- 7) ~~Compensatory mitigation is provided in accordance with the table in subsection (8) of this section;~~
- 8) ~~Fill material does not contain organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat;~~
- 9) ~~All exposed areas are stabilized with vegetation normally associated with native wetlands and/or buffers, as appropriate; and~~
- 10) ~~There is no feasible alternative development proposal that results in less impact to the wetland and its buffer.~~

8. ~~Compensatory Mitigation—All approved impacts to regulated wetlands require compensatory mitigation so that the goal of no net loss of wetland function, value, and acreage is achieved. A mitigation proposal must utilize the mitigation ratios specified below as excerpted from: Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10, March 2006. *Wetland Mitigation in Washington State—Part 1: Agency Policies and Guidance (Version 1)*. Washington State Department of Ecology Publication No. 06-06-011a. Olympia, WA.~~

**Compensatory Mitigation**

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only <sup>1</sup>	Re-establishment or Creation (R/C) and Rehabilitation (RH) <sup>1</sup>	Re-establishment or Creation (R/C) and Enhancement (E) <sup>1</sup>	Enhancement Only <sup>1</sup>
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I—based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not allowed	6:1 Rehabilitation of a Natural Heritage site	Not allowed	Not allowed	Case-by-case
Category I Bog	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Case-by-case

<sup>1</sup>These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

9. ~~Wetland Buffer Modification~~

- a. ~~Departures from the standard buffer requirements shall be approved only after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490(2).~~

b.—Approved departures from the standard buffer requirements of subsection (4) of this section allow applicants to modify the physical and biological conditions of portions of the standard buffer for the duration of the approved project. These approved departures from the standard buffer requirements do not permanently establish a new regulatory buffer edge. Future development activities on the subject property may be required to re-establish the physical and biological conditions of the standard buffer.

e.—Modification of Wetland Buffers When Wetland Is Also to Be Modified—Wetland buffer impact is assumed to occur when wetland fill or modification is proposed. Any proposal for wetland fill/modification shall include provisions for establishing a new wetland buffer to be located around the compensatory mitigation sites and to be equal in width to its standard buffer specified in subsection (4)(a) of this section or a buffer reduced in accordance with this section by no more than 25 percent of the standard buffer width in all cases, regardless of wetland category or basin type.

d.—Modification of Wetland Buffers When Wetland Is Not to Be Modified—No land surface modification may occur and no improvement may be located in a wetland buffer, except as provided for in this subsection.

1)—Types of Buffer Modifications—Buffers may be reduced through one (1) of two (2) means, either (a) buffer averaging, or (b) buffer reduction with enhancement. A combination of these two (2) buffer reduction approaches shall not be used:

a)—Buffer averaging requires that the area of the buffer resulting from the buffer averaging is equal in size and quality to the buffer area calculated by the standards specified in subsection (4) of this section. Buffers may not be reduced at any point by more than 25 percent of the standards specified in subsection (4) of this section, unless approved through a shoreline variance. Buffer averaging calculations shall only consider the subject property.

b)—Buffers may be decreased through buffer enhancement. The applicant shall demonstrate that through enhancing the buffer (by removing invasive plants, planting native vegetation, installing habitat features, such as downed logs or snags, or other means), the reduced buffer will function at a higher level than the existing standard buffer.

The reduced on-site buffer area must be planted and maintained as needed to yield over time a reduced buffer that is equivalent to undisturbed Puget lowland forests in density and species composition. At a minimum, a buffer enhancement plan shall provide the following: (1) a map locating the specific area of enhancement; (2) a planting plan that uses native species, including groundcover, shrubs, and trees; and (3) a monitoring and maintenance program prepared by a qualified professional consistent with the standards specified in subsection (10) of this section.

Buffers may not be reduced at any point by more than 25 percent of the standards in subsection (4)(a) of this section. Buffer reductions of more than 25 percent approved through a shoreline variance will be assumed to have direct wetland impacts that must be compensated for as described in subsection (8) of this section.

2)—Decisional Criteria—An improvement or land surface modification may be approved in a wetland buffer only if:

a)—The development activity or buffer modification demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490(2);

b)—It is consistent with Kirkland's Streams, Wetlands and Wildlife Study (The Watershed Company, 1998) and the Kirkland Sensitive Areas Regulatory Recommendations Report (Adolfson Associates, Inc., 1998);

c)—It will not adversely affect water quality;

d)—It will not adversely affect fish, wildlife, or their habitat;

- e) — It will not have an adverse effect on drainage and/or storm water detention capabilities, ground-water recharge or shoreline protection;
- f) — It will not lead to unstable earth conditions or create an erosion hazard;
- g) — It will not be materially detrimental to any other property or the City as a whole;
- h) — Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat;
- i) — All exposed areas are stabilized with vegetation normally associated with native wetland buffers, as appropriate; and
- j) — There is no feasible alternative development proposal that results in less impact to the buffer.

As part of the modification request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall assess the water quality, habitat, drainage or storm water detention, ground water recharge, shoreline protection, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions; and address the 10 criteria listed in subsection (9)(d)(2) of this section.

10. — On-Site Versus Off-Site Mitigation — On-site mitigation for a wetland or its buffer is preferable to off-site mitigation. Given on-site constraints, the City may approve a plan to implement all or a portion of the required mitigation off-site, if the off-site mitigation is within the same drainage basin as the property that will be impacted by the project. The applicant shall demonstrate that the off-site mitigation will result in higher wetland functions, values, and/or acreage than on-site mitigation. Required compensatory mitigation ratios shall be the same for on-site or off-site mitigation, or a combination of both.

If the proposed on-site or off-site mitigation plan will result in the creation or expansion of a wetland or its buffer on any property other than the subject property, the plan shall not be approved until the applicant submits to the City a copy of a statement signed by the owners of all affected properties, in a form approved by the City Attorney and recorded in the King County Bureau of Elections and Records, consenting to the wetland and/or buffer creation or increase on such property and to the required maintenance and monitoring that may follow the creation or expansion of a wetland or its buffer.

11. — Mitigation Plan and Monitoring and Maintenance Program — Applicants proposing to alter wetlands or their buffers shall submit a mitigation plan prepared by a qualified professional. The mitigation plan shall consist of a description of the existing functions and values of the wetlands and buffers affected by the proposed project, the nature and extent of impacts to those areas, and the mitigation measures to offset those impacts. The mitigation plan shall also contain a drawing that illustrates the compensatory mitigation elements. The plan and/or drawing shall list plant materials and other habitat features to be installed.

To ensure success of the mitigation plan, the applicant shall submit a monitoring and maintenance program prepared by a qualified professional. At a minimum, the monitoring and maintenance plan shall include the following:

- a. — The goals and objectives for the mitigation plan;
- b. — Success criteria by which the mitigation will be assessed;
- c. — Plans for a 5-year monitoring and maintenance program;
- d. — A contingency plan in case of failure; and
- e. — Proof of a written contract with a qualified professional who will perform the monitoring program.

The monitoring program shall consist of at least two (2) site visits per year by a qualified professional, with annual progress reports submitted to the City and all other agencies with jurisdiction.

~~The cost of producing and implementing the mitigation plan, the monitoring and maintenance program, reports, and drawing, as well as the review of each component by the City's wetland consultant, shall be borne by the applicant.~~

6. Shoreline Variance for Wetland ~~and Stream~~ Modifications ~~and Related Impacts to their or Wetland Buffer Buffers~~— An applicant who is unable to comply with the specific standards of ~~this section~~ Chapter 90 must obtain a shoreline variance, pursuant to KZC 141.70(3) and meet the criteria set forth in WAC ~~183.173~~-27-170. In addition, the following City submittal requirements and criteria must also be met:

a. Submittal Requirements – As part of the shoreline variance request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's qualified professional. The report shall include the following:

- 1) A determination and delineation of the critical area and critical area buffer containing all the information specified in KZC ~~83.490.3 and KZC 83.490.4~~ Chapter 90;
- 2) An analysis of whether any other proposed development with less impact on the critical area and critical area buffer is feasible;
- 3) Sensitive site design and construction staging of the proposal so that the development will have the least feasible impact on the critical area and critical area buffer;
- 4) A description of the area of the site that is within the critical area and its buffer required by this chapter;
- 5) A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;
- 6) An analysis of the impact that the proposed development would have on the critical area and its buffer;
- 7) How the proposal minimizes net loss of critical area and/or critical area buffer functions to the greatest extent feasible;
- 8) Whether the improvement is located away from the critical area and the critical area buffer to the greatest extent feasible;
- 9) ~~Information specified in KZC 83.500.6 for~~ a description of wetland compensatory mitigation;
- 10) Such other information or studies as the Planning Official may require.

b. Decisional Criteria – The City may grant approval of a shoreline variance only if all of the following criteria are met:

- 1) No other permitted type of land use for the property with less impact on the critical area and its buffer is feasible;
- 2) The proposal has the minimum area of disturbance;
- 3) The proposal maximizes the amount of existing tree canopy that is retained;
- 4) The proposal utilizes to the maximum extent feasible innovative construction, design, and development techniques, including pervious surfaces, that minimize to the greatest extent feasible net loss of critical area functions and values;
- 5) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;

6) The proposal meets the mitigation, ~~maintenance, and monitoring plan~~ standards in KZC 83.490.17~~Chapter 90 and maintenance, and monitoring program requirements of KZC 83.490.18;~~

7) The granting of the shoreline variance will not confer on the applicant any special privilege that is denied by this chapter to other lands, buildings, or structures under similar circumstances.

~~13.—Wetland Restoration—City approval is required prior to wetland restoration. The City may permit or require the applicant or property owner to restore and maintain a wetland and/or its buffer by removing material detrimental to the area, such as debris, sediment, or vegetation. The City may also permit or require the applicant to restore a wetland or its buffer through the addition of native plants and other habitat features. See also KZC 83.490(3), Trees in Critical Areas or Critical Area Buffers; and KZC 83.490(4), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Restoration may be required whenever a condition detrimental to water quality or habitat exists. When the City requires wetland restoration, the requirements of subsection (8) of this section, Compensatory Mitigation, shall apply.~~

~~14.—Wetland Access—The City may develop access through a wetland and its buffer in conjunction with a public park, provided the purpose supports education or passive recreation, and is designed to minimize environmental impacts during construction and operation.~~

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.510 Streams**

1.—Applicability—The following provisions shall apply to streams and stream buffers located within the shorelines jurisdiction, in place of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this section continue to apply, such as bond or performance security, dedication and liability, but the following subsections shall not apply within the shorelines jurisdiction:

- a.—KZC 90.20—General Exceptions;
- b.—KZC 90.30—Definitions;
- e.—KZC 90.75—Totem Lake and Forbes Lake;
- d.—KZC 90.140—Reasonable Use Exception;
- e.—KZC 90.160—Appeals;
- f.—KZC 90.170—Planning/Public Works Official Decisions—Lapse of Approval.

2.—Activities In or Near Streams—No land surface modification shall occur and no improvements shall be located in a stream or its buffer, except as provided in subsections (3) through (11) of this section.

3.—Stream Determinations—The Planning Official shall determine whether a stream or stream buffer is present on the subject property using the following provisions. During or immediately following a site inspection, the Planning Official shall make an initial assessment as to whether a stream exists on any portion of the subject property or surrounding area (that shall be the area within approximately 100 feet of the subject property except 200 feet in the shoreline area for the RSA and RMA zones and O. O. Denny Park).

If the initial site inspection indicates the presence of a stream, the Planning Official shall determine, based on the definitions contained in this chapter and after a review of all information available to the City, the classification of the stream.

If this initial site inspection does not indicate the presence of a stream on or near the subject property, no additional stream study will be required.

If an applicant disagrees with the Planning Official's determination that a stream exists on or near the subject property or the Planning Official's classification of a stream, the applicant shall submit a report prepared by a



qualified professional approved by the Planning Official that independently evaluates the presence of a stream or the classification of the stream, based on the definitions contained in this chapter.

The Planning Official shall make final determinations regarding the existence of a stream and the proper classification of that stream. The Planning Official's decision under this section shall be used for review of any development activity proposed on the subject property for which an application is received within five (5) years of the decision; provided, that the Planning Official may modify any decision whenever physical circumstances have markedly and demonstrably changed on the subject property or the surrounding area as a result of natural processes or human activity.

#### 4. ~~Stream Buffers and Setbacks~~

a. ~~Stream Buffers~~—No land surface modification shall occur and no improvement shall be located in a stream or its buffer, except as provided in this section. See also KZC 83.490(3), ~~Trees in Critical Areas or Critical Area Buffers~~; and KZC 83.490(4), ~~Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers~~.

~~Required or standard buffers for streams are as follows:~~

~~The following table applies to all shoreline areas other than the RSA and RMA zones and O. O. Denny Park:~~

~~Stream Buffers~~

<del>Stream Class</del>	<del>Primary Basins</del>	<del>Secondary Basins</del>
<del>A</del>	<del>75 feet</del>	<del>N/A</del>
<del>B</del>	<del>60 feet</del>	<del>50 feet</del>
<del>C</del>	<del>35 feet</del>	<del>25 feet</del>

~~The following table applies to the shoreline areas in the RSA and RMA zones and O. O. Denny Park:~~

~~Stream Buffers~~

<del>Stream Types</del>	<del>Stream Buffer Width</del>
<del>Type F: All segments of aquatic areas that are not shorelines of the state (Lake Washington) and that contain fish or fish habitat.</del>	<del>115 feet</del>
<del>Type N: All segments of aquatic areas that are not shorelines (Lake Washington) or Type F streams and that are physically connected to a shoreline of the state (Lake Washington) or a Type F stream by an above-ground channel system, stream or wetland.</del>	<del>65 feet</del>
<del>Type O: All segments of aquatic areas that are not shorelines of the state (Lake Washington), Type F streams or Type N streams and that are not physically connected to a shoreline of the state (Lake Washington), a Type F stream or a Type N stream by an above-ground channel system, pipe, culvert, stream or wetland.</del>	<del>25 feet</del>

~~(Note: Stream types F, N and O reflect the Department of Natural Resources' classification system.)~~

~~Stream buffers shall be measured from each side of the OHWM of the stream, except that where streams enter or exit pipes, the buffer shall be measured in all directions from the pipe opening. Essential improvements to accommodate required vehicular, pedestrian, or utility access to the subject property may be located within those portions of stream buffers that are measured toward culverts from culvert openings.~~

~~Where a legally established, improved road right-of-way or structure divides a stream buffer, the Planning Official may approve a modification of the required buffer in that portion of the buffer isolated from the stream by the road or structure, provided the isolated portion of the buffer:~~

- ~~1) — Does not provide additional protection of the stream from the proposed development; and~~
- ~~2) — Provides insignificant biological, geological or hydrological buffer functions relating to the portion of the buffer adjacent to the stream.~~

~~b. — Buffer Setback — Structures shall be set back at least 10 feet from the designated or modified stream buffer. The City may allow within this setback minor improvements that would have no potential adverse effect during their construction, installation, use, or maintenance to fish, wildlife, or their habitat or to any vegetation in the buffer or adjacent stream.~~

~~c. — Storm Water Discharge — Necessary discharge of storm water through stream buffers and buffer setbacks may be allowed on the surface, but a piped system discharge is prohibited unless approved pursuant to this section. Storm water outfalls (piped systems) may be located within the buffer setback specified in subsection (4)(b) of this section and within the buffers specified in subsection (4)(a) of this section only when the City determines, based on a report prepared by a qualified professional under contract to the City and paid for by the applicant, that surface discharge of storm water through the buffer would clearly pose a threat to slope stability; and if the storm water outfall will not:~~

- ~~1) — Adversely affect water quality;~~
- ~~2) — Adversely affect fish, wildlife, or their habitat;~~
- ~~3) — Adversely affect drainage or storm water detention capabilities;~~
- ~~4) — Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and~~
- ~~5) — Be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas.~~

~~Storm water facilities shall minimize potential impacts to the stream or stream buffer by meeting the following design standards:~~

- ~~1) — Catch basins must be installed as far as feasible from the buffer boundary.~~
- ~~2) — Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:~~
  - ~~a) — Installation of the discharge end as far as feasible from the sensitive area; and~~
  - ~~b) — Use of appropriate energy dissipation at the discharge end.~~

~~d. — Water Quality Facilities — The City may only approve a proposal to install a water quality facility within the outer one-half (1/2) of a stream buffer if a suitable location outside of the buffer is not available and only if:~~

- ~~1) — It will not adversely affect water quality;~~
- ~~2) — It will not adversely affect fish, wildlife, or their habitat;~~

- ~~3) — It will not adversely affect drainage or storm water detention capabilities;~~
- ~~4) — It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;~~
- ~~5) — It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas;~~
- ~~6) — The existing buffer is already degraded as determined by a qualified professional;~~
- ~~7) — The installation of the water quality facility would be followed immediately by enhancement of an area equal in size and immediately adjacent to the affected portion of the buffer; and~~
- ~~8) — Once installed, it would not require any further disturbance or intrusion into the buffer.~~

~~The City may only approve a proposal by a public agency to install a water quality facility elsewhere in a stream buffer if criteria in subsections (4)(d)(9) through (11) of this section are met in addition to subsections (4)(d)(1) through (8) of this section:~~

- ~~9) — The project includes enhancement of the entire on-site buffer;~~
- ~~10) — The project would provide an exceptional ecological benefit off-site; and~~
- ~~11) — There is no feasible alternative proposal that results in less impact to the buffer.~~

~~e. — Utilities and Rights of Way — Provided that activities will not increase the impervious surface area or reduce flood storage capacity, the following work shall be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing per KZC 83.490(2) has been considered and implemented:~~

- ~~1) — All utility work in improved City rights of way;~~
- ~~2) — All normal and routine maintenance, operation and reconstruction of existing roads, streets, and associated rights of way and structures; and~~
- ~~3) — Construction of sewer or water lines that connect to existing lines in a sensitive area or buffer where no feasible alternative location exists based on an analysis of technology and system efficiency.~~

~~All affected critical areas and buffers shall be expeditiously restored to their pre-project condition or better. For purposes of this subsection only, “improved City rights of way” include those rights of way that have improvements only underground, as well as those with surface improvements.~~

~~f. — Minor Improvements — Minor improvements may be located within the sensitive area buffers specified in subsection (4) of this section. These minor improvements shall be located within the outer one-half (1/2) of the sensitive area buffer, except where approved stream crossings are made. The City may only approve a proposal to construct a minor improvement within a sensitive area buffer if:~~

- ~~1) — It will not adversely affect water quality;~~
- ~~2) — It will not adversely affect fish, wildlife, or their habitat;~~
- ~~3) — It will not adversely affect drainage or storm water detention capabilities;~~
- ~~4) — It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;~~
- ~~5) — It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas; and~~
- ~~6) — It supports public or private shoreline access.~~

The City may require the applicant to submit a report prepared by a qualified professional that describes how the proposal will or will not comply with the criteria for approving a minor improvement.

5. ~~Stream Buffer Fence or Barrier~~—Prior to beginning development activities, the applicant shall install a 6-foot-high construction phase chain link fence or equivalent fence, as approved by the Planning Official and consistent with City standards, along the upland boundary of the entire stream buffer with silt screen fabric. The construction-phase fence shall remain upright in the approved location for the duration of development activities.

Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either (a) a permanent 3 to 4 foot tall split rail fence; or (b) equivalent barrier, as approved by the Planning Official. Installation of the permanent fence or equivalent barrier must be done by hand where necessary to prevent machinery from entering the stream or its buffer.

6. ~~Permit Process~~—The City shall consolidate and integrate the review and processing of the critical areas aspects of the proposal with the shoreline permit required for the proposed development activity, except as follows:

Development Proposal	Permit Process
Stream relocations or modifications, or stream buffer modifications affecting more than one third (1/3) of the standard buffer, or more than one fourth (1/4) of the standard buffer in the shoreline areas of the RSA and RMA zones and O. O. Denny Park	Shoreline variance pursuant to Process HA, described in Chapter 141 KZC
Stream buffer modifications affecting one third (1/3) or less than the standard buffer, or one fourth (1/4) or less than the standard buffer in the shoreline areas of the RSA and RMA zones and O. O. Denny Park	Underlying development permit or development activity
Bulkheads or other hard stabilization measures in stream, stream crossings or stream rehabilitation	Underlying development permit or development activity

7. ~~Stream Buffer Modification~~

a. ~~Departures from the standard buffer requirements shall be approved only after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490(2).~~

b. ~~Approved departures from the standard buffer requirements of subsection (4)(a) of this section allow applicants to modify the physical and biological conditions of portions of the standard buffer for the duration of the approved project. These approved departures from the standard buffer requirements do not permanently establish a new regulatory buffer edge. Future development activity on the subject property may be required to re-establish the physical and biological conditions of the standard buffer.~~

e. ~~Types of Buffer Modification~~—Buffers may be reduced through one (1) of two (2) means, either (1) buffer averaging; or (2) buffer reduction with enhancement. A combination of these two (2) buffer reduction approaches shall not be used.

1) ~~Buffer averaging requires that the area of the buffer resulting from the buffer averaging be equal in size and quality to the buffer area calculated by the standards specified in subsection (4)(a) of this section. Buffers may not be reduced at any point by more than one third (1/3) of the standards in subsection (4)(a) of this section, or not by more than one fourth (1/4) in the shoreline areas of the RSA and RMA zones and O. O. Denny Park. Buffer averaging calculations shall only consider the subject property.~~

2) ~~Buffers may be decreased through buffer enhancement. The applicant shall demonstrate that through enhancing the buffer (by removing invasive plants, planting native vegetation, installing habitat features such as downed logs or snags, or other means) the reduced buffer will function at a higher level than the standard existing buffer. The reduced on-site buffer area must be planted and maintained as needed to yield over time a reduced buffer that is equivalent to an undisturbed Puget lowland forest in density and species composition.~~

A buffer enhancement plan shall at a minimum provide the following: (a) a map locating the specific area of enhancement; (b) a planting plan that uses native species, including groundcover, shrubs, and trees; and (c) a monitoring and maintenance program prepared by a qualified professional consistent with the standards specified in KZC 83.500(11).—

Buffers may not be reduced at any point by more than one third (1/3) of the standards in subsection (4)(a) of this section, or not by more than one fourth (1/4) for the shoreline areas in the RSA and RMA zones and O. O. Denny Park.

d. ~~Decisional Criteria~~—An improvement or land surface modification may be approved in a stream buffer only if:

- 1) ~~The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490(2);~~
- 2) ~~It is consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998) or the *Shoreline Restoration Plan* (The Watershed Company, 2010);~~
- 3) ~~It will not adversely affect water quality;~~
- 4) ~~It will not adversely affect fish, wildlife, or their habitat;~~
- 5) ~~It will not have an adverse effect on drainage and/or storm water detention capabilities;~~
- 6) ~~It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;~~
- 7) ~~It will not be materially detrimental to any other property or the City as a whole;~~
- 8) ~~Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat;~~
- 9) ~~All exposed areas are stabilized with vegetation normally associated with native stream buffers, as appropriate; and~~
- 10) ~~There is no practicable or feasible alternative development proposal that results in less impact to the buffer.~~

As part of the modification request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall assess the habitat, water quality, storm water detention, ground water recharge, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions; and address the 10 criteria listed in subsections (7)(d)(1) through (10) of this section.

8. ~~Shoreline Variance for Stream Relocation or Modification or Stream Buffer Modification~~—An applicant who is unable to comply with the specific standards of this section must obtain a shoreline variance pursuant to KZC 141.70(3) and meet the criteria set forth in WAC 183-27-170. In addition, the following City submittal requirements and criteria must also be met:

a. ~~Submittal Requirements~~—As part of the shoreline variance request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's qualified professional. The report shall include the following:

- 1) ~~A determination of the stream and the stream buffer based on the definitions contained in KZC 83.80;~~

- 2) — An analysis of whether any other proposed development with less impact on the sensitive area and sensitive area buffer is feasible;
- 3) — Sensitive site design and construction staging of the proposal so that the development will have the least feasible impact on the sensitive area and sensitive area buffer;
- 4) — A description of the area of the site that is within the sensitive area or within the setbacks or buffers required by this chapter;
- 5) — A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;
- 6) — An analysis of the impact that the proposed development would have on the sensitive area and the sensitive area buffer;
- 7) — How the proposal minimizes net loss of sensitive area and/or sensitive area buffer functions to the greatest extent feasible;
- 8) — Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent feasible;
- 9) — Information specified in KZC 83.500(8) for compensatory mitigation; and
- 10) — Such other information or studies as the Planning Official may reasonably require.

b. — ~~Decisional Criteria~~ — The City may grant approval of a shoreline variance only if all of the following criteria are met:

- 1) — No other permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible;
- 2) — The proposal has the minimum area of disturbance;
- 3) — The proposal maximizes the amount of existing tree canopy that is retained;
- 4) — The proposal utilizes to the maximum extent feasible innovative construction, design, and development techniques, including pervious surfaces that minimize to the greatest extent feasible net loss of sensitive area functions and values;
- 5) — The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
- 6) — The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter; and
- 7) — The granting of the shoreline variance will not confer on the applicant any special privilege that is denied by this chapter to other lands, buildings, or structures under similar circumstances.

9. — ~~Stream Relocation or Modification~~ — The City may only permit a stream to be relocated or modified if water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream will be significantly improved by the relocation or modification. Convenience to the applicant in order to facilitate general site design shall not be considered.

A proposal to relocate or modify a stream may only be approved if the Washington Department of Fish and Wildlife issues a hydraulic project approval for the project. Furthermore, all modifications shall be consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland-Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998), and the *Shoreline Restoration Plan* (The Watershed Company, 2010).

If the proposed stream activity will result in the creation or expansion of a stream or its buffer on any property other than the subject property, the City shall not approve the plan until the applicant submits to the City a copy of a statement signed by the owners of all affected properties, in a form approved by the City Attorney and recorded in the King County Recorder's Office, consenting to the sensitive area and/or buffer creation or increase on such property.

Prior to the City's decision to authorize approval of a stream relocation or modification, the applicant shall submit a stream relocation/modification plan prepared by a qualified professional approved by the City. The cost of producing, implementing, and monitoring the stream relocation/modification plan, and the cost of review of that plan by the City's stream consultant shall be borne by the applicant. This plan shall contain or demonstrate the following:

- a. A topographic survey showing existing and proposed topography and improvements;
- b. The filling and revegetation of the existing stream channel;
- c. A proposed phasing plan specifying time of year for all project phases;
- d. The ability of the new stream channel to accommodate flow and velocity of 100-year storm events; and
- e. The design and implementation features and techniques listed below, unless clearly and demonstrably inappropriate for the proposed relocation or modification:
  - 1) The creation of natural meander patterns;
  - 2) The formation of gentle and stable side slopes, no steeper than two (2) feet horizontal to one (1) foot vertical, and the installation of both temporary and permanent erosion control features (the use of native vegetation on streambanks shall be emphasized);
  - 3) The creation of a narrow sub-channel (thalweg) against the south or west streambank to maximize stream shading;
  - 4) The utilization of native materials;
  - 5) The installation of vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife;
  - 6) The creation of spawning areas, as appropriate;
  - 7) The re-establishment of fish population, as appropriate;
  - 8) The restoration of water flow characteristics compatible with fish habitat areas;
  - 9) Demonstration that the flow and velocity of the stream after relocation or modification shall not be increased or decreased at the points where the stream enters and leaves the subject property, unless the change has been approved by the City to improve fish and wildlife habitat or to improve storm water management;
  - 10) A written description of how the proposed relocation or modification of the stream will significantly improve water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream; and
  - 11) A monitoring and maintenance plan consistent with KZC 83.500(11) for wetlands.

Prior to diverting water into a new stream channel, a qualified professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section. The cost for this inspection and report shall be borne by the applicant.



~~10. Streambank Protection~~

~~a. General~~

- ~~1) Streambank protection measures shall be selected to address site and reach-based conditions and to avoid habitat impacts.~~
- ~~2) The selection of the streambank protection technique shall be based upon an evaluation of site conditions, reach conditions and habitat impacts.~~
- ~~3) Nonstructural or soft structural streambank protection measures shall be implemented unless demonstrated to not be feasible.~~

~~b. Submittal Requirements for Streambank Protection Measures — An assessment prepared by a qualified professional containing the following shall be submitted to the City:~~

- ~~1) An evaluation of the specific mechanism(s) of streambank failure as well as the site and reach-based causes of erosion.~~
- ~~2) An evaluation of the considerations used in identifying the preferred streambank solution technique. The evaluation shall address the provisions established in the Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised).~~

~~c. Bulkheads or other erosion control practices using hardened structures that armor and stabilize the streambank from further erosion are not permitted along a stream, except as provided in this subsection. The City shall allow a bulkhead to be constructed only if:~~

- ~~1) It is not located within a wetland or between a wetland and a stream;~~
- ~~2) It is needed to prevent significant erosion;~~
- ~~3) The use of vegetation and/or other biological materials would not sufficiently stabilize the streambank to prevent significant erosion;~~
- ~~4) The applicant submits a plan prepared by a qualified professional approved by the City that shows a bulkhead and implementation techniques that meet the following criteria:~~
  - ~~a) There will be no adverse impact to water quality;~~
  - ~~b) There will be no adverse impact to fish, wildlife, and their habitat;~~
  - ~~c) There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;~~
  - ~~d) There will be no decrease in flood storage volumes;~~
  - ~~e) The installation, existence, or operation of the bulkhead will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and~~
  - ~~f) The installation, existence or operation of the bulkhead or other hard stabilization measures will be detrimental to any other property or the City as a whole.~~
- ~~5) The Washington Department of Fish and Wildlife issues a hydraulic project approval for the project.~~

~~d. The streambank protection shall be designed consistent with Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised). The stabilization measure shall be designed and constructed to minimize the transmittal of water current and energy to other properties. Changes in the horizontal or vertical configuration of the land shall be kept to a minimum. Fill material used in~~

~~construction of a bulkhead shall be nondissolving and nondecomposing. The applicant shall also stabilize all exposed soils by planting native riparian vegetation with high food and cover value for fish and wildlife.~~

~~11. Stream Crossings—Stream crossings are not permitted, except as specified in this subsection. The City shall review and decide upon an application to cross a stream with an access drive, driveway, or street. A stream crossing shall be allowed only if:~~

~~a. The stream crossing is necessary to provide required vehicular, pedestrian, or utility access to the subject property. Convenience to the applicant in order to facilitate general site design shall not be considered;~~

~~b. The Washington Department of Fish and Wildlife issues a hydraulic project approval for the project; and~~

~~c. The applicant submits a plan prepared by a qualified professional approved by the City that shows the crossing and implementation techniques that meet the following criteria:~~

~~1) There will be no adverse impact to water quality;~~

~~2) There will be no adverse impact to fish, wildlife, and their habitat;~~

~~3) There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;~~

~~4) There will be no decrease in flood storage volumes;~~

~~5) The installation, existence, or operation of the stream crossing will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and~~

~~6) The installation, existence or operation of the stream crossing will be detrimental to any other property or to the City as a whole.~~

~~d. The stream crossing shall be designed and constructed to allow passage of fish inhabiting the stream or that may inhabit the stream in the future. The stream crossing shall be designed to accommodate a 100 year-storm event. The applicant shall at all times maintain the crossing so that debris and sediment do not interfere with free passage of water, wood and fish. The City shall require a security or perpetual maintenance agreement under Chapter 90 KZC for continued maintenance of the stream crossing.~~

~~e. A bridge is the preferred stream crossing method. If a bridge is not economically or technologically feasible, or would result in greater environmental impacts than a culvert, a proposal for a culvert may be approved if the culvert complies with the criteria in this subsection and is designed consistent with Washington Department of Fish and Wildlife's *Design of Road Culverts for Fish Passage* (2003, or as revised).~~

~~f. If a proposed project requires approval through a shoreline conditional use, the City may require that any stream in a culvert on the subject property be opened, relocated, and restored consistent with the provisions of this subsection.~~

~~12. Stream Rehabilitation—City approval is required prior to stream rehabilitation. The City may permit or require the applicant or property owner to restore and maintain a stream and/or its buffer by removing material detrimental to the stream and its surrounding area such as debris, sediment, or vegetation. The City may also permit or require the applicant to restore a stream or its buffer through the addition of native plants and other habitat features. See also KZC 83.490(3), Trees in Critical Areas or Critical Area Buffers; and KZC 83.490(4), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Restoration may be required at any time that a condition detrimental to water quality or habitat exists. When the City requires stream rehabilitation, the mitigation plan and monitoring requirements of KZC 83.500(11) shall apply.~~

(Ord. 4491 § 11, 2015; Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

**83.520 Critical Areas: Geologically Hazardous Areas**

1. General – Uses, developments, activities and shoreline modifications within geologically hazardous areas must be limited to prevent significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions and ecosystem-wide processes.
2. Standards
  - a. New use, development or activities or creation of new lots that would cause foreseeable risk to people or improvement from geological conditions during the life of the use, development or activities shall not be allowed.
  - b. New use, development or activities that would require structural shoreline stabilization over the life of the development shall not be allowed, except for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations are available.
  - c. For protection of existing primary structures, stabilization structures or measures may be allowed when no alternatives, including relocation or reconstruction of existing structures, are found to be feasible.
  - d. Stabilization structures or measures must be consistent with KZC 83.300 for shoreline stabilization and with KZC 83.360 for no net loss of ecological function.
  - e. Uses, developments, activities and shoreline modifications within geologically hazardous areas must be consistent with Chapter 85 KZC.
  - f. In addition to the required information contained in Chapter 85 KZC, any required geotechnical report shall also contain any additional information specified under the definition of geotechnical report contained in KZC 83.80.

(Ord. 4251 § 3, 2010)

**83.530 Flood Hazard Reduction**

1. General – Uses, developments, activities and shoreline modifications within the channel migration zone must be limited to prevent interference with the process of channel migration that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with critical areas.
2. Standards
  - a. New uses, development or activities or expansions shall not be allowed when it would be reasonably foreseeable that the use, development or activities would require structural flood hazard reduction measures within the channel migration zone or floodway.
  - b. The uses and activities specifically identified in WAC 173-26-221(3)(c)(I) may be allowed within the channel migration zone if the City determines that they are appropriate and/or necessary.
  - c. Flood hazard measures shall not result in a net loss of ecological functions associated with critical areas. See KZC 83.360.
  - d. Flood hazard reduction measures shall only be allowed if it is determined that no other alternative is feasible to reduce flood hazard to existing development. Where feasible, nonstructural flood hazard reduction measures shall be utilized over structural measures.
  - e. When evaluating alternative flood control measures, structures in flood-prone areas shall be removed or relocated where feasible.
  - f. New structural flood hazard reduction measures may be allowed only when it can be demonstrated by scientific and engineering analysis that:
    - 1) They are necessary to protect existing development;

- 2) Nonstructural measures are not feasible;
  - 3) Impacts to ecological functions and priority species and habitats can be successfully mitigated to assure no net loss; and
  - 4) Vegetation retention is provided consistent with KZC 83.400, 83.500 and 83.510 as applicable.
- g. New structural flood hazard reduction measures shall be placed landward of wetlands and associated buffer areas, except for actions that increase ecological functions, such as wetland restoration.
- h. For new structural flood hazard reduction measures, such as dikes and levees, improved public access walkways shall be provided, unless public access improvements would cause unavoidable health and safety hazards to the public, inherent or unavoidable security problems, or ecological impacts that are significant and cannot be mitigated.
- i. Removal of gravel for flood management is not permitted, unless a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of ecological functions and is part of a comprehensive flood management solution.
- j. Where feasible, stream corridors shall be returned to more natural hydrological conditions, recognizing that seasonal flooding is an essential natural process. This includes removal of artificial restrictions to natural channel migration, restoration of off-channel hydrological connections and returning stream processes to a more natural state where appropriate and feasible.
- k. Associated wetland restorations must be consistent with KZC 83.490 and 83.500. Stream restoration or relocations must be consistent with KZC 83.490 and 83.510.
- l. The requirements of Chapter 21.56 KMC, Flood Damage Prevention, Chapter 15.52 KMC, Storm Water Drainage, and the National Flood Insurance Program must be met.

(Ord. 4251 § 3, 2010)

### **83.540 Archaeological and Historic Resources**

1. General – Uses, developments and activities on sites of historic or archeological significance or sites containing items of historic or archeological significance must not unreasonably disrupt or destroy the historic or archeological resource.
- 2 Standards
  - a. Permits submitted for land surface modification or development activity in areas documented by the Washington State Office of Archaeology and Historic Preservation to contain archaeological resources shall include a site inspection and a draft written report prepared by a qualified professional archaeologist, approved by the City, prior to the issuance of a permit. In addition, the archaeologist will provide copies of the draft report to the affected tribe(s) and the State Office of Archaeology and Historic Preservation.

After consultation with these agencies, the archaeologist shall provide a final report that includes any recommendations from the affected tribe(s) and the State Office of Archaeology and Historic Preservation on avoidance or mitigation of the proposed project's impacts. The Planning Official shall condition project approval, based on the final report from the archaeologist, to ensure that impacts to the site are avoided or minimized consistent with federal and state law.
  - b. Shoreline permits shall contain provisions that require developers to immediately stop work and notify the City if any potential archaeological resources are uncovered during land surface modification or development activity. In such cases, the developer shall be required to provide for a site inspection and evaluation by a qualified professional archaeologist, approved by the City, to ensure that all feasible valuable archaeological data is properly handled. The City shall subsequently notify the affected tribe and the State Office of Archaeology and Historic Preservation. Failure to comply with this requirement shall be considered a violation of the shoreline permit.

- c. If identified historical or archaeological resources are present, site planning and access to such areas shall be designed and managed to give maximum protection to the resource and surrounding environment.
- d. Interpretative signs, historical markers and other similar exhibits providing information about historical and archaeological features and natural areas shall be provided when appropriate.
- e. In the event that unforeseen factors constituting an emergency as defined in RCW 90.58.030 that necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from the permit requirement of these regulations. The City shall notify the State Department of Ecology, the State Attorney General's Office and the State Historic Preservation Office of such a waiver in a timely manner.
- f. Archaeological sites are subject to Chapter 27.44 RCW (Indian Graves and Records) and Chapter 27.53 RCW (Archaeological Sites and Records) and shall comply with Chapter 25-48 WAC or its successor as well as the provisions of this chapter.
- g. Proposed changes to historical properties that are registered on the State or National Historic Register are subject to review under the National and State Registers' review process.

(Ord. 4251 § 3, 2010)

### **83.550 Nonconformances**

1. General – This section establishes when and under what circumstances nonconforming aspects of a use or development must be brought into conformance with this chapter. The applicant needs to consult the provisions of this section if there is some aspect of the use or development on the subject property that is not permitted under this chapter.
2. When Conformance Is Required – If an aspect, element or activity of or on the subject property conformed to the applicable shoreline regulations in effect at the time the aspect, element or activity was constructed or initiated, that aspect, element or activity may continue and need not be brought into conformance with this chapter unless a provision of this section requires conformance.
3. Abatement of Nonconformance That Was Illegal When Initiated – Any nonconformance that was illegal when initiated must immediately be brought into conformance with this chapter. The City may, using the provisions of Chapter 173-27 WAC, abate any nonconformance that was illegal when initiated.
4. Special Provision for Damaged Improvements – Nonconforming structures that are damaged or destroyed by fire, explosion, flood, earthquake, storm or other casualty may be restored or replaced in kind, provided that, the following are met:
  - a. The permit process is commenced within 24 months of the date of such damage; and
  - b. The reconstruction does not expand, enlarge, or otherwise increase the nonconformity, except as provided for in this section; and
  - c. The reconstruction locates the structure in the same place where it was, or alternatively if moved, then the least environmentally damaging location relative to the shoreline and any critical areas; and
  - d. For existing residential structures built over the water, appropriate measures are taken to mitigate adverse impacts to the maximum extent feasible while still retaining the existing residential density, including but not limited to:
    - 1) Reducing the overwater footprint;
    - 2) Reducing the number or size of pilings to the extent allowed by site-specific engineering or design considerations;
    - 3) Softening existing hard shoreline stabilization measures to the extent allowed by site-specific characteristics;

- 4) Raising the height of the structure off the water, provided that the height of the existing building is not increased; and
  - 5) Incorporating grating into the rebuilt structure where feasible.
- e. For piers and docks, appropriate measures are taken to mitigate adverse impacts to the maximum extent feasible while still retaining the existing area and dimensions, if desired, including, but not limited to:
- 1) Meeting the standards for height of piers and diving boards, minimum water depth, location of ells, fingers and deck platforms and pilings and moorage piles in KZC 83.270 through 83.290; and
  - 2) Installing decking materials that allow a minimum of 40 percent light transmittance through the material.
- f. For hard shoreline stabilization measures, the applicant shall consult the provisions for emergency actions contained in KZC 83.560. If the work needed does not qualify as an emergency action under these provisions, then the applicant shall comply with the provisions for shoreline stabilization contained within KZC 83.300.

5. Certain Nonconformances Specifically Regulated

a. General

- 1) The provisions of this section specify when and under what circumstances certain nonconformances must be corrected. If a nonconformance must be corrected under this section, the applicant must submit all information necessary for the City to review the correction as part of the application for any development permit. In addition, the City will not permit occupancy until the correction is made.
- 2) If subsection (4) of this section applies to a specific nonconformance, then the provisions of this subsection do not apply to that same nonconformance.

b. Nonconforming Structure

- 1) A nonconforming structure that is moved ~~any distance~~ must be brought into conformance.
- 2) A nonconforming structure may be maintained, repaired, altered, remodeled and continued; provided, that a nonconforming structure shall not be enlarged, intensified, increased or altered in any way that increases the degree of the nonconformity, except as specifically permitted under this section.
- 3) Any structural alteration of a roof or exterior wall that does not comply with height, shoreline setback, or view corridor standards shall be required to be brought into conformance for the nonconforming height, setback or view corridor, except as provided otherwise in this chapter. Excepted from this subsection are the repair or maintenance of structural members, the alteration to existing windows and/or doors and the addition of new windows and/or doors, including sun roofs, for structures ~~landward of the OHWM~~, if the following criteria are met:
  - a) Floor area is not increased;
  - b) The location of an exterior wall is not modified in a manner that increases the degree of nonconformance; and
  - c) The cost of work on a nonconforming structure in any one-year period does not exceed 50 percent of the replacement cost of the structure.
- 4) The exterior walls and roofs of a nonconforming overwater covered moorage may be replaced with transparent or translucent material.

5) If the applicant is making an alteration to the primary structure, the cost of which exceeds 50 percent of the replacement cost of the structure or constructing a new primary structure, the following existing structures must be removed or otherwise brought into conformance:

- a) Nonconforming accessory structures located in the required shoreline setback, including decks, patios or similar improvements; and
- b) Additional pier or dock located on the subject property in the RSA or RMA zone; and
- c) Covered boat moorage structure located on the subject property in the RSA or RMA zone; except for boat canopies that comply with KZC 83.270(9).

6) If the applicant is making an addition to a pier or dock in the RSA or RMA zone, the following existing structures must be removed or otherwise brought into conformance:

- a) Additional pier or dock located on the subject property ~~more than 30 feet waterward of the OHWM.~~ The more non-conforming pier or dock must be removed; and
- b) Covered boat moorage structure located on the subject property ~~more than 30 feet waterward of the OHWM,~~ except for boat canopies that comply with KZC 83.270 for the RSA zone or KZC 83.280 for the RMA zone.

7) Increases in structure footprint outside of the shoreline setback or wetland or stream buffer shall be allowed, even if all or a portion of the previously approved footprint is within the shoreline setback, wetland or stream buffer.

8) Nonconforming structures that are expanded or enlarged within the shoreline setback must obtain a shoreline variance; provided, that a nonconforming detached dwelling unit use or a water-dependent, water-related, water-oriented use as defined in Chapter 83 KZC may be enlarged without a shoreline variance where the following provisions apply:

- a) The nonconforming structure must have been constructed prior to December 1, 2006, the date of the City's *Final Shoreline Analysis Report*.
- b) Before implementing this provision, the applicant shall determine whether the provisions of KZC 83.380 would allow for a reduced setback, based upon existing conditions on the subject property.
- c) The structure must be located landward of the OHWM.
- d) Any enlargement of the building footprint within the shoreline setback shall not exceed 10 percent of the gross floor area of the existing primary structure prior to the expansion. Other enlargements, such as upper floor additions, may be permitted if the addition is consistent with other provisions contained in this subsection.
- e) The enlargement shall not extend further waterward than the existing primary structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.190, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies, shall not be used in determining the most waterward location of the building (see Plate 44).
- f) The applicant must restore a portion of the shoreline setback area to offset the impact, such that the shoreline setback area will function at an equivalent or higher level than the existing conditions. The restoration plan shall be prepared by a qualified professional and shall be reviewed by the Planning Official and/or a consultant who may approve, approve with conditions, or deny the request.

If the proposal is consistent with the standards provided in this subsection, the Planning Official shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the proposal is denied, the applicant shall be informed of the



deficiencies that caused its disapproval so as to provide guidance for its revision and resubmittal. The cost of producing and implementing the restoration plan and the review by City staff and/or a consultant shall be borne by the applicant. Examples include, but are not limited to:

- 1) Installation of additional native vegetation within the shoreline setback that would otherwise not be required under this chapter. At a minimum, the area of shoreline setback restoration and/or enhancement shall be equivalent to the area impacted by the improvement.
  - 2) Removal of an existing hard shoreline stabilization structure covering at least 15 linear feet of the lake frontage that is located at, below, or within five (5) feet landward of the OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat.
  - 3) Setting back hard shoreline stabilization structures or portions of hard shoreline stabilization structures from the OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography and beach/substrate composition.
  - 4) Other shoreline restoration projects either on-site or off-site within the City's shoreline jurisdiction area that are demonstrated to result in an improvement to existing shoreline ecological functions and processes.
- g) The applicant must comply with the best management practices contained in KZC 83.480 addressing the use of fertilizer, herbicides and pesticides as needed to protect lake water quality.
- h) The applicant shall use "fully shielded cut off" light fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and the lake, and direct the light toward the ground for any exterior light sources located on any facades with exterior light sources that are directed towards the lake or visible from the lake.
- i) The remodel or expansion will not cause adverse impacts to shoreline ecological functions and/or processes as described in KZC 83.360.
- j) The provision contained in subsection (5)(b)(5) of this section shall only be used once within any 5-year period.
- 9) A nonconforming detached dwelling unit that is located on a lot that has less than 3,000 square feet of building area lying landward of the required shoreline setback and upland of required wetland or stream buffers may be rebuilt or otherwise replaced within the shoreline setback and required wetland or stream buffer without a shoreline variance, provided the following standards are met:
- a) The structure must be located landward of the OHWM.
  - b) The size of the building footprint shall not be increased, and the reconstructed structure shall not extend further waterward than the existing primary residential structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.190, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies, shall not be used in determining the most waterward location of the building (see Plate 44).
  - c) The reconstruction does not expand, enlarge, or otherwise increase the nonconformity.
  - d) The reconstruction locates the structure in the least environmentally damaging location relative to the shoreline and the critical areas.
  - e) The structure must comply with any requirements of this chapter, zoning, building, or fire codes in effect when the structure is built, other than allowed in this subsection.

10) A primary structure that does not conform to the required shoreline setback and is located on a lot that has less than 3,000 square feet of building area lying landward of the shoreline setback, not including the area located within the required side yard setbacks and up to 10 feet of a required front yard, may be rebuilt or otherwise replaced in its current location within the shoreline setback, provided the following standards are met:

- a) The structure must be located landward of the OHWM.
- b) The size of the building footprint shall not be increased, and the reconstructed structure shall not extend further waterward than the existing primary structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.190, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies, shall not be used in determining the most waterward location of the building (see Plate 44).
- c) The reconstruction does not expand, enlarge, or otherwise increase the nonconformity.
- d) The structure must comply with any requirements of this chapter, zoning, building, or fire codes in effect when the structure is built, other than allowed in this subsection.

c. Nonconforming Use

- 1) A nonconforming use may be continued by successive owners or tenants.
- 2) Any nonconforming use, except for a detached dwelling unit, must be brought into conformance or discontinued if:
  - a) The applicant is making an alteration that increases the extent of the nonconformity, such as increasing the gross floor area of any structure that houses or supports the nonconforming use; or
  - b) The nonconforming use has ceased for 90 or more consecutive days. It shall not be necessary to show that the owner of the property intends to abandon such nonconforming use in order for the nonconforming rights to expire. Water-dependent uses should not be considered discontinued when they are inactive due to dormancy, or where the use includes phased or rotational operations as part of typical operations; or
  - c) The nonconforming use is replaced by another use. The City may allow a change from one (1) nonconforming use to another such use if, through a shoreline conditional use process, the City determines that the proposed new use will comply with the following standards:
    - 1) The proposed use will be consistent with the policies and provisions of the Act and this chapter and is compatible with the uses in the area as the preexisting use;
    - 2) The use or activity is not enlarged, intensified, increased or altered in a manner that increases the extent of the nonconformity;
    - 3) The structure(s) associated with the nonconforming use shall not be expanded in a manner that increases the extent of the nonconformity, including encroachment into areas, such as setbacks, and any wetlands, streams and/or associated buffers established by this chapter, where new structures, development or use would not be allowed;
    - 4) The change in use will not create adverse impacts to shoreline ecological functions and/or processes as described in KZC 83.360; and
    - 5) Uses that are specifically prohibited or that would thwart the intent of the Act or this chapter shall not be authorized.

d. Nonconforming Wetland or Stream Buffer

- 1) If existing structures or other improvements are located within the wetland, stream or associated buffers, these structures and improvements must be brought into conformance if the applicant is making an alteration, change or any other work on the subject property in a consecutive 12-month period and the cost of the alteration, change or work exceeds 50 percent of the replacement cost of all existing structures and improvements on the subject property.
  - 2) If the cost threshold of subsection (5)(d)(1) of this section is not exceeded, the alterations or changes may occur provided that the alterations or changes comply with this code and no exterior alterations or changes are made to the nonconforming portion of the structure or improvement, unless otherwise authorized by this chapter.
- e. Nonconforming Lot Size – An undeveloped lot, tract, parcel, site or division which was created or segregated pursuant to all applicable laws, ordinances and regulations in effect at the time, but that is nonconforming as to the present lot size or density standards, may be developed so long as such development conforms to other requirements of this chapter and the Act.
- f. Nonconforming Public Pedestrian Walkway
- 1) If a previously installed public shoreline access walkway is subsequently found not installed to the property line, the walkway shall be extended to the property line consistent with conditions established in the original permit. The City can require the walkway to be extended with or without a building permit proposal.
  - 2) If a previously installed shoreline access walkway was subsequently found to have vegetation, fencing, other improvements or accessory structures installed that block connection to an adjacent shoreline access walkway, the blockage shall be removed. The City can require the block connection removed with or without a building permit proposal.
  - 3) Nonconforming shoreline pedestrian access walkways that were legally created shall not be required to comply with the dimensional standards or setback standards of this chapter.
  - 4) The shoreline public access walkway requirements established in this chapter must be brought into conformance as much as is feasible, based on available land area, if the applicant completes an alteration to all primary habitable structure(s) in shorelines jurisdiction, the cost of which exceeds 50 percent of the replacement cost of all structures and improvements on the subject property.
- g. Nonconforming Shoreline Setback Vegetation – The vegetation requirements of this chapter must conform as much as is feasible, based on available land area, in either of the following situations:
- 1) An increase of at least 10 percent in gross floor area of any structure located in shorelines jurisdiction, excluding detached dwelling unit and public park uses; or
  - 2) An alteration to any structure(s) in shorelines jurisdiction, the cost of which exceeds 50 percent of the replacement cost of all structures on the subject property.
- h. Nonconforming Lighting – Exterior lighting must be brought into compliance with the requirements of this chapter under the following circumstances:
- 1) The shielding requirements of KZC 83.470 shall be met when any nonconforming light fixture is replaced or moved.
  - 2) All other requirements of KZC 83.470 shall be met when there is an increase in gross floor area of more than 50 percent of the primary structures on the subject property.
- i. Prior Approval of Shoreline Variance – A structure for which a shoreline variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.

j. Prior Approval of Shoreline Conditional Use – A use that is listed in this chapter as a conditional use, but existed prior to adoption of this chapter or any relevant amendment and for which a conditional use permit has not been obtained shall be considered a nonconforming use.

k. Any Other Nonconformance – If any nonconformance exists on the subject property, other than as specifically listed in the prior subsections of this section, these must be brought into conformance if:

- 1) The applicant is making any alteration or change or doing any other work in a consecutive 12-month period to an improvement that is nonconforming or houses, supports or is supported by the nonconformance, and the cost of the alteration, change or other work exceeds 50 percent of the replacement cost of that improvement; or
- 2) The use on the subject property is changed and this chapter establishes more stringent or different standards or requirements for the nonconforming aspect of the new use than this code establishes for the former use.

Replacement costs shall not include costs relating to nonstructural interior elements, such as but not limited to appliances, heating and cooling systems, electrical systems, and interior finishes.

(Ord. 4302 § 3, 2011; Ord. 4251 § 3, 2010)

### **83.560 Emergency Actions**

1. When Allowed – Emergency actions are those that pose an unanticipated and imminent threat to public health, safety, or the environment and that require immediate action or within a time too short to allow full compliance with the provisions of this chapter.

#### **2. Standards**

a. Emergency actions shall meet the following standards:

- 1) Use reasonable methods to address the emergency;
- 2) Be designed to have the least possible impacts on shoreline ecological functions and processes; and
- 3) Be designed to comply with the provisions of this chapter, to the extent feasible.

b. Notice

1) The party undertaking the emergency action shall notify the Planning and Building Department of the existence of the emergency and emergency action(s) within two (2) working days following commencement of the emergency action.

2) Within seven (7) days following completion of emergency activity, the party shall provide the Planning and Building Department a written description of the work undertaken, site plan, description of pre-emergency conditions and other information requested by the City to determine whether the action was permitted within the scope of an emergency action.

c. Decision

1) The Planning Official shall evaluate the action for consistency with the provisions contained in WAC 173-27-040(2)(d).

2) The Planning Official shall determine whether the action taken, or any part of the action taken, was within the scope of the emergency actions allowed in this section. The Planning Official may require mitigation for impacts to shoreline ecological functions.

3) If the Planning Official determines that the emergency action was not warranted, he or she may require that the party obtain a permit and/or require remediation of or mitigation for the actions taken.

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<sup>1</sup>Department of Ecology approval: 7/26/10.

## Chapter 141 – SHORELINE ADMINISTRATION

### 141.10 User Guide

No change to section

### 141.20 Administrative Responsibilities in General

No change to section

### 141.30 Review Required

1. The Shoreline Management Act (SMA) establishes three types of shoreline permits: substantial development permit, conditional use permit, and variance permit. Proposals for development and activities within shoreline jurisdiction may require more than one type of permit – or none.

Substantial development permits (SDPs) are required for all developments (unless specifically exempt under 173-27-040) that meet the legal definition of substantial development under WAC 90.58.030.

Conditional use permits (CUPs) allow greater flexibility in applying use regulations of a Shoreline Master Program. A CUP is needed if a proposed use is listed as a conditional use in a shoreline environment designation, or if the SMP does not address the use. A CUP must meet the CUP criteria found in WAC 173-27-160.

Variance permits are used to allow a project to deviate from an SMP's dimensional standards (e.g., setback, buffers, height, or lot coverage requirements). A variance proposal must meet variance criteria found in WAC 173-27-170.

12. Within the shoreline jurisdiction, as described in KZC 83.90, development shall be allowed only as authorized in a shoreline substantial [development permit](#), shoreline conditional use permit or shoreline variance permit, unless specifically exempted from obtaining such a permit under KZC 141.40. [A development that is exempt from a permit under Chapter 83 KZC may still need to obtain other development permits.](#)

23. Chapter 83 KZC specifies which permit is required. Enforcement action by the City or Department of Ecology may be taken whenever a [person](#) has violated any provision of the [Shoreline Management Act](#) or any City of Kirkland [shoreline master program](#) provision, or other regulation promulgated under the [Shoreline Management Act](#). Procedures for enforcement action and penalties shall be as specified in WAC [173-27-240](#) through [173-27-310](#), which are hereby adopted by this reference.

34. Where a proposed [development activity](#) encompasses shoreline and non-shoreline areas, a shoreline substantial [development permit](#) or other required permit must be obtained before

any part of the development, even the portion of the [development activity](#) that is entirely confined to ~~the upland Areas~~[areas outside of shorelines jurisdiction](#), can proceed.

#### **141.40 Exemption from Permit Requirements**

1. General – Proposals identified under WAC [173-27-040](#) are exempt from obtaining a shoreline substantial [development permit](#); however, a shoreline variance or shoreline conditional use may still be required. Proposals that are not permitted under the provisions of Chapter [83](#) KZC shall not be allowed under an exemption. Applicants shall have the burden to demonstrate that the proposal complies with the requirements for the exemption sought as described under WAC [173-27-040](#). A proposal that does not qualify as an exemption may still apply for a shoreline substantial [development permit](#). [Applicants also have the burden of proof to show that exempt proposals meet the applicable standards in Chapter 83 KZC.](#)

2. Special Provisions – The following provides additional clarification on the application of the exemptions listed in WAC [173-27-040](#):

a. Residential Appurtenances

1) Normal appurtenances to a [single-family residence](#), referred to in Chapter [83](#) KZC as a [detached dwelling unit](#) on one (1) lot, are included in the permit exemption provided in WAC [173-27-040](#)(2)(g). For the purposes of interpreting this provision, normal appurtenances shall include those listed under WAC [173-14-040](#)(2)(g) as well as tool sheds, greenhouses, swimming pools, spas, [accessory dwelling units](#) and other [accessory](#) structures common to a [single-family residence](#) located [landward](#) of the OHWM and the perimeter of a [wetland](#).

2) Normal appurtenant structures to a [single-family residence](#), referred to in Chapter [83](#) KZC as a [detached dwelling unit](#) on one (1) lot, are included in the permit exemption provided in WAC [173-27-040](#)(2)(c) for structural and nonstructural shoreline stabilization measures. For the purposes of interpreting this provision, normal appurtenant shall be limited to the structures listed under WAC [173-14-040](#)(2)(g).

b. Normal Maintenance or Repair of Existing Structures or Developments – Normal maintenance or repair of existing structures or developments, including some replacement of existing structures, is included in the permit exemption provided in WAC [173-27-040](#)(2)(b). For the purposes of interpreting this provision, the following replacement activities shall not be considered a substantial development:

1) Replacement of an existing hard structural shoreline stabilization measure with a soft shoreline stabilization measure consistent with the provisions contained in KZC [83.300](#).

2) Replacement of pier or dock materials consistent with the provisions contained in KZC [83.270](#) through [83.290](#).

#### **141.45 Developments not required to obtain shoreline permits or local reviews**



1. Requirements to obtain a substantial development permit, conditional use permit, variance, letter of exemption, or other review to implement the Shoreline Management Act do not apply to the following:

a. Remedial actions. Pursuant to RCW 90.58.355, any person conducting a remedial action at a facility pursuant to a consent decree, order, or agreed order issued pursuant to chapter 70.105D RCW, or to the department of ecology when it conducts a remedial action under chapter 70.105D RCW.

b. Boatyard improvements to meet NPDES permit requirements. Pursuant to RCW 90.58.355, any person installing site improvements for storm water treatment in an existing boatyard facility to meet requirements of a national pollutant discharge elimination system storm water general permit.

c. WSDOT facility maintenance and safety improvements. Pursuant to RCW 90.58.356, Washington State Department of Transportation projects and activities meeting the conditions of RCW 90.58.356 are not required to obtain a substantial development permit, conditional use permit, variance, letter of exemption, or other local review.

d. Projects consistent with an environmental excellence program agreement pursuant to RCW 90.58.045.

e. Projects authorized through the Energy Facility Site Evaluation Council process, pursuant to chapter 80.50 RCW.

## **141.50 Pre-Submittal**

No change to section

## **141.60 Applications**

1. Who May Apply – Any [person](#) may, personally or through an agent, apply for a decision regarding property he/she owns-, or primary proponent of a project under WAC 173-27-180(1).

2. How to Apply – The applicant shall file the following information with the Planning and Building Department:

a. A complete application, with supporting affidavits, on forms provided by the Planning and Building Department. Alternatively, the applicant may use the joint aquatic resources permit application form;

b. Any information or material that is specified in the provisions of Chapter [83](#) KZC; and

c. Any additional information or material that the [Planning Official](#) specifies at the pre-submittal meeting.

3. Fee – The applicant shall submit the fee established by ordinance with the application.

### **141.70 Procedures**

#### **1. Substantial Development Permit**

##### **a. General**

- 1) Applications for a shoreline substantial development permit shall follow the procedures for a Process I permit review pursuant to Chapter 145 KZC, except as otherwise provided in this section.
- 2) If the proposal that requires a substantial development permit is part of a proposal that requires additional approval through Process IIA or Process IIB under Chapter 150 KZC or Chapter 152 KZC, respectively, the entire proposal will be decided upon using that other process.
- 3) If the proposal that requires a substantial development permit is part of a proposal that requires additional approval through the Design Review Board (DRB) under Chapter 142 KZC, the design review proceedings before the DRB shall be conducted in accordance with Chapter 142 KZC.

##### **b. Notice of Application and Comment Period**

- 1) In addition to the notice of application content established in Chapter 145 KZC, notice of applications for shoreline substantial development permits must also contain the information required under WAC 173-27-110.
- 2) The minimum notice of application comment period for shoreline substantial development permits shall be no fewer than 30 days. However, the minimum comment period for applications for shoreline substantial development permits for limited utility extensions and bulkheads, as described by WAC 173-27-120, shall be 20 days.

##### **c. Burden of Proof**

- 1) WAC 173-27-140 establishes general review criteria that must be met.
- 2) WAC 173-27-150 establishes that a substantial development permit may only be granted when the proposed development is consistent with all of the following:
  - a) The policies and procedures of the Shoreline Management Act;
  - b) The provisions of Chapter 173-27 WAC;
  - c) Chapter 83 KZC.

##### **d. Decision**

1) ~~At the time of a final decision~~After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes, the Planning Official shall mail a copy of the decision, staff advisory report and permit data transmittal sheet to the applicant and Department of Ecology, pursuant to RCW 90.58.140 and WAC 173-27-130. The permit decision shall be sent to the Department of Ecology by return receipt requested mail. The permit shall state that construction pursuant to a permit shall not begin or be authorized until 21 days from the date that the Department of Ecology received the permit decision from the City as provided in RCW 90.58.140; or until all review proceedings are terminated if the proceedings were initiated within 21 days from the date of filing as defined in RCW 90.58.140. "Date of filing" is the date that the Department of Ecology received the City's permit decision. The Department of Ecology must notify the City and the applicant of the actual date of filing.

2) When the City issues a permit decision on a substantial development permit along with a shoreline conditional use permit and/or a shoreline variance, the date of filing is the ~~postmarked date that the City mails the permit decision to the~~Department of Ecology transmits its decision as provided in WAC 173-27-200.

3) An appeal of a shoreline substantial development permit shall be to the State Shorelines Hearings Board and shall be filed within 21 days of the date of filing of the City's permit decision to the Department of Ecology as set forth in RCW 90.58.180.

e. Effect of Decision – For shoreline substantial development permits, no final action or construction shall be taken until the termination of all review proceedings initiated within 21 days after the filing date which is the date that the Department of Ecology received the permit decision from the City or unless otherwise noted in this section.

f. Complete Compliance Required

1) General – Except as specified in subsection (2) of this section, the applicant must comply with all aspects, including conditions and restrictions, of an approval granted under this chapter authorized by that approval.

2) Exception – Subsequent Modification – WAC 173-27-100 establishes the procedure and criteria under which the City may approve a revision to a permit issued under the Shoreline Management Act and the shoreline master program.

g. Time Limits – Construction and activities authorized by a shoreline substantial development permit are subject to the time limitations of WAC 173-27-090.

2. Conditional Use Permits

a. General – Applications for a shoreline conditional use permit shall follow the procedures for a Process IIA permit review pursuant to Chapter 150 KZC, except as otherwise provided in KZC Chapters 125 PUD, 130 Rezones and 15-65 for Master Plans~~in this section~~. If the proposal that requires a conditional use permit is part of a proposal that requires additional approval through a Process IIB, the entire proposal will be decided upon using that process.

b. Notice of Application and Comment Period

1) In addition to the notice of application content established in Chapter [150](#) KZC, notice of applications for shoreline conditional use permits must also contain the information required under WAC [173-27-110](#).

2) The minimum notice of application comment period for shoreline conditional use permits shall be no fewer than 30 days.

c. Notice of Hearing – The [Planning Official](#) shall [distribute](#) notice of the public hearing at least 15 calendar days before the public hearing.

d. Burden of Proof

1) WAC [173-27-140](#) establishes general review criteria that must be met.

2) WAC [173-27-160](#) establishes criteria that must be met for a conditional use permit to be granted.

3) In addition, the City will not issue a conditional use permit for a use which is not listed as allowable in the [shoreline master program](#) unless the applicant can demonstrate that the proposed use has impacts on nearby uses and the environment essentially the same as the impacts that would result from a use allowed by the [shoreline master program](#) in that shoreline environment.

e. Decision

1) ~~Once the City has approved~~[After all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes,](#) a conditional use permit it will be forwarded to the State Department of Ecology for its review and approval/disapproval jurisdiction under WAC [173-27-200](#).

2) The permit shall state that construction pursuant to a permit shall not begin or be authorized until 21 days from the date that the Department of Ecology transmits its decision as provided in Chapter [173-200](#) WAC; or until all review proceedings are terminated if the proceedings were initiated within 21 days from the filing date as defined in RCW [90.58.140](#).

3) Appeals of a shoreline conditional use permit shall be to the State Shoreline Hearings Board and shall be filed within 21 days of the filing date which is the postmarked date that the City mailed the permit decision to the Department of Ecology, as set forth in RCW [90.58.180](#).

f. Effect of Decision – For shoreline conditional use permits, no final action or construction shall be taken until the termination of all review proceedings initiated within 21 days from the date Department of Ecology transmits its decision on the shoreline conditional use permit.

g. Complete Compliance Required

1) General – Except as specified in subsection (2)(g)(2) of this section, the applicant must comply with all aspects, including conditions and restrictions, of an approval granted under this chapter in order to do everything authorized by that approval.

2) Exception – Subsequent Modification – WAC [173-27-100](#) establishes the procedure and criteria under which the City may approve a revision to a permit issued under the [Shoreline Management Act](#) and this chapter.

h. Time Limits – Construction and activities authorized by a shoreline conditional use permit are subject to the time limitations under WAC [173-27-090](#).

### 3. Variances

a. General – Applications for a shoreline variance permit shall follow the procedures for a Process IIA permit review pursuant to Chapter [150](#) KZC, except as otherwise provided in this section. If the proposal that requires a shoreline variance is part of a proposal that requires additional approval through a Process IIB, the entire proposal will be decided upon using that other process.

#### b. Notice of Application and Comment Period

1) In addition to the notice of application content established in Chapter [150](#) KZC, notice of applications for shoreline variance permits must also contain the information required under WAC [173-27-110](#).

2) The minimum notice of application comment period for shoreline variance permits shall be no fewer than 30 days.

c. Notice of Hearing – The [Planning Official](#) shall [distribute](#) notice of the public hearing at least 15 calendar days before the public hearing.

#### d. Burden of Proof

1) WAC [173-27-140](#) establishes general review criteria that must be met

2) WAC [173-27-170](#) establishes criteria that must be met for a variance permit to be granted.

#### e. Decision

1) Approval by Department of Ecology. Once the City has approved a variance permit [and after all local permit administrative appeals or reconsideration periods are complete and the permit documents are amended to incorporate any resulting changes](#), it will be forwarded to the State Department of Ecology for its review and approval/disapproval jurisdiction under WAC [173-27-200](#).

2) The permit shall state that construction pursuant to a permit shall not begin or be authorized until 21 days from the date that the Department of Ecology transmits its decision as

provided in WAC [173-27-200](#); or until all review proceedings are terminated if the proceedings were initiated within 21 days from the filing date as defined in RCW [90.58.140](#).

3) Appeals of a shoreline variance permit shall be to the State Shoreline Hearings Board and shall be filed within 21 days of the filing date which is the ~~postmarked~~ date that the ~~City mailed the permit decision to the~~ Department of Ecology transmits its decision, as set forth in RCW [90.58.180](#).

f. Effect of Decision – For shoreline variance permits, no final action or construction shall be taken until the termination of all review proceedings initiated within 21 days from the date the Department of Ecology transmits its decision on the shoreline variance permit.

g. Complete Compliance Required

1) General – Except as specified in subsection (2) of this section, the applicant must comply with all aspects, including conditions and restrictions, of an approval granted under this chapter as authorized by that approval.

2) Exception – Subsequent Modification – WAC [173-27-100](#) establishes the procedure and criteria under which the City may approve a revision to a permit issued under the [Shoreline Management Act](#) and the [shoreline master program](#).

h. Time Limits – Construction and activities authorized by a shoreline variance permit are subject to the time limitations under WAC [173-27-090](#).

#### [45](#). Request for Relief from Standards

a. General – When shoreline stabilization measures intended to improve ecological functions result in shifting the OHWM landward of the pre-modification location, the City may propose to grant relief from additional or more restrictive standards and use regulations resulting from the shift in OHWM, such as but not limited to an increase in shoreline jurisdiction, shoreline setbacks, or lot coverage. Relief may apply to both the subject property and upland lots.

b. Burden of Proof – Relief may be granted when:

1) The proposed relief is the minimum necessary to relieve the hardship;

2) The restoration project will result in a net environmental benefit; and

3) The proposed relief is consistent with the objectives of the City's restoration plan and [shoreline master program](#).

c. Decision – Approval by Department of Ecology – Once the City has approved a permit it will be forwarded to the State Department of Ecology for its review and approval/disapproval. The application review must occur during the Department of Ecology's normal review of a shoreline substantial [development permit](#), conditional use permit, or variance. If a permit is not required for the restoration project, the City shall submit separate application and necessary supporting information to the Department of Ecology.







## **XVI. Shoreline Area**

**Department of Ecology Approval: July 26, 2010**



## A. Introduction

The City of Kirkland's Shoreline Master Program consists of shoreline goals and policies contained in this chapter, shoreline regulations contained in Chapters 83 and 141 KZC and the Kirkland Shoreline Restoration Plan. The program is adopted under the authority of Chapter 90.58 RCW and Chapter 173-26 WAC.

### *Statutory Framework*

The City of Kirkland manages the shoreline environment through implementation of the Shoreline Master Program. The Washington State Shoreline Management Act (SMA) provides guidance and prescribes the requirements for locally adopted shoreline master programs. The goal of the SMA, passed by the Legislature in 1971 and adopted by the public in a 1972 referendum, is to "prevent the inherent harm in an uncoordinated and piecemeal development of the State's shorelines." The SMA establishes a broad policy giving preferences to uses that:

- Protect shoreline natural resources, including water quality, vegetation, and fish and wildlife habitat;
- Depend on the proximity to the shoreline (i.e., "water-dependent uses");
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

The SMA establishes a balance of authority between local and State government. Under the SMA, Kirkland adopts a shoreline master program that is based on State guidelines but tailored to the specific needs of the community. The program represents a comprehensive vision of how shoreline areas will be used and developed over time.

The Department of Ecology has issued State guidelines for shoreline master programs in Chapter 173-26 WAC. The guidelines are intended to assist local governments in developing master programs, which must be accepted and approved by the Department of Ecology as meeting the policy objectives of the SMA established under RCW 90.58.020 as well as the criteria for State review of local master programs under RCW 90.58.090.

### *Vision*

The City of Kirkland's identity is strongly influenced and defined by its waterfront setting. Views of Lake Washington give Kirkland its sense of place and the City's integrated network of trails, parks, and open spaces along the shoreline provide abundant opportunities for public access to the shoreline. The City's waterfront parks provide places and host events where people can gather and interact. Kirkland's shoreline commercial districts also provide opportunities for residents and visitors to enjoy the City's unique natural setting along the shoreline. The waterfront provides many varied recreational opportunities to meet the needs of Kirkland citizens and provides a gateway to the City. It also provides vital habitat for fish and wildlife and the natural systems within the shoreline serve many essential biological, hydrological and geological functions.

The shoreline zone is one of the most valuable and fragile of Kirkland's natural resources and, as a result, the utilization, protection, restoration, and preservation of the shoreline zone must be carefully considered.

The City developed its first Shoreline Master Program in 1974 as a component of the Comprehensive Plan. Key considerations within this plan and subsequent amendments included conservation, public access to the shoreline, and the guidance for water-oriented recreational uses to locate along the Kirkland shoreline. These initial policy objectives are reflected in today's protection of the City's significant natural areas as open space, as well as the extensive shoreline trail system and network of shoreline parks which have been established over time.

Over the significant time that has spanned since the original adoption of the City's first Shoreline Master Program, there have been substantial changes to the lakefront environment. Industrial uses, such as the shipyard previously located at Carillon Point, have left Kirkland's shoreline. The City has added significant publicly owned properties to our waterfront park system, most significantly the Yarrow Bay wetlands, Juanita Bay Park, Juanita Beach Park, and [O.O. Denny Park-David E. Brink Park](#). Water quality within Lake Washington, once severely impacted by nutrient loading from sewage, has remarkably improved since regional wastewater treatment plants were constructed and the final plant discharging directly into the lake was closed in 1967.

The lake environment has also been impacted by new challenges. The shoreline character has continued to change over time, as additional piers and bulkheads have been built, contributing to a loss of woody debris and other complex habitat features along the shoreline. Impervious surfaces have increased both within the shoreline area and in adjacent watersheds and this, together with consequent reduction in soil infiltration, has been correlated with increased velocity, volume and frequency of surface water flows. These and other changes have impacted the habitat for salmonids. In 1999, Chinook salmon and bull trout were listed as threatened under the Federal Endangered Species Act. The region's response to this listing has resulted in new scientific data and research that has improved our understanding of shoreline ecological functions and their value in terms of fish and wildlife, water quality, and human health.

To address these changes, comply with the mandates of the Shoreline Management Act, and enable the City to plan for emerging issues, ~~in 2008~~ the City ~~did initiated~~ an extensive update of its Shoreline Master Program ~~that was adopted in 2010~~. The ~~new~~ program responds to current conditions and the community's vision for the future.

In updating the program, the City's primary objectives were to:

- Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
- Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
- Protect the City's investments as well as those of property owners along and near the shoreline.
- Have an updated Shoreline Master Program (SMP) that is supported by Kirkland's elected officials, citizens, property owners and businesses, the State of Washington, and other key groups with an interest in the shoreline.
- Efficiently achieve the SMP mandates of the State.

The Shoreline Master Program was again updated in 2019 through a periodic review process.

The City of Kirkland, through adoption of the Shoreline Master Program update, intends to implement the Washington State Shoreline Management Act (Chapter 90.58 RCW) and its policies, including protecting the State's shorelines and their associated natural resources, planning for and fostering all reasonable and appropriate uses, and providing opportunities for the general public to have access to and enjoy shorelines.

The City of Kirkland's Shoreline Master Program represents the City's participation in a coordinated planning effort to protect the public interest associated with the shorelines of the State while, at the same time, recognizing and protecting private property rights consistent with the public interest. The program preserves the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the State and protects the functions of shorelines so that, at a minimum, the City achieves a 'no net loss' of ecological functions, as evaluated under the Final Shoreline Analysis Report issued in December 2006. The Program also promotes restoration of ecological functions where such functions are found to have been impaired, enabling functions to improve over time.

The goals and policies of the SMA constitute one of the goals for growth management as set forth in RCW 36.70A.020 and, as a result, the goals and policies of this SMP serve as an element of Kirkland's Comprehensive Plan and should be consistent with other elements of the Comprehensive Plan. In addition, other portions of the SMP adopted under Chapter 90.58 RCW, including use regulations, are considered a part of the City's development regulations.

### *Organization*

The policies are grouped under eight sections:

- Shoreline Land Use and Activities
- Shoreline Environment
- Parks, Open Space and Recreation

- Shoreline Transportation
- Shoreline Utilities
- Shoreline Design
- Shoreline Archaeological, Historic and Cultural Resources
- Restoration Planning

The Land Use section works together with other policies contained in this chapter of the Comprehensive Plan. The Land Use section addresses the general distribution and location of shoreline uses, the Shoreline Parks, Open Space and Recreation section more specifically addresses issues of public park operations and maintenance and standards for private shoreline recreation uses and modifications. The Environment section more specifically addresses shoreline critical areas, water quality, vegetation, and shoreline modifications such as filling and dredging. The Transportation section addresses both public access and circulation within the shoreline area. The Utilities section addresses utilities within the shoreline, while the Design section addresses public view corridors and designing for orientation to Lake Washington. The Archaeological, Historic and Cultural Resources section addresses identifying important sites and preventing destruction of the sites, and having educational projects and programs to appreciate the importance of the shoreline history. The Restoration section addresses the City's adopted Restoration Plan for restoring the shoreline areas to achieve net benefit in ecological conditions.

## **B. Shoreline Goals and Policies**

## 1. Shoreline Land Use and Activities

*Goal SA-1: Provide a high quality shoreline environment where:*

- (1) Natural systems are preserved.
- (2) Ecological functions of the shoreline are maintained and improved over time.
- (3) The public enjoys access to and views of the lake.
- (4) Recreational opportunities are abundant.

The Kirkland shoreline forms the western boundary of the City and encompasses ~~52,729 lineal feet (9.9 miles)~~ approximately 50,000 lineal feet (9.5 miles) of Lake Washington waterfront. A significant portion of the City's shoreline is area zoned or designated as park/open space. Approximately 43 percent of the area within the shoreline jurisdiction, or a total of 139.7 acres of the shoreline, is within areas designated as park or open space. Except for a few anomalies, the high-functioning portions of the shoreline have been appropriately designated and preserved within these areas. The City's extensive network of parks also provides the public with significant access opportunities throughout the City.

Much of the remaining shoreline is fully developed with single-family residential uses or areas of concentrated, compact development containing commercial, multifamily, or mixed uses. In general, this pattern of land use is stable and only minimal changes are anticipated in the planning horizon. Redevelopment on some properties may result in single-family residences converting over time to multifamily or with new commercial or mixed uses replacing existing commercial uses. Given the lack of existing vacant land (~~only nine percent of the land within the shoreline is vacant~~), and much of that is encumbered by critical sensitive areas, additional housing or commercial square footage within the shoreline area will come over time as redevelopment and additions occur to existing developed properties.

Management of the shoreline area will need to carefully balance and achieve both shoreline utilization and protection of ecological functions. To protect valuable shoreline resources, the Shoreline Master Program limits the extent and character of a number of land uses and activities. Shoreline policies allow for a broad range of uses within the shoreline, while establishing limits to protect these shoreline resources and adjacent uses.

Shoreline policies aimed at protecting the natural environment address issues at both a broader scale, focusing on natural systems, as well as at the scale of ecological functions, which are the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

Issues that must be addressed by the Shoreline Use section include:

- How to manage new growth and redevelopment to be sensitive to and not degrade habitat, ecological systems and other shoreline resources.
- How to foster those uses that are unique to or depend on the proximity to the shoreline or provide an opportunity for substantial numbers of the people to enjoy the shoreline.
- How to ensure that land uses and shoreline activities are designed and conducted to minimize damage to the ecology of the shorelines and/or interference with the public's use of the water and, where consistent with public access planning, provide opportunities for the general public to have access to the shorelines.
- How to protect the public right of navigation and ensure that uses minimize any interference with the public's use of the water.

*Policy SA-1.1: Allow for a diversity of appropriate uses within the shoreline area consistent with the varied character of the shorelines within the City.*



The City's shoreline area is a collection of varied neighborhoods and business districts, each containing their own distinctive character as well as biological and physical condition along the shoreline. Kirkland's shorelines contain valuable natural amenities, providing critical habitat for fish and wildlife within the Juanita Bay and Yarrow Bay wetlands, two high-functioning natural areas. The shoreline also contains portions of several business districts, each with its own distinctive identity, including the Central Business District, Juanita Business District, and Carillon Point. Medium to high density residential and commercial uses are located to the south of the Central Business District and west of Juanita Beach Park. The shoreline in these more urban areas is heavily altered with shoreline armoring, overwater coverage, and impervious areas. Single-family residential uses are prevalent in the area north of the Central Business District. The City also contains a system of waterfront parks, which provide a broad range of passive and active recreational activities and environmental protection.

*Policy SA-1.2: Preserve and enhance the natural and aesthetic quality of important shoreline areas while allowing for reasonable development to meet the needs of the City and its residents.*

These different and unique shoreline areas each contain qualities that contribute to Kirkland's shoreline identity, including waterfront orientation, shoreline public views and access, numerous and diverse recreational opportunities, abundant open space, natural habitat, and waterfront access trails. The Shoreline Master Program should seek to support these and other features which significantly contribute to the City's desired character along the shoreline.

*Policy SA-1.3: Maintain existing and foster new uses that are dependent upon or have a more direct relationship with the shoreline and Lake Washington.*



**Carillon Point Marina**

Certain shoreline uses are more dependent on or have a more direct relationship with the shoreline than others. The Shoreline Management Act requires that shoreline master programs give priority to:

- **Water-dependent uses.** A water-dependent use is dependent on the water by reason of the intrinsic nature of its operations, and cannot exist in any other location. Examples include swimming beaches, boat launches, boat piers, and marinas. Industrial water-dependent uses, such as ship building facilities, are not currently found nor are planned along the City's waterfront. The Kirkland waterfront contains several facilities that would be considered water-dependent uses. The City contains one public marina and several private marinas. Large private commercial marinas include Carillon Point Marina, Yarrow Bay Marina and Kirkland Homeport Marina. The Yarrow Bay Marina contains a retail fuel service facility for boats, while the tour boat operators working out of the City's public marina provide shoreline tours. The City should encourage these water-dependent uses to remain.
- **Water-related uses.** A water-related use is dependent on a shoreline location because it has a functional requirement associated with a waterfront location, such as the transport of goods by water, or uses that support water-dependent uses. Examples include boat sales and outfitters and manufacturers that transport goods by water. These uses are typically not located along Kirkland's shoreline, though the Yarrow Bay Marina contains a boat repair and service facility.

- Water-enjoyment uses. A water enjoyment use is a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use, or a use that draws substantial numbers of people to the shoreline and that provides opportunities, through its design, location or operation, for the public to enjoy the physical and aesthetic benefits of the shoreline. Examples include parks and trails, museums, restaurants, and aquariums. Water enjoyment uses such as restaurants, retail stores, and offices are the primary commercial use along Kirkland's shoreline.
- Single-family residential uses. There ~~are~~ is a single-family residential neighborhoods in the shoreline areas within the Market Neighborhood and the Finn Hill Neighborhood.
- Shoreline recreation. The shoreline contains an extensive network of open spaces and public parks along the shoreline, providing places for fishing, swimming, boating, wildlife viewing and other recreational and educational activities.

### *Shoreline Environment Designations*

*Goal SA-2: Provide a comprehensive shoreline environment designation system to categorize Kirkland's shorelines into similar shoreline areas to guide the use and management of these areas.*

Environment designations are analogous to zoning designations for areas under SMP jurisdiction. See Figure SA-1, Shoreline Environment Designations Map. Their intent is to encourage uses that will protect or enhance the current or desired character of a shoreline based on their physical, biological and development characteristics.

*Policy SA-2.1: Designate properties as Natural in order to protect and restore those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions that are sensitive to potential impacts from human use.*

This type of designation would be appropriate for associated wetlands in and adjacent to Juanita Bay Park, the Yarrow Bay wetlands complex, and the portion of Juanita Bay Park located within shoreline jurisdiction. The following management policies should guide development within these areas:

- a. Any use or development activity that would potentially degrade the ecological functions or significantly alter the natural character of the shoreline area should be severely limited or prohibited, as follows:
  - 1) Residential uses should be prohibited, except limited single-family residential development may be allowed as a conditional use if the density and intensity of such use is limited as necessary to protect ecological functions and be consistent with the purpose of the environment.
  - 2) Subdivision of the subject property as regulated under the provisions of KMC Title 22 should be prohibited.
  - 3) Commercial and industrial uses should be prohibited.
  - 4) Nonwater-oriented recreation should be prohibited.
  - 5) Roads, utility corridors, and parking areas that can be located outside of Natural designated shorelines should be prohibited unless no other feasible alternative exists. Roads, bridges and utilities that must cross a Natural designated shoreline should be processed through a Shoreline Conditional Use.
- b. Development activity in the natural environment should only be permitted when no suitable alternative site is available on the subject property outside of shoreline jurisdiction.
- c. Development, when feasible, should be designed and located to preclude the need for shoreline stabilization, flood control measures, native vegetation removal, or other shoreline modifications.
- d. Development activity or land surface modification that would reduce the capability of vegetation to perform normal ecological functions should be prohibited.

- e. Limited access may be permitted for scientific, historical, cultural, educational and low-intensity water-oriented recreational purposes, provided there are no significant adverse ecological impacts.

*Policy SA-2.2: Designate properties as Urban Conservancy to protect and restore ecological functions of open space ~~and critical areas, floodplain and other sensitive lands~~, while allowing a variety of compatible uses.*

This type of designation would be appropriate for many of the City's waterfront parks. The following management policies should guide development within these areas:

- a. Allowed uses should be those that preserve the natural character of the area and/or promote preservation and restoration within critical areas and public open spaces either directly or over the long term.
- b. Restoration of shoreline ecological functions should be a priority.
- c. Development, when feasible, should be designed and located to preclude the need for shoreline stabilization, flood control measures, native vegetation removal, or other shoreline modifications.
- d. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.
- e. Water-oriented uses should be given priority over nonwater-oriented uses. For shoreline areas adjacent to commercially navigable waters, water-dependent uses should be given highest priority.
- f. Commercial and industrial uses, other than limited commercial activities conducted accessory to a public park, should be prohibited.

*Policy SA-2.3: Designate properties as Residential – Low (L) to accommodate low-density residential development.*

This type of designation would be appropriate for single-family residential uses from one to nine dwelling units per acre for detached residential structures and one to seven dwelling units per acre for attached residential structures. The following management policies should guide development within these areas:

- a. Standards for density, setbacks, lot coverage limitations, shoreline setbacks, shoreline stabilization, vegetation conservation, critical area protection, and water quality should mitigate adverse impacts to maintain shoreline ecological functions, taking into account the following:
  - 1) The environmental limitations and sensitivity of the shoreline area;
  - 2) The level of infrastructure and services available; and
  - 3) Other Comprehensive Plan considerations.
- b. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.
- c. Industrial, commercial, multifamily and institutional uses, except for government facilities, should be prohibited.

*Policy SA-2.4: Designate properties as Residential – Medium/High (M/H) to accommodate medium and high-density residential development.*

This type of designation would be appropriate for detached, attached, or stacked residential uses of up to 15 or more dwelling units per acre south of the Downtown and 19 to 24 dwelling units per acre west of Juanita Beach Park. Additional density is permitted under certain provisions of the Zoning Code, such as planned unit development, affordable housing, low impact development and cottage housing.

The following management policies should guide development within these areas:

- a. Standards for density, setbacks, lot coverage limitations, shoreline setbacks, shoreline stabilization, vegetation conservation, critical area protection, and water quality should mitigate adverse impacts to maintain shoreline ecological functions, taking into account the following:
  - 1) The environmental limitations and sensitivity of the shoreline area;
  - 2) The level of infrastructure and services available; and
  - 3) Other Comprehensive Plan considerations.
- b. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.
- c. Visual and physical access should be implemented whenever feasible and adverse ecological impacts can be avoided. Continuous public access along the shoreline should be provided, preserved or enhanced.
- d. Industrial uses should be prohibited.
- e. Water-dependent recreational uses should be permitted.
- f. Limited water-oriented commercial uses which depend on or benefit from a shoreline location should also be permitted.
- g. Nonwater-oriented commercial uses should be prohibited, except for small-scale retail and service uses that provide primarily convenience retail sales and service to the surrounding residential neighborhood should be permitted along portions of the east side of Lake Washington Boulevard NE/Lake Street South.
- h. Institutional uses may be permitted in limited locations.

*Policy SA-2.5: Designate properties as Urban Mixed to provide for high-intensity land uses, including residential, commercial, recreational, transportation and mixed-use developments.*

This type of designation would be appropriate for areas which include or are planned for retail, office, and/or multifamily uses. The following management policies should guide development within these areas:

- a. Manage development so that it enhances and maintains the shorelines for a variety of urban uses, with priority given to water-dependent, water-related and water-enjoyment uses. Nonwater-oriented uses should not be allowed except as part of mixed-use developments, or in limited situations where they do not conflict with or limit opportunities for water-oriented uses or on sites where there is no direct access to the shoreline.
- b. Visual and physical access should be implemented whenever feasible and adverse ecological impacts can be avoided. Continuous public access along the shoreline should be provided, preserved or enhanced.
- c. Aesthetic objectives should be implemented by means such as sign control regulations, appropriate development siting, screening and architectural standards, and maintenance of natural vegetative buffers.

*Policy SA-2.6: Designate properties as Aquatic to protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark.*

This type of designation would be appropriate for lands waterward of the ordinary high water mark. The following management policies should guide development within these areas:

- a. Provisions for the management of the Aquatic environment should be directed towards maintaining and restoring shoreline ecological functions.
- b. Shoreline uses and modifications should be designed and managed to prevent degradation of water quality and alteration of natural hydrographic conditions.

- c. All developments and uses on navigable waters or their beds should be located and designed to minimize interference with surface navigation, to minimize adverse visual impacts, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration.
- d. New overwater structures for water-dependent uses and public access are permitted, provided they will not preclude attainment of ecological restoration.
- e. Public recreational uses of the water should be protected against competing uses that would interfere with these activities.
- f. Underwater pipelines and cables should not be permitted unless demonstrated that there is no feasible alternative location based on an analysis of technology and system efficiency, and that the adverse environmental impacts are not significant or can be shown to be less than the impact of upland alternatives.
- g. Existing residential uses located over the water and in the Aquatic environment may continue, but should not be enlarged or expanded.





*Goal SA-3: Locate, design and manage shoreline uses to prevent and, where possible, restore significant adverse impacts on water quality, fish and wildlife habitats, the environment and other uses.*

It is important that shoreline development be regulated to control pollution and prevention of damage to the natural environment. Without proper management, shoreline uses can cause significant damage to the shoreline area through cumulative impacts from shoreline armoring, stormwater runoff, introduction of pollutants, and vegetation modification and removal.

Given existing conditions, there is very little capacity for future development within the shoreline. However, it is anticipated that expansion, redevelopment or alteration to existing development will occur over time. With remodeling or replacement, opportunities exist to improve the shoreline environment. In particular, improvements to nearshore vegetation cover and reductions in impervious surface coverage are two key opportunity areas on private property to restore ecological function along the shoreline. Reduction or modification of shoreline armoring and reduction of overwater cover and in-water structures provide other opportunities.

*Policy SA-3.1: Establish development regulations that avoid, minimize and mitigate impacts to the ecological functions associated with the shoreline zone.*

In deciding whether to allow uses and activities in shoreline areas, the potential adverse impacts associated with uses or activities should be considered and avoided, where possible. This can be done by carefully selecting allowed uses, providing policies and standards to prevent or minimize adverse impacts, and carefully reviewing development proposals to prevent or minimize adverse impacts.

*Policy SA-3.2: Provide adequate setbacks and vegetative buffers from the water and ample open space and pervious areas to protect natural features and minimize use conflicts.*

The purpose of a setback is to minimize potential impacts of adjacent land uses on a natural feature, such as Lake Washington, and maximize the long-term viability of the natural feature. Setbacks perform a number of significant functions including reducing water temperature; filtering sediments and other contaminants from stormwater; reducing nutrient loads to lakes; stabilizing stream banks with vegetation; providing riparian wildlife habitat; maintaining and protecting fish habitats; forming aquatic food webs; and providing a visually appealing greenbelt and recreational opportunities.

Establishing the width of a setback so it is effective depends on the type and sensitivity of the natural feature and the expected impacts of surrounding land uses. In determining appropriate setbacks in the shoreline jurisdiction, the City should consider shoreline ecological functions as well as aesthetic issues.

*Policy SA-3.3: Require new development or redevelopment to include establishment or preservation of appropriate shoreline vegetation to contribute to the ecological functions of the shoreline area.*

Shoreline vegetation plays an important role in maintaining temperature, removing excessive nutrients, attenuating wave energy, removing sediment and stabilizing banks, and providing woody debris and other organic matter along Lake Washington.

The *Final WRIA 8 Chinook Salmon Conservation Plan* notes the importance of providing a vegetated riparian/lakeshore buffer and overhanging riparian vegetation to improve the habitat for juvenile Chinook salmon<sup>1</sup>. As a result, when substantial new upland development occurs, the on-site landscaping should be designed to incorporate native plant buffers along the shoreline. Proper plant selection and design should be done to ensure that views are not diminished.

*Policy SA-3.4: Incorporate low-impact development practices, where feasible, to reduce the amount of impervious surface area.*

Low-impact development strives to mimic nature by minimizing impervious surface, infiltrating surface water through biofiltration and bio-retention facilities, retaining contiguous forested areas and maintaining the character of the natural hydrologic cycle. Utilizing these practices can have many benefits, including improvement of water quality and reduction of stream and fish habitat impacts.



*Policy SA-3.5: Limit parking within the shoreline area.*

Facilities providing public parking are permitted within the shoreline area as needed to support adjoining water-oriented uses. Private parking facilities should be allowed only as necessary to support an authorized use. All parking facilities, wherever possible, should be located out of the shoreline area.

*Policy SA-3.6: Minimize the aesthetic impacts of parking facilities.*

Parking areas should be placed, screened, and buffered to mitigate impacts through use of design techniques, such as location, lidding, landscaping or other similar design features to minimize the aesthetic impacts of parking facilities. Exterior parking areas should be located away from the shoreline or attractively landscaped with vegetation that will not obstruct views of the lake from the public right-of-way.

*Policy SA-3.7: Limit outdoor lighting levels in the shoreline to the minimum necessary for safe and effective use.*

Artificial lighting can be used for many different purposes along the waterfront, including to aid in nighttime activities that would be impossible or unsafe under normal nighttime conditions, for security, or simply to make a property more attractive at night. At the same time, the shoreline area can be vulnerable to impacts of light and glare, potentially interrupting the opportunity to enjoy the night sky, impacting views and privacy and affecting the fish and wildlife habitat value of the shoreline area. To protect the scenic value, views, and fish and wildlife habitat value of shoreline areas, excessive lighting is discouraged. Shoreline development should use sensitive waterfront lighting to balance the ability to see at night with the desire to preserve the scenic and natural qualities of the shoreline. Parking lot lighting, lighting on structures or signs, and pier and walkway lighting should be designed to minimize excessive glare and light trespass onto neighboring properties and shorelines.

*Policy SA-3.8: Encourage the development of joint-use overwater structures, such as joint-use piers, to reduce impacts to the shoreline environment.*

The presence of an extensive number of piers has altered the shoreline. The construction of piers can modify the aquatic ecosystem by blocking sunlight and creating large areas of overhead cover. Minimizing the number of new piers by using joint facilities is one technique that can be used to minimize the effect of piers on the shoreline environment.

*Policy SA-3.9: Allow variations to development standards that are compatible with surrounding development to facilitate restoration opportunities along the shoreline.*

The City should consider appropriate variations to development standards to maximize the opportunities to restore shoreline functions. For example, reductions in setbacks could be used to facilitate restoration in highly altered areas that currently provide limited function and value for such attributes as large woody debris recruitment, shading, or habitat.

*Goal SA-4: Incorporate a variety of management tools, including improvement of City practices and programs, public acquisition, public involvement and education, incentives, and regulation and enforcement to achieve its goals for the shoreline area.*

Because Kirkland's natural resources are located on both public and on private land, a variety of approaches is needed for effective management of the shoreline. Kirkland should ensure that it uses a mix of public education and involvement, acquisition, program funding, and improvement of City practices on City land, together with regulation and enforcement.

*Goal SA-5: Ensure that private property rights are respected.*

A significant portion of Kirkland's shoreline is located in private ownership. Aspects of the Shoreline Master Program, including development regulations, setback requirements, environmental regulations and other similar regulatory provisions, may take the form of limitations on the use of private property. In establishing and implementing these types of land use controls, the City should be careful to consider the public and private interests as well as the long-term costs and benefits.

## Residential

*Goal SA-6: Protect and enhance the character, quality and function of existing residential neighborhoods within the City's shoreline area.*

*Policy SA-6.1: Permit structures or other development accessory to residential uses.*

Accessory uses such as garages, sheds, accessory dwelling units, and fences are common features normally applicable to residential uses. They should be permitted if located landward of the ordinary high water mark and outside of any critical area or critical area buffer.

*Policy SA-6.2: New overwater residences are not a preferred use and shall not be permitted. Existing nonconforming overwater residential structures should not be enlarged or expanded.*



**Overwater residences on the lake**

The City contains a number of existing overwater residential structures that were constructed prior to the City's limitation on overwater structures to water-dependent uses. These existing structures have created large areas of overhead cover, impacting the aquatic environment. Many of these structures are likely to be remodeled and modernized in the future and these activities should be carefully reviewed to prevent additional adverse impacts and to improve existing conditions, where possible.

~~*Policy SA-6.3: Promote opportunities to remove overwater residential structures over time.*~~

~~*Long term, the City should seek opportunities to work with private property owners to eventually eliminate all but water dependent overwater structures. Through property acquisition, public/private partnerships, and other creative mechanisms, leverage redevelopment to restore the natural environment and provide uninterrupted physical and visual linkages along the lake shore for the enjoyment of future generations.*~~

*Policy SA-6.3: Manage new subdivisions of land within the shoreline to:*

- Avoid the creation of new parcels with building sites that would impact wetlands, streams, slopes, frequently flooded areas and their associated buffers;
- Ensure no net loss of ecological functions resulting from the division of land or build-out of the lots;
- Prevent the need for new shoreline stabilization or flood risk measures that would cause significant impacts to other properties or public improvements or a net loss of shoreline ecological functions;
- Implement the provisions and policies for shoreline designations and the general policy goals of this program; and

- Provide public access along the shoreline [for subdivisions of five lots or more](#).

Though there is not a great capacity to add new units to the shoreline area through subdivision, if properties are divided they should be designed to ensure no net loss, minimize impacts, and prevent the need for new shoreline stabilization structures.

*Policy SA-6.4: Evaluate new single-family development within areas impacted by critical areas to protect ecological functions and ensure some reasonable economic use for all property within Kirkland's shoreline.*

West of and contiguous with the Yarrow Bay wetlands adjacent to the City limits there are a number of properties that were previously platted for residential use but remain vacant, forested, and impacted by critical areas. In addition, a few properties along the Forbes Creek corridor and Juanita Bay may be similarly encumbered. When considering development proposals on these properties, the City should use a process designed to assure that proposed regulatory or administrative actions do not unconstitutionally infringe upon private property rights.

#### *Commercial*

*Goal SA-7: Plan for commercial development along the shoreline that will enhance and provide access to the waterfront.*

*Policy SA-7.1: Permit water-enjoyment uses within the shoreline area of the Central Business District.*

Downtown Kirkland is an active urban waterfront which strongly benefits from its adjacency to Moss Bay. The Downtown area has a strong land use pattern that is defined by its restaurants, art galleries and specialty shops, which are connected within a pedestrian-oriented district. These uses draw substantial numbers of people to the Downtown and can provide opportunities, if appropriately designed and located, for the public to enjoy the physical and aesthetic benefits of the shoreline. For these reasons, water-enjoyment uses, such as restaurants, hotels, civic uses, and retail or other commercial, uses should be encouraged within the Downtown provided they are designed to enhance the waterfront setting and pedestrian activity.

*Policy SA-7.2: Manage development in the shoreline area of the Central Business District to enhance the waterfront orientation.*

The Central Business District contains extensive public use and views of the waterfront provided by public parks, street ends, public and private marinas, public access piers and shoreline public access trails. Yet, development along the shoreline has historically “turned its back” to Lake Washington, with active areas located opposite the lake and separated from it by large surface parking lots, limiting the ability to fully capitalize on the Downtown waterfront setting. Future growth and redevelopment along the shoreline in the Downtown should continue to reflect the waterfront setting and ensure that development is oriented to the lake. One key opportunity is to develop a large public plaza over the Marina Park parking lot in order to better connect the Downtown to the lake and the park.

*Policy SA-7.3: Maximize public access, use, and visual access to the lake within Carillon Point and the surrounding commercial area.*



**Public access at Carillon Point**

Carillon Point is a vibrant mixed-use development that contains office space, restaurants, and retail space in addition to a hotel, day spa and marina facilities. The site has been designed to provide both visual and physical access to the shoreline, including expansive view corridors which provide a visual linkage from Lake Washington Boulevard NE to the lake, as well as an internal pedestrian walkway system and outdoor plazas. The Central Plaza of Carillon Point is frequently used for public gatherings and events. The Plaza is encompassed by a promenade and Carillon Point's commercial uses. If new development or redevelopment occurs on this site, existing amenities related to public access, use and visual access to the lake should be preserved.

Immediately south of Carillon Point, the Yarrow Bay Marina and an new office development provides opportunities for public use and enjoyment of the waterfront, including boat rental facilities, a public waterfront trail and waterfront access area with seating and interpretative signs. In addition, public views across the site have been preserved in an expansive view corridor.

If new development or redevelopment occurs in the commercial area, the strong public access to and along the water's edge, waterfront public use areas, water-dependent uses such as the marinas, and views from Lake Washington Boulevard should be preserved to the greatest extent feasible.

*Policy SA-7.4: Enhance the physical and visual linkages to Lake Washington in the Juanita Business District.*

The shoreline area of the Juanita Business District presently contains a mix of retail, office and residential uses. Visual linkages to the lake in the Juanita Business District are limited, with existing development blocking most of the shoreline. Waterfront access trails are missing in several key locations, limiting access between Juanita Bay Park and Juanita Beach Park, which border the Business District on the north and south.

The ability to enhance physical and visual access to the lake is challenging in this area. Several of the shoreline properties are developed with residential condominiums, which are unlikely to redevelop. Some of the commercial properties are significantly encumbered by wetlands that are associated with Lake Washington. Should properties redevelop in this area, public access should be required as a part of redevelopment proposals, where feasible.

Despite these challenges, future redevelopment along the shoreline in the Juanita Business District should emphasize Juanita Bay as a key aspect of the district's identity, highlighting recreational opportunities available at Juanita Beach Park and providing better visual and pedestrian connections to both Juanita Bay and Juanita Beach Park and Lake Washington.

*Policy SA-7.5: Allow limited commercial uses in the area located between the Central Business District and Planned Area 15 if public access to and use of the shoreline is enhanced.*

Commercial uses which are open to and will attract the general public to the shoreline, such as restaurants, are appropriate within the urban area located between Downtown Kirkland and Carillon Point west of Lake Washington Blvd/Lake Street South. These uses will enhance the opportunity for public access to this segment of the shoreline,

and will complement neighboring shoreline parks and, as a result, should be encouraged. To assure that these uses enhance the opportunity for the public to take advantage of the shoreline, these uses should include amenities where the public can view and enjoy the shoreline. These uses should also be limited and designed to assure that they do not adversely impact the natural environment and interfere with nearby [water dependent and water-related](#) uses.

*Policy SA-7.6: Allow limited commercial uses, such as a hotel/motel and limited marina use, within Planned Area 3B.*

Planned Area 3B is fully developed with multifamily residential uses and contains a private marina facility. The site is also used for overnight lodging. The site has also been improved with a public trail along its entire perimeter, providing public access to Lake Washington and visual access to the Yarrow Bay wetlands.

*Policy SA-7.7: Nonwater-oriented commercial development may be allowed if the site is physically separated from the shoreline by another property or right-of-way.*

There are several commercial properties which do not have direct frontage on Lake Washington, either because they are separated by right-of-way (Lake Washington Boulevard NE, Lake Street, and 98th Avenue NE) or by another property. These properties should be allowed a greater flexibility of uses, given the physical separation from the waterfront area.

*Policy SA-7.8: Prohibit overwater commercial development other than piers and similar features that support water-dependent uses.*

Overwater structures can adversely impact the shoreline environment and should be avoided, except where necessary to support water-dependent uses, and then only when appropriately mitigated.

#### *Boating Facilities*

*Goal SA-8: Manage boating facilities to avoid or minimize adverse impacts.*

*Policy SA-8.1: Locate new boating facilities and allow expansion of existing facilities at sites with suitable environmental conditions, shoreline configuration, and access.*

One public marina and several private marinas are located on the lake within Kirkland. The City's public pier is located Downtown at Marina Park. Large private marinas include Carillon Point Marina, Yarrow Bay Marina and Kirkland Homeport Marina. Other private marinas providing moorage for multifamily developments are also located along the shoreline.

As new boating facilities are established or existing ones expanded, the facility should be designed to:

- Meet health, safety, and welfare requirements, including provisions for pump-out facilities;
- Mitigate aesthetic impacts;
- Minimize impacts to neighboring uses;
- Provide public access;
- Assure no net loss of shoreline ecological functions and prevent other significant adverse impacts; and
- Protect the rights of navigation and access to recreational areas.

*Policy SA-8.2: Require restoration activities when substantial improvements or repair to existing boating facilities is planned.*

The Kirkland waterfront has been extensively modified with piers and other overwater structures. These overwater structures impact the nearshore aquatic habitat, blocking sunlight and creating large areas of overhead cover. These



impacts, where they exist, should be mitigated when substantial improvements or repair to existing boating facilities are planned.

Restoration activities could include reducing or eliminating the number of boathouses and solid moorage covers, minimizing widths of piers and floats, increasing light transmission through overwater structures, enhancing the shoreline with native vegetation, improving shallow-water habitat, reducing the overall number and size of pier piles, and improving the quality of stormwater runoff.

*Goal SA-9: Promote use of best management practices to control pollutants from boat use, maintenance and repair, as well as proper sewage disposal for boats and potential invasive vegetation transfer.*

Marinas and the operation, maintenance and cleaning of boats can be significant sources of pollutants in water and sediments, as well as in animal and plant tissues. Significant steps have been taken at all levels of government and in the private sector to reduce the impacts of marinas and boating on the aquatic environment. The Federal Clean Water Act provides the federal government with the authority to regulate the discharge of boat sewage. In addition, the Department of Ecology has developed environmentally protective guidelines for the design and siting of marinas and sewage disposal facilities. The State Parks and Recreation Commission's boater education program provides technical assistance and signage and other materials to marinas. At the local level, governments and private businesses participate in boater programs as well, educating their moorage clients and providing them with the means to dispose of their wastes properly. The City should work cooperatively with State agencies, marina operators and boat owners to continue to minimize the impacts of boating on the aquatic environment.

#### *Managing Shoreline Modifications*

*Goal SA-10: Manage shoreline modifications to avoid, minimize, or mitigate significant adverse impacts.*

Significant adverse impacts caused from shoreline modifications should be avoided, minimized, or mitigated in the following sequential order of preference:

- Avoiding the impact altogether by not taking a certain action or part of an action.
- Minimizing the impact(s) by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- Minimizing or eliminating the impact by restoring or stabilizing the area through engineered or other methods;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
- Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
- Monitoring the hazard or other required mitigation and taking remedial action when necessary.

*Policy SA-10.1: Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions.*

Shoreline modifications are manmade alterations to the natural lake edge and nearshore environment and primarily include a variety of armoring types (some associated with fill), piers, and other in-water structures. These modifications alter the function of the lake edge, change erosion and sediment movement patterns, affect the distribution of aquatic vegetation and are often accompanied by upland vegetation loss. Impacts from these shoreline modifications can be minimized by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modifications.

#### *Fill*

*Policy SA-10.2: Limit fill waterward of the ordinary high water mark to support ecological restoration or to facilitate water-dependent or public access uses.*

Fill allows for the creation of dry upland areas by the deposition of sand, silt, gravel or other materials onto areas waterward of the ordinary high water mark. Fill has traditionally been used in the shoreline area to level or expand residential yards and, in many cases, has been associated with armoring of the shoreline. This use of fill has resulted in an alteration of the natural functions of the lake edge and has often been accompanied by a loss of upland vegetation. As a result, this use of fill should be discouraged.

Alternatively, fill can also be used for ecological restoration, such as beach nourishment, when materials are placed on the lake bottom waterward of the ordinary high water mark. This type of fill activity should be encouraged; provided, that it is designed, located and constructed to improve shoreline ecological functions.

#### *Land Surface Modification*

*Policy SA-10.3: Limit Land Surface Modification activities in the shoreline area.*

Land Surface Modification activities are typically associated with upland development. These activities have the potential to cause erosion and siltation, increase runoff and flood volumes, reduce flood storage capacity and damage habitat and therefore should be carefully considered to ensure that any potential adverse impacts are avoided or minimized. Impacts from Land Surface Modification activities can be avoided through proper site planning, construction timing practices, and use of erosion and drainage control methods. Generally, these activities should be limited to the maximum extent necessary to accommodate the proposed use, and should be designed and located to protect shoreline ecological functions and ecosystem-wide processes.

#### *Dredging*

*Policy SA-10.4: Design and locate new shoreline development to avoid the need for dredging.*

*Policy SA-10.5: Discourage dredging operations, including disposal of dredge materials.*

Dredging is typically associated with a reconfiguration of the lake bed or stream channel to remove sediments, expand a channel, or relocate or reconfigure a channel. For instance, dredging can be used to excavate moorage slips that have been filled in with sediments or are located in shallow water. In other cases, dredging can be used to remove accumulated sediment that has disrupted water flow and, as a result, water quality, as is the case at Juanita Beach Park.

Dredging activities can have a number of adverse impacts, such as an increase in turbidity and disturbance to or loss of animal and plant species. Dredging activities can also release nutrients in sediments, and may temporarily result in increased growth of nuisance macrophytes such as milfoil after construction is completed. Dredging can also release toxic materials into the water column. As a result, dredging activities should be limited except when necessary for habitat or water quality restoration, or to restore access, and where impacts to habitat are minimized and mitigated.

#### *Shoreline Stabilization*

*Policy SA-10.6: Limit use of hard structural stabilization measures to reduce shoreline damage.*





**Bulkheads along the lake**

Lake Washington is an important migration and rearing area for juvenile Chinook salmon. The juvenile Chinook salmon using the lake depend on the following habitat characteristics:

- Shoreline areas with shallow depths (>1 m).
- Gentle slope.
- Fine substrates such as sand and gravel.
- Overhanging vegetation/small woody debris.
- Small creeks with a shallow, low-gradient at the creek mouth<sup>2</sup>.

Remaining areas with these characteristics should be protected and maintained, while developed areas along Kirkland's shoreline should be enhanced with these habitat features, where feasible.

Bulkheads and other forms of hard stabilization measures impact the suitability of the shoreline for juvenile Chinook salmon habitat, in particular the slope, depth and substrate materials of the shoreline. Shoreline protective structures such as bulkheads create deeper water with steeper gradient and a coarser bottom substrate. Waves no longer are able to dissipate energy over distance as they hit shallower bottom, rocks, or shoreline vegetation. Rather, the wave reflects off a vertical wall, causing scouring of sediment at the base of the wall. The finer sands are removed as the gravel is eroded away and the bottom substrate becomes coarser. The result is a much deeper and steeper nearshore environment, and often elimination of a beach.

Despite these potential ecological impacts, there are some areas along the City's shoreline, especially on shallow lots with steep banks, which may need some form of shoreline armoring in order to protect existing structures and land uses. It is the intent of this policy to require that shoreline stabilization be accomplished through the use of nonstructural measures, such as building setbacks or on-site drainage improvements, or soft structural measures, such as bioengineering or beach enhancement unless these methods are determined to be infeasible, based on a scientific or geotechnical analysis. In those circumstances where alternatives are demonstrated to not be feasible, the shoreline stabilization measures used should be located, designed, and maintained in a manner that minimizes adverse effects on shoreline ecology.

*Policy SA-10.7: Design, locate, size and construct new or replacement structural shoreline protection structures to minimize and mitigate the impact of these activities on the Lake Washington shoreline.*

Shoreline protective structures should be allowed to protect a legally established structure or use that is in danger of loss or substantial damage. The potential for damage must be conclusively shown, as documented by a geotechnical analysis, to be caused by shoreline erosion associated with wave action.

Where allowed, shoreline protection structures should minimize impacts on shoreline hydrology, navigation, habitat, and public access. Shoreline protective structures should be designed for the minimum height, bulk and extent necessary to address an identified hazard to an existing structure. As noted above, vegetation and nonstructural solutions should be used rather than structural bank reinforcement, unless these methods are determined to be infeasible, as documented by a geotechnical analysis.

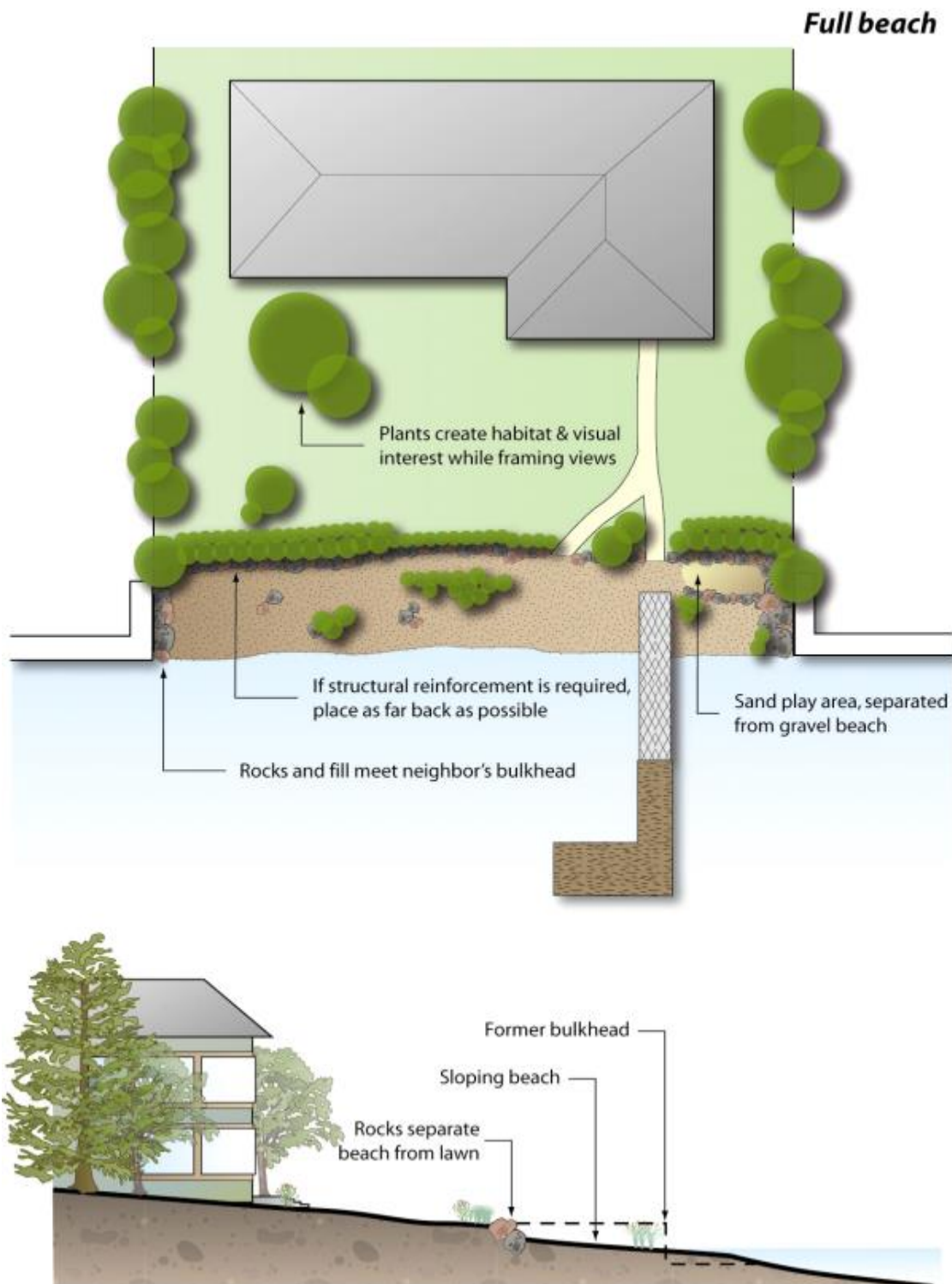
*Policy SA-10.8: Locate and design new development to eliminate the need for new shoreline modification or stabilization.*



**Soft shoreline restoration with native vegetation along the lake**

New development should be located and designed so that new structural shoreline protection features are not needed.

*Policy SA-10.9: Encourage salmon-friendly shoreline design during new construction and redevelopment by offering incentives and regulatory flexibility to improve the design of shoreline protective structures and revegetate shorelines.*



**Illustration of soft shoreline restoration with native vegetation**

In recent years, many bioengineered techniques have been developed to provide alternative shoreline protection methods. These features may employ the use of gravel substrate material, terraces, large flat rocks, shallow pools, logs, and vegetation to prevent erosion and provide an attractive, usable shoreline. The aim of these designs is to

reduce bank hardening, restore overhanging riparian vegetation, and replace bulkheads with sand beaches and gentle slopes. These techniques can provide many ecological benefits, including:

- Less turbulence.
- Shallower grade.
- Protection from predators.
- Finer sandy bottom.
- Increased food source.

The WRIA 8 Conservation Strategy notes the importance of reducing bank hardening, restoring overhanging riparian vegetation, replacing bulkheads and riprap with sandy beaches with gentle slopes to improve the habitat for juvenile Chinook salmon<sup>3</sup>. In order to facilitate the use of alternatives to shoreline stabilization composed of concrete, riprap, or other hard structural or engineered materials, the City should identify appropriate regulatory flexibility or offer incentives to shoreline property owners to voluntarily remove bulkheads and to revegetate the shoreline.

*Policy SA-10.10: Expand outreach to lakeside property owners about shoreline landscape design, maintenance, and armoring alternatives.*

The City should evaluate different outreach and education actions to foster stewardship of shoreline property owners and the general public, including but not limited to the following:

- Distribute educational materials on a range of topics, including salmon habitat needs, household and landscape best management practices, the value of large woody debris, the value of tree cover, and stormwater issues.
- Establish a contact list of shoreline property owners to facilitate educational outreach.
- Offer shoreline property owners workshops on “salmon-friendly” design.
- Use restoration projects sites for demonstration purposes and provide interpretation at restoration sites, including signage, tours, and other methods.
- Provide information about opportunities for involvement in community stewardship projects.
- Offer education to landscape designers/contractors on riparian design.
- Create local informational TV spots that could run on the City’s television channel.
- Focus environmental/science curricula on local watershed issues.

Public outreach efforts should focus on the opportunity to improve existing habitat, but also on the potential benefits that alternative shoreline stabilization can offer, including:

- Easier access to beach and water, especially with a kayak or other human-powered craft.
- Shallow gradient shore and water can be safer, especially for small children.
- More usable shoreline with beach and cove.
- Reduced maintenance.
- Potential for increased property values.

#### *In-stream Structures*

*Policy SA-10.11: Limit the use of in-stream structures.*

“In-stream structure” means a structure placed by humans within a stream waterward of the ordinary high water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. Within Kirkland, these features typically include those for flood control, transportation, utility service transmission, and fish habitat enhancement.

In-stream structures should only be used in those circumstances where it is demonstrated to provide for the protection and preservation of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas. The location and planning of in-stream structures should be determined with due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

*Breakwaters and Similar Features**Policy SA-10.12: Limit the use of breakwaters and other similar structures.*

A breakwater typically refers to an off-shore structure designed to absorb and/or reflect wave energy back into the water body. Breakwaters can be floating or fixed in location and may or may not be connected to the shore. These modifications are limited within the City, but can be found at Kirkland Homeport Marina as well as at Juanita Beach Park, where a breakwater has been installed around the overwater boardwalk to shelter the swimming area. Breakwaters have the potential to adversely impact the shoreline environment, including impacts to sediment transport, deflection of wave energy, a decrease in water flushing and water exchange, to name a few. As a result, the installation of new breakwaters should be limited to those circumstances when it is shown to be necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose. In these circumstances, the feature should be carefully designed to avoid, minimize, and then mitigate any adverse ecological impacts.

*Piers**Goal SA-11: Minimize impacts to the natural environment and neighboring uses from new or renovated piers.*

**Piers near Juanita Bay**

*Policy SA-11.1: Design and locate private piers so that they do not interfere with shoreline recreational uses, navigation, or the public's safe use of the lake and shoreline.*

Private piers should be located and designed to provide adequate separation from public parks, other adjoining moorage facilities and adjacent properties in order to limit any adverse impacts to safe navigation or recreational uses.



*Policy SA-11.2: Design and construct new or expanded piers so that they are in character with adjacent neighboring piers for length.*

*Private piers should not exceed the length of neighboring piers. A pier that exceeds the length of neighboring piers can be a boating hazard for the neighbors and the general public, result in unnecessary additional overwater coverage and create a structure out of character with the neighborhood.*

*Policy SA-11.32: Design and construct new or expanded piers and their accessory components, such as boat lifts and canopies, to minimize impacts on native fish and wildlife and their habitat.*

The Kirkland waterfront has been extensively modified with piers and other overwater structures. These overwater structures impact the nearshore aquatic habitat, blocking sunlight and creating large areas of overhead cover. Piers and other overwater structures also shade the lake bottom and inhibit the growth of aquatic vegetation<sup>4</sup>. These types of structural modifications to shorelines are now known to benefit non-native predators (like largemouth and smallmouth bass), while reducing the amount of complex aquatic habitat formerly available to salmonids rearing and migrating through Lake Washington<sup>5</sup>. This can impact juvenile salmonids, in particular, due to their affinity to nearshore, shallow-water habitats. Chemical treatments of pier components, such as creosote pilings, installed prior to today's standards, have also impacted water and sediment quality in the lake.

The combined effect of an overwater structure and a dramatic change in aquatic vegetation results in a behavior modification in juvenile salmonids, which will often change course to circumvent large piers or other overwater structures rather than swimming beneath them<sup>6</sup>. These behavior modifications disrupt natural patterns of migration and can expose juvenile salmonids to increased levels of predation.

Minimizing overwater coverage and associated support structures can benefit salmon. Studies related to shading effects from varying types of pier decking indicate that grated decking provides significantly more light to the water surface than traditional decking methods and may lead to improved migratory conditions for juvenile Chinook salmon<sup>7</sup>.

Impact minimization measures, which have been identified by State and federal agencies, include, but are not limited to:

- Shared use of piers;
- Reducing or eliminating the number of boathouses and solid moorage covers (e.g., use of clear, translucent materials proven to allow light transmission for new canopies);
- Minimizing the size and widths of piers and floats;
- Increasing light transmission through any overwater structures (e.g., use of grated decking);
- Maximizing the height of piers above the water surface;
- Enhancing the shoreline with native vegetation;
- Improving shallow-water habitat;
- Reducing the overall number and size of pier piles; and
- Improving the quality of stormwater runoff.

*Policy SA-11.43: Minimize aesthetic impacts of piers and their accessory components.*

To minimize aesthetic impacts, ensure that lighting does not spill over onto the lake water surface, and minimize glare, piers should make use of nonreflective materials, minimize lighting facilities to that necessary to find the pier at night and focus illumination downward and away from the lake.

*Shoreline Habitat and Natural Systems Enhancement Projects*

*Goal SA-12: Restore shoreline areas that have been degraded or diminished in ecological value and function as a result of past activities.*

*Policy SA-12.1: Include provisions for shoreline vegetation restoration, fish and wildlife habitat enhancement, and low-impact development techniques in projects located within the shoreline, where feasible.*

Shoreline habitat and natural systems enhancement projects include those activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines. Such projects may include shoreline modification actions such as modification of vegetation, removal of non-native or invasive plants, shoreline stabilization, dredging, and filling; provided, that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

The City's shoreline has been impacted by past actions and, as a result, there are many opportunities available for restoration activities that would improve ecological functions. For example, enhancement of riparian vegetation, reductions or modifications to shoreline hardening, and improvements to fish passage would improve the ecological function of the City's shoreline. Many of these restoration opportunities exist throughout the City on private property, as well as on City property, including parks, open spaces, and street ends. Both public and private efforts are needed to restore habitat areas. Opportunities include public-private partnerships, partnerships with other agencies and affected tribes, capital improvement projects, and incentives for private development to restore and enhance fish and wildlife habitat.

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<sup>1</sup> WRIA 8 Steering Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. July 2005.

<sup>2</sup> Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.

Tabor, R.A., J.A. Schuerer, H.A. Gearns, and E.P. Bixler. 2004b. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2002. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, Washington.

Tabor, R.A., H.A. Gearns, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.

<sup>3</sup> WRIA 8 Steering Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. July 2005.

<sup>4</sup> Fresh, K.L. and G. Lucchetti. 2000. Protecting and restoring the habitats of anadromous salmonids in the Lake Washington Watershed, an urbanizing ecosystem. Pages 525-544 in E.E. Knudsen, C.R. Steward, D.D. MacDonald, J.E. Williams, and D.W. Reiser (editors). Sustainable Fisheries Management: Pacific salmon. CRC Press LLC, Boca Raton, FL.

<sup>5</sup> Kahler, T., M. Grassley, and D. Beauchamp. 2000. A summary of the effects of bulkheads, piers, and other artificial structures and shorezone development on ESA-listed salmonids in lakes. Final Report. Prepared for City of Bellevue by The Watershed Company. 74 pp. Kerwin, J. 2001. Salmon and steelhead habitat limiting factors report for the Cedar-Sammamish Basin (Water Resource Inventory Area 8). Washington Conservation Commission. Olympia, WA.

Tabor, R.A., H.A. Gearns, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.

<sup>6</sup> Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.



Tabor, R.A., J.A. Schuerer, H.A. Gearns, and E.P. Bixler. 2004b. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2002. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, WA.

Tabor, R.A., H.A. Gearns, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.

<sup>7</sup> Gayaldo, P.F. and K. Nelson. 2006. Preliminary results of light transmission under residential piers in Lake Washington, King County, WA: A comparison between prisms and grating. *Lake and Reserv. Manage.* 22(3):245-249.

## 2. Shoreline Environment

*Goal SA-13: Preserve, protect, and restore the shoreline environment.*

Kirkland is enriched with valued natural features within the shoreline area that enhance the quality of life for the community. Natural systems serve many essential functions that can provide significant benefits to fish and wildlife, public and private property, and enjoyment of the shoreline area.

### *Shoreline Critical Areas*

Note: The ~~Shoreline~~Natural Environment Chapter of the Comprehensive Plan contains a set of goals and policies relating to critical areas, ~~including Goals NE-1, together with related Policies NE-1.1 through NE-1.6, Goal NE-2, together with related policies NE-2.1 through NE-7, and Goal NE-4.~~

Critical areas found within the shoreline area include geologically hazardous areas, frequently flooded areas, wetlands, and fish and wildlife habitat conservation areas. Floodplains, while not a designated critical area, are also addressed in this section due to the relationship with frequently flooded areas within the City. No critical aquifer recharge areas are mapped within the City. Critical areas in the shoreline area are subject to regulated by the critical areas regulations contained in Chapter 90 KZC critical areas regulations incorporated and included by reference into the City's SMP.

*Policy SA-13.1: Conserve and protect critical areas within the shoreline area from loss or degradation.*

Environmentally critical areas within the shoreline area are important contributors to Kirkland's shoreline environment and high quality of life. Some natural features are critical to protect in order to preserve the important ecological functions they provide. The City also regulates and restricts development within critical areas because of the hazards they present to public health and safety. This policy is intended to ensure that the ecological functions and ecosystem-wide processes of these natural systems are maintained and improved.

*Policy SA-13.2: Locate and design public access within and adjacent to critical areas to ensure that ecological functions are not impacted.*

While public access for educational and public access purposes is an important objective, the location and design of public access must be carefully considered to avoid impacts to critical areas.

### *Geologically Hazardous Areas*

*Policy SA-13.3: Manage development to avoid risk and damage to property and loss of life from geological conditions.*

Geologically hazardous areas include landslide hazard areas, erosion hazard areas and seismic hazard areas. These areas, as a result of their slope, hydrology, or underlying soils, are potentially susceptible to erosion, sliding, damage from earthquakes or other geological events. These areas can pose a threat to health and safety, if development is not appropriately managed and the area studied as a condition of permitting construction.

### *Wetlands*

*Policy SA-13.4: Protect and manage shoreline-associated wetlands.*

Wetlands are areas that, under normal conditions, are inundated or saturated by surface or groundwater at a frequency and duration to support a prevalence of vegetation typically adapted for life in saturated soil conditions. The wetlands located within the shoreline area perform many ecological functions, including habitat for fish and wildlife, flood control, and groundwater recharge, as well as surface and groundwater transport, storage and filtration. Additionally, wetlands provide opportunities for research and scientific study, outdoor education, and passive recreation.

Kirkland's shoreline contains two extensive high-quality wetland systems: the wetlands located contiguous with the shoreline at Juanita Bay Park and extending up through the Forbes Valley (Forbes 1) and the Yarrow Bay wetlands (Yarrow 1). It is estimated that these wetlands combined are over 156 acres in size. The Forbes 1 wetland has several different vegetation classes, including forested, scrub-shrub, emergent, open water, and aquatic bed. The wetland contains a variety of plant species and types, including native red alder, willow, cottonwood, salmonberry, spiraea, red osier dogwood, skunk cabbage, buttercup, small-fruited bulrush, lady fern, soft rush, horsetail, cattail, and non-native Himalayan blackberry, reed canarygrass and purple loosestrife. Within the *Final Kirkland Shoreline Analysis Report* (2006), this system has been rated "high quality" for several functions, including habitat, water and sediment storage, water quality improvement, wave energy attenuation and bank stabilization, and nutrient and toxic compound removal.

The Yarrow Bay wetland complex similarly contains a number of wetland classes, including forested, scrub-shrub, emergent, open water, and aquatic bed. The Yarrow Bay complex also contains a mixture of plant species and types, including native red alder, willow, cottonwood, salmonberry, spiraea, red osier dogwood, and cattail and non-native Himalayan blackberry and reed canarygrass. The *Final Kirkland Shoreline Analysis Report* (2006) also rates this system "high quality" for numerous functions.

The Forbes 1 and Yarrow 1 wetlands are also mapped as priority wetlands by Washington Department of Fish and Wildlife (WDFW) (2006). Priority wetlands are those wetlands that have "[c]omparatively high fish and wildlife density, high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, limited availability, [and] high vulnerability to habitat alteration."

This policy is intended to ensure that the City achieves no net loss of wetlands through retention of wetland area, functions and values. Mitigation sequencing is used to ensure impacts to wetlands are avoided, where possible, and mitigated, when necessary.

Wetlands are protected in part by buffers, which are upland areas adjacent to wetlands. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment loads; remove waterborne contaminants such as excess nutrients, synthetic organic chemicals (e.g., pesticides, oils, and greases), and metals; provide shade for surface water temperature moderation; provide wildlife habitat; and deter harmful intrusion into wetlands.

#### *Fish and Wildlife Habitat Conservation Areas*

##### *Policy SA-13.5: Protect and restore critical freshwater habitat.*

Fish and wildlife habitat conservation areas provide food, protective cover, nesting, breeding, or movement for threatened, endangered, sensitive, monitor, or priority species of plants, fish, or wildlife. Within the City, there are several areas that fall within this classification.

Lake Washington is known to support a diversity of salmonids, including Chinook salmon, steelhead trout, bull trout (listed as threatened under the Endangered Species Act), Coho salmon, sockeye salmon, and kokanee salmon.

Several streams pass through the City of Kirkland, discharging into Lake Washington. Several of these streams are known to support fish use, including Chinook (juvenile use of the mouths of several streams), Coho, sockeye salmon, and steelhead and cutthroat trout. Some of the most prominent fish-bearing streams include Yarrow Creek, Forbes Creek, ~~and~~ Juanita Creek and Denny Creek, which are protected within City parks at their outlet to Lake Washington. Salmonid and other fish species are also known to inhabit other Lake Washington tributaries such as Carillon Creek and Champagne Creek.

The Forbes Creek corridor is designated by WDFW as a priority "riparian zone" because it has been determined to meet these criteria: "[h]igh fish and wildlife density, high fish and wildlife species diversity, important fish and wildlife breeding habitat, important wildlife seasonal ranges, important fish and wildlife movement corridors, high vulnerability to habitat alteration, unique or dependent species." Denny Creek is designated by WDFW as a biodiversity area and corridor with pileated woodpecker habitat, and bald eagle nests.

Both the Yarrow Bay wetlands and Juanita Bay Park extending up the Forbes Creek corridor provide excellent habitat for birds (including songbirds, raptors, and waterfowl), amphibians, mammals and even reptiles. Bald eagles

and ospreys regularly perch in trees adjacent to Juanita and Yarrow Bays, and forage in the Bays. Pileated woodpeckers (a State ~~Sensitive~~Candidate species) also reportedly nest in the Juanita Bay wetlands, and according to the East Lake Washington Audubon Society, purple martins (a State Candidate species) used nesting gourds installed in early 2006 around the Juanita Bay. ~~Although a bald eagle nest is mapped in the Yarrow Bay wetlands, it was last active in 1999 and the nesting pair relocated to Hunts Point. However, the mapped great blue heron nesting colony is still active.~~ Bald eagle (a Federal Species of Concern) nests can be found in Yarrow Bay and in the Market Street and Finn Hill neighborhoods near Lake Washington. Great Blue Herons (a State Monitor species) can be found in Yarrow Bay. Trumpeter Swans can be found in Juanita Bay. See WDFW maps and Kirkland Best Available Science Report dated December 2015 prepared by The Watershed Company.

This policy is intended to ensure that the ecological functions and ecosystem-wide processes associated with critical freshwater habitats are protected to assure no net loss, and that improvements are made through restoration activities. The City has worked to protect these valuable habitat areas through acquisition and management of public areas, as well as development controls, including protection of streams and wetlands and their associated buffers and coordination with federal and State agencies on protection issues associated with listed species.

#### *Frequently Flooded Areas and Floodplains*

*Goal SA-14: Limit new development in floodplains.*

*Policy SA-14.1: Regulate development within the 100-year floodplain to avoid risk and damage to property and loss of life.*

Frequently flooded areas help to store and convey storm and flood water; recharge groundwater; provide important riparian habitat for fish and wildlife; and serve as areas for recreation, education, and scientific study. Development within these areas can be hazardous to those inhabiting such development, and to those living upstream and downstream. Flooding also can cause substantial damage to public and private property that results in significant costs to the public as well as to private individuals.

The primary purpose of frequently flooded areas regulations is to regulate development in the 100-year floodplain to avoid substantial risk and damage to public and private property and loss of life. Lake Washington does not have a floodplain due to its lake elevation control by the Corps. However, floodplains are designated for both Yarrow Creek wetlands in association with Yarrow Creek and the low-gradient riparian area associated with Forbes Creek.

In both cases, the potential channel migration zone is protected as wetlands associated with Lake Washington. This protection limits development and modifications in those areas where the creeks have the potential to migrate. This protection limits the potential for migration to affect existing or future structures.

#### *Water Quality and Quantity*

Note: The ~~Natural~~ Environment Chapter of the Comprehensive Plan contains a set of ~~goals and~~ policies relating to water systems and addressing water quality and quantity, ~~including Goal NE 2, together with related policies NE 2.1 through NE 2.7.~~ The Utilities Chapter also contains policies addressing storm water, ~~including Goal U 4, together with related policies U 4.1 through U 4.11.~~

*Goal SA-15: Manage activities that may adversely impact surface and groundwater quality or quantity.*

While most of the storm water entering streams and the lake does not come from the shoreline jurisdiction, surface water management is still a key component of the shoreline environment, due to the potential of activities in the larger watershed basin to contribute to water quantity and quality conditions in streams and the lake.

As part of Kirkland's Surface Water Utility, Surface Water Master Plan, and implementation of the NPDES Phase II Municipal Stormwater permit requirements, the City is pursuing activities and programs within the larger watershed basin to address flood protection, water quality improvement, and habitat protection and restoration.

Within the shoreline jurisdiction, the City can regulate development and provide education and incentives to minimize impacts to water quality and limit the amount of surface water runoff entering the lake.

*Policy SA-15.1: Manage storm water quantity to ensure protection of natural hydrology patterns and avoid or minimize impacts to streams.*

Native forest communities with healthy soil structure and organic contact help to manage the amount and timing of runoff water that reaches streams and lakes by intercepting, storing, and slowly conveying precipitation. As these systems are impacted and forests are replaced by impervious surfaces like roads, parking areas, and rooftops, larger quantities of water leave the developed watershed more quickly. Impervious surfaces affect the amount of water that seeps into the ground and washes into streams; they also affect how quickly the water gets there. When land is covered with pavement or buildings, the area available for rainwater and snowmelt to seep into the ground and replenish the groundwater is drastically reduced; in many urban areas it is virtually eliminated. The natural movement of water through the ground to usual discharge points such as springs and streams is altered. Instead, the natural flow is replaced by storm sewers or by more concentrated entrance points of water into the ground and surface drainages.

Changing the timing and amount of water runoff can lead to too much water going directly into streams in the rainy months of winter instead of soaking into the ground. Consequently, there is not enough water in the ground to slowly release into streams in the dry months of summer. Too much water in the winter causes unnaturally swift currents that can erode stream banks and scour and simplify the stream channels, damaging fragile fish habitat. In contrast, not enough water in streams in the summer leads to water temperatures too high to support fish and isolation of fish in small pools. These fundamental changes to hydrology alter watersheds in several ways, including the following:

- The size, shape, and layout of stream channels change to accommodate the new flow regime, thus changing physical habitat conditions for aquatic species.
- Erosion increases suspended solid concentrations and turbidity in receiving properties which can impair survival of aquatic species, including salmon.
- Opportunities for soils and vegetation to filter pollutants from stormwater are reduced, leading to water quality degradation. Stormwater can also carry heavy metals, household wastes, excess nutrients, and other pollutants to the shoreline area.
- Reduced streamside vegetation can lead to increased water temperatures that reduce survival of aquatic species, including salmon. Fine sediment smothers fish eggs, impacting future populations.

Discharges into the tributary streams, such as Forbes Creek, can have a significant impact on in-stream habitat complexity, peak flow magnitude and duration, bank stability, substrate composition, and a number of other parameters.

*Policy SA-15.2: Prevent impacts to water quality.*

This policy is intended to prevent impacts that would result in a net loss of shoreline ecological functions, or a significant impact to aesthetic qualities or recreational opportunities.

Water is essential to human life and to the health of the environment. Water quality is commonly defined by its physical, chemical, biological and aesthetic (appearance and smell) characteristics. A healthy environment is one in which the water quality supports a rich and varied community of organisms and protects public health. Water quality influences the way in which Kirkland uses water for activities such as recreation and scientific study and education, and it also impacts our ability to protect aquatic ecosystems and wildlife habitats.

The degradation of water quality adversely impacts wildlife habitat and public health. This is particularly relevant to the shoreline, since all of the regulated surface waters, both natural and piped, are discharged ultimately to Lake Washington. The water quality impact of stormwater inputs is also significant. Stormwater runoff carries pesticides, herbicides and fertilizers applied to lawns and sports fields; hydrocarbons and metals from vehicles; and sediments

from construction sites, among other things. All of these things can harm fish and wildlife, their habitats, and humans.

Presently, Lake Washington is considered at risk for chemical contamination from hydrocarbon input from the urbanized watershed. The lake has also exhibited problems with levels of fecal coliform, ammonia, and PCBs present (*Final Kirkland Shoreline Analysis Report*, 2006).

The City has various programs to control stormwater pollution through maintenance of public facilities, inspection of private facilities, water quality treatment requirements for new development, source control work with businesses and residents, and spill control and response. These programs are managed under the Surface Water Utility, whose goals are:

- Flood protection;
- Water quality improvement; and
- Habitat protection and restoration.

Kirkland has also adopted a *Surface Water Master Plan* that sets goals and recommends actions for flood reduction, water quality improvement, and aquatic habitat restoration. This plan contains plans and programs to address water quality and high flow impacts from creeks and shoreline development through a number of mechanisms, including the following:

- Participation in WRIA 8 activities.
- Adoption of regulations and best management practices consistent with the NPDES Phase II permit requirements.
- Increased public education and outreach.
- Construction of projects that address existing flooding problems.
- Increased inspection and rehabilitation of the existing stormwater system.
- Identifying pollution “hot spots” for possible water quality treatment.
- Examining City practices and facilities to identify where water quality improvements can be made.
- Combining flow controls with in-stream habitat improvement projects in Juanita and Forbes creek watersheds.

*Policy SA-15.3: Require environmental cleanup of previously contaminated shorelines.*

Some of Kirkland’s shorelines previously supported industrial or commercial practices that may have resulted in environmental contamination. If not addressed, environmental contamination can continue to impact the environmental quality of Kirkland’s shorelines. The potential liability associated with contamination can complicate business development, property transactions or expansion on the property as well. Sites which are suspected of having past activities that may have resulted in environmental contamination should be evaluated and developers should comply with State and federal regulations and programs addressing environmental contamination, including the Model Toxics Control Act, as well as the the Department of Ecology’s Voluntary Cleanup Program.

*Policy SA-15.4: Support public education efforts to protect and improve water quality.*

Many residential yards within the shoreline area are dominated by lawn and landscaping, which can contribute water quality contaminants such as fertilizers, herbicides, and pesticides. Fertilizers and herbicides can affect the aquatic vegetation community, stimulating overgrowth of some species which can have a multitude of deleterious effects and suppress growth of other species. Pesticides also directly affect fish. Fish use their olfactory sense to find their way home. Garden chemicals that get into our lakes and streams may mask the smell fish use for homing. Scientists have found that pesticides also interfere with the ability of salmon to reproduce and avoid predators. Other effects



include impaired reproduction, skeletal deformities, decreased swimming ability, and toxicity to salmon food sources.

Presently, nutrient levels in Lake Washington do not represent a problem for salmonids (*Final Kirkland Shoreline Analysis Report*, 2006). Encouraging natural yard care practices and salmon-friendly landscape design can help to reduce the contaminant load into Lake Washington. Should nutrient levels continue to increase and represent a more significant problem, regulations limiting the use of pesticides, fertilizers and herbicides in the shoreline environment may become necessary.

Boat maintenance can also impact the aquatic environment with hydrocarbons, oils and other chemicals, and solvents. Providing information on boating practices, including operation and maintenance practices that can help prevent harmful substances from entering the water such as gasoline, two-stroke engine fuel, paint, and wood conditioner and other boat related substances, can also improve water quality. The City should also assist property owners by providing information on environmentally friendly methods of maintaining piers and decks.

Finally, the City should continue its efforts to increase the public's awareness of potential impacts of certain practices on water bodies and water quality, including improper disposal of hazardous materials.

### *Vegetation Management*

Note: The ~~Natural~~ Environment Chapter of the Comprehensive Plan contains goals and policies relating to vegetation, including Goal NE-3, together with related policies NE-3.1 through NE-3.3. The Natural Resources Management Plan also addresses issues relating to vegetation management in Section C, Land and Vegetation.

*Goal SA-16: Protect, conserve and establish vegetation along the shoreline edge.*

*Policy SA-16.1: Plan and design new development or substantial reconstruction to retain or provide shoreline vegetation.*

Vegetation within the shoreline environment is essential for fish and wildlife habitat, providing habitat complexity and, in the case of riparian vegetation, supporting the insects that provide an important food source for salmon<sup>1</sup>. Shoreline vegetation is also important in helping to camouflage young salmon as they hide amidst root wads, beneath overhanging vegetation, or within branches that have fallen into the water<sup>2</sup>. Vegetation also helps to support soil stability, reduce erosion, moderate temperature, produce oxygen, and absorb significant amounts of water, thereby reducing runoff and flooding.





### **Cove with native shoreline vegetation along lake**

Presently, shoreline vegetation and riparian structure are not properly functioning within Lake Washington (*Final Kirkland Shoreline Analysis Report*, 2006). The intent of this policy is to protect existing shoreline vegetation, in particular existing trees, and establish new vegetation, including native trees, shrubs and groundcover, along the shoreline edge to improve shoreline vegetation and riparian structure and the ecological functions that these shoreline conditions affect.

*Policy SA-16.2: Minimize tree clearing and thinning activities along the shoreline and require mitigation for trees that are removed.*

As a result of the functions that shoreline vegetation provides, it is important that vegetation conservation measures be implemented along the shoreline. New trees or other appropriate restoration should be installed to replace functions of trees that are removed, either through development or as part of ongoing management of property. Tree removal or topping for the purposes of creating views should be prohibited. Limited thinning of trees to enhance views or for maintenance of health and vigor of the tree may be appropriate in certain circumstances; provided, that this activity does not adversely impact tree health, ecological functions, and/or slope stability.

Applicants are encouraged to make trees that are removed available for City shoreline restoration projects.

*Policy SA-16.3: Provide outreach and education materials to lakeside property owners about the importance and role of shoreline vegetation.*

The City should offer shoreline property owners workshops or other materials to address the value of riparian vegetation, invasive species, erosion control, the value of large woody debris for salmon habitat, and natural yard care practices.

Public outreach efforts should focus on the opportunity to improve existing habitat and on the ability to use shoreline vegetation to:

- Create an attractive landscape that offers variety and seasonal color;
- Reduce maintenance;
- Provide privacy without sacrificing views;
- Increase property values;
- Improve water quality; and
- Reduce use by geese and other waterfowl.

*Goal SA-17: Design aquatic vegetation management efforts to use a mix of various control methods with emphasis on the most environmentally sensitive methods.*

Noxious weeds of Washington State are non-native, invasive plants defined by law as a plant that when established is highly destructive, competitive or difficult to control by cultural or chemical practices. These plants have been introduced intentionally and unintentionally by human actions. Most of these species have no natural enemies, such as insects or diseases, to help keep their population in check. As a result, these plants can often multiply rapidly. The two most common invasive species that are impacting Lake Washington's and Kirkland's marinas, residential waterfront owners and wildlife are Eurasian watermilfoil and white water lily. Eurasian watermilfoil, an aquatic plant found in lakes and slow-moving streams, can lower dissolved oxygen and increase pH, displace native aquatic plants, and increase water temperature.

Some aquatic weeds are controlled because they interfere with human needs such as boating and swimming in the lakes. Others pose a threat to the environment. The introduction of any non-native species has an effect on native species and habitats, although it is often difficult to predict those effects. However, there is a growing number of non-native aquatic plant and animal species whose current or potential impacts on native species and habitats are

known to be significant. Potential threats may be evidenced by the degree of negative impact these species have upon the environment, human health, industry and the economy (WDFW 2001). Potential negative impacts relevant to the Lake Washington environment include:

- Loss of biodiversity;
- Threaten ESA-listed species such as salmon;
- Alterations in nutrient cycling pathways;
- Decreased habitat value of infested waters;
- Decreased water quality;
- Decreased recreational opportunities;
- Increased safety concerns for swimmers; and
- Decreased property values.

Non-native species can be controlled through a variety of mechanisms, including mechanical and physical means (hand pulling, hand tools, bottom barrier, weed roller, mechanical cutters, and harvesters), biological controls and herbicides.

In response to the problem of invasive, non-native species entering Washington waters, laws have now been enacted requiring that all boats leaving a Washington boat launch be free of aquatic weeds and other debris, or otherwise risk being ticketed.

Aquatic vegetation management will likely take coordination on a larger scale to be effective. As a result, the City should work with landowners and neighboring jurisdictions to develop aquatic vegetation management plans on a large-scale basis.

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<sup>1</sup> Christensen, D.L., B.R. Herwig, D.E. Schindler, and S.R. Carpenter. 1996. Impacts of lakeshore residential development on coarse woody debris in north temperate lakes. *Ecological Applications* 6:1143-1149.

<sup>2</sup> Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile Chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.

Tabor, R.A., M.T. Celedonia, F. Mejia, R.M. Piaskowski, D.L. Low, B. Footen, and L. Park. 2004a. Predation of juvenile Chinook salmon by predatory fishes in three areas of the Lake Washington Basin. Miscellaneous report. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, WA.

### 3. Shoreline Parks, Recreation, and Open Space

#### *Public Parks*

Note: The Comprehensive Park, Open Space and Recreation Plan provides policies and planning for parks, open space and recreating within the City of Kirkland, including waterfront parks.

*Goal SA-18: Provide substantial recreational opportunities for the public in the shoreline area.*

With miles of shoreline, the City has preserved significant portions of its waterfront in public ownership as parks. Kirkland's waterfront parks are the heart and soul of the City's park system. They bring identity and character to the park system and contribute significantly to Kirkland's charm and quality of life. The 14 waterfront parks stretch from the Yarrow Bay wetlands to the south to Juanita Bay, Juanita Beach and O. O. Denny Parks to the north, providing Kirkland residents year-round waterfront access. Kirkland's waterfront parks are unique because they provide citizens a diversity of waterfront experiences for different tastes and preferences. Park activities and facilities include public docks and fishing access, boat moorage, boat launches, swimming, interpretative trails, and picnicking. Citizens can enjoy the passive and natural surroundings of Juanita Bay and Kiwanis Parks and the more active swimming and sunbathing areas of Houghton and Waverly Beach Parks.



**Houghton Beach Park**

*Policy SA-18.1: Acquire, develop, and renovate shoreline parks, recreational facilities, and open spaces that are attractive, safe, functional, and respect or enhance the integrity and character of the shoreline.*

While Kirkland is blessed with many extraordinary waterfront parks, we should never lose sight of capturing opportunities when additional waterfront property on Lake Washington becomes available. If privately held lakefront parcels adjacent to existing beach parks or at other appropriate locations become available, effort should be made to acquire these pieces. As new shoreline parks are acquired and developed, the ecological functions of the shoreline should be protected and enhanced.

*Policy SA-18.2: Encourage water-oriented activities and programs within shoreline parks.*

Kirkland's recreational programs provide opportunities for small craft programs such as canoeing/kayaking, sailing, rowing, and sail-boating. Programs oriented around non-motorized boating activities provide excellent opportunities to teach recreation skills emphasizing water and boating safety and should be expanded, where appropriate.

In addition, the City awards contracts to parties interested in occupying dock space in the Kirkland Marina and Second Avenue South Dock for commercial use. The City may also expand concession facilities within its parks.

These types of commercial recreational uses, which expand opportunities for the public to enjoy the shoreline, should be encouraged within the City's shoreline parks.

*Policy SA-18.3: Continue use of opened waterfront street ends for public access.*

Street ends are also wonderful opportunities to expand the public's access to the waterfront. The City has developed four street ends for the public's use and enjoyment. They are located along Lake Washington Boulevard at Street End Park, Settler's Landing, Fifth Avenue South and Second Street West. The City also has plans in place for development of the Lake Avenue West Street End Park.

*Policy SA-18.4: Explore opportunities for use and enjoyment of unopened street ends.*

Presently, two waterfront street ends, 4th Street West and 5th Street West, remain unopened for public use. The ability to use these street ends for public use is presently impacted by a lack of public access from the land to the street end. If the City decides to open the street end for public use, it should work with the community and neighboring residents to prepare and adopt a development and use plan.

*Policy SA-18.5: Ensure that development of recreational uses does not adversely impact shoreline ecological functions.*

The development of recreational facilities has the potential to adversely impact shoreline ecological functions, for instance by increasing the amount of physical access and activity as well as overwater coverage and motorized watercraft access. As a result, recreational uses shall be appropriately sited and planned to minimize any resultant impacts.

*Goal SA-19: Protect and restore publicly owned natural resource areas located within the shoreline area.*

*Policy SA-19.1: Manage natural areas within the shoreline parks to protect and restore ecological functions, values and features.*

Kirkland is fortunate to have two of Lake Washington's largest and most important wetland and wildlife resources in its public park system: Juanita Bay Park and the Yarrow Bay wetlands, both of which have been mapped as priority wetlands by the Washington Department of Fish and Wildlife (WDFW). Both the Yarrow Bay wetlands and Juanita Bay Park extending up Forbes Creek corridor provide excellent habitat for birds, amphibians, mammals and reptiles. The outlets for ~~four~~three of the most prominent streams within the City, Juanita Creek, Forbes Creek, ~~and~~ Yarrow Creek ~~and Denny Creek~~, are also located within the City's shoreline parks. These streams are known to support salmonids. In addition, the Forbes Creek corridor has been designated by WDFW as a priority "riparian zone" due to its high fish and wildlife density, species diversity, important fish and wildlife breeding habitat, important wildlife seasonal ranges, high vulnerability to habitat alteration, and presence of unique or dependent species.

Preserving wildlife habitat, water quality, and forested areas is an important aspect of good park resource management. The existence of these natural areas also offers a variety of opportunities for aesthetic enjoyment, and passive and low-impact recreational and educational activities.

In order to protect wildlife habitat within Juanita and Yarrow Bay, it may be necessary to manage watercraft access, such as establishing restricted areas or limiting vessel speeds or other operations.

*Policy SA-19.2: Promote habitat and natural resource conservation through acquisition, preservation, and rehabilitation of important natural areas, and continuing development of interpretive education programs.*

The City parks also present an opportunity to implement restoration activities to improve degraded wetlands and habitat, control the spread of noxious plants, and improve the water quality of streams. As noted in the *Final Kirkland Shoreline Analysis Report* (December 2006), the City has initiated several studies to address restoration opportunities within Juanita Beach Park and Juanita Bay Park. In addition, the City has adopted a 20-Year Forest Restoration Plan to restore Kirkland's urban forests by removal of invasive plants and planting native species for the sustainability of the forest and its habitat. The City has acquired properties within the shoreline area near the Yarrow Bay wetlands impacted by critical areas and will continue to explore similar acquisition opportunities. The Parks

Department has also established an interpretative program in Juanita Bay Park and will evaluate appropriate opportunities to expand this type of educational resource within natural areas.

*Goal SA-20: Use a system of best management practices and best available technologies in the construction, maintenance and renovation of recreational facilities located in the shoreline environment.*

The high visibility and use of Kirkland's waterfront parks require high levels of maintenance, periodic renovation, and security. Swimming beaches, piers, recreational moorage facilities, boat ramps, and shoreline walkways must be kept safe and in good condition for the public's enjoyment and use. Maintenance of these recreational facilities should be done in a way that minimizes any adverse effects to aquatic organisms and their habitats. Renovation of these areas also provides an opportunity to restore areas impacted by historical shoreline modifications such as alteration of shoreline vegetation, construction of bulkheads, and piers and docks.

*Policy SA-20.1: Incorporate salmon-friendly pier design for new or renovated piers and environmentally friendly methods of maintaining docks in its shoreline parks.*



**Marina Park pier with grated decking**

Overwater coverage and in-water structures can adversely impact ecological functions and ecosystem-wide processes. As the City renovates or constructs new overwater structures, it should incorporate impact minimization measures, such as minimizing widths of piers and floats, increasing light transmission through any overwater structures, enhancing the shoreline with native vegetation, improving shallow-water habitat, and reducing the overall number and size of pier piles, in order to minimize the impacts of these structures. Opportunities exist to reduce overwater coverage and in-water structures in a number of shoreline parks, including Juanita Beach Park, Waverly



Beach Park, the Lake Avenue West Street End Park, Marina Park, David E. Brink Park, Marsh Park, and Houghton Beach Park.

Kirkland contains a number of piers within its shoreline parks, including at Houghton Beach Park, Marsh Park, David E. Brink Park, Marina Park, Waverly Beach Park, Juanita Beach Park, Juanita Bay Park, Settler's Landing, and the Second Avenue Right-of-Way in the Downtown. To maintain these piers, replacement of the decking is needed on a routine basis. The City has obtained a Hydraulic Project Approval from the Washington Department of Fish and Wildlife to cover this maintenance activity and, as part of this permit, grating will be installed in lieu of existing solid boards when the boards are replaced, allowing for greater light transmission through these overwater structures.

*Policy SA-20.2: Minimize impacts to the natural environment and neighboring uses from boat launch facilities to the greatest extent feasible.*

Kirkland's public boat launch at Marina Park contains a one-lane facility for trailerable boats. This facility provides important access to Lake Washington, but has experienced several problems including poor traffic circulation and congestion. The City employs use regulations for this facility in order to minimize impact; these regulations are monitored under the Dock Masters program. Recently, A the trailer parking area is provided at was improved in-nearby Waverly Park. Continued management of boat trailer parking the facility should be maintained in order to minimize these impacts to the greatest extent feasible.

If, in the future, the boat launch at Marina Park were to relocate, the City should cooperate with other jurisdictions to assure that this regional need is addressed with regional participation and resources.

*Policy SA-20.3: Incorporate salmon-friendly landscape design practices in shoreline parks.*



### Nearshore native vegetation at Juanita Beach Park

The City's parks and natural areas are a reflection of the values of the Kirkland community. The Parks Department strives to ensure that the public landscape remains attractive, while meeting the expectations of our users and preserving our parks and natural spaces for generations to come.

Opportunities exist to improve nearshore native vegetation in a number of shoreline parks, including Juanita Beach Park, [O.O. Denny Park](#), Waverly Beach Park, the Lake Avenue West street end park, Marina Park, David E. Brink Park, Settler's Landing, Marsh Park, and Houghton Beach Park. Restoration activities could include such practices as native plant buffers at the shoreline edge, control of noxious and invasive species, implementation of sound horticultural practices, use of Integrated Pest Management (IPM) techniques, organic fertilizers, and natural lawn care practices.

Since 1998, the Kirkland Parks Department has been following an Integrated Pest Management (IPM) program. IPM is a sustainable approach to managing pests by combining cultural, mechanical, biological and chemical methods in a way that provides effective and efficient maintenance of the City's park system.

The objectives of the IPM policy are:

- Protect the health, safety and welfare of the environment and community.
- Provide efficient, cost effective maintenance of the City's park system using non-chemical controls whenever possible.
- Design new and renovate existing landscape areas that suit site conditions with sustainable maintenance practices.
- Restore, create and protect environmentally valuable areas such as wetlands, riparian areas, forests, meadows, and wildlife habitat.

The IPM decision making process brings into play multiple strategies that are utilized as tools to help implement the program, including (but not limited to):

- The use of sound horticultural practices to optimize plant health and suppress insects, disease and weed growth.
- Site appropriate design with the use of disease and drought tolerant native plants.
- The use of natural control agents that act as predators or parasites of pest species.
- The use of beneficial organisms that improve plant health by enhancing the soil quality.
- The use of a variety of tools, equipment and, most importantly, people to assist with pest control.

The long-range goal of this program is for the parks and open spaces to be pesticide-free.

The Kirkland Parks Department is undertaking efforts to control invasive vegetation, including eradication and replanting with native vegetation, within Juanita Bay Park, under the recommendations contained within the Juanita Bay Park Vegetation Management Plan prepared in 2004 by Sheldon and Associates, Inc. It divides the park into 10 management areas by habitat type that are distributed among three landscape zones based on location and historic use. Goals and objectives were established for each landscape zone, and then treatments were suggested for each management area within the landscape zones. The primary objective for the less developed landscape zones is removal of invasive species and replacement with native species, as well as supplementation of existing native vegetation to increase species and habitat diversity.

The Kirkland Parks Department has also initiated a program to install water intakes in Lake Washington for use as irrigation of Kirkland Parks. The water withdrawn from Lake Washington by Parks would be used to irrigate eight parks, which are currently provided with irrigation water from the City's potable water system. In conjunction with this project, the Parks Department plans to install vegetation along the shoreline edge.



*Policy SA-20.4: Minimize impacts from publicly initiated aquatic vegetation management efforts.*

The Kirkland Parks Department undertakes mechanical aquatic vegetation management efforts at both Houghton and Waverly Beach Parks to control milfoil. After attempts to use biological and mechanical means to control aquatic invasive species at Juanita Bay Park, the Kirkland Parks Department has initiated an herbicide application. Aquatic vegetation management efforts can have potential negative impacts relevant to the Lake Washington environment and therefore control efforts should be designed to use a mix of various methods with emphasis on the most environmentally sensitive methods.

*Policy SA-20.5: Control non-native species which impact Kirkland's shoreline.*

The City Parks Department periodically undertakes programs to control non-native species along the shoreline. For instance, the Parks Department has planned improvements within Juanita Beach Park to reduce waterfowl impacts at this park. Programs aimed at controlling impacts associated with non-native species use of the waterfront should continue. Any programs initiated should be designed to minimize any potential impacts to native species.

*Policy SA-20.6: Implement low-impact development techniques, where feasible, in development of or renovations to recreational facilities along City shorelines.*

Low-impact development strives to mimic nature by minimizing impervious surface, infiltrating surface water through biofiltration and bio-retention facilities, retaining contiguous forested areas, and maintaining the character of the natural hydrologic cycle. Utilizing these practices can have many benefits, including improvement of water quality and reduction of stream and fish habitat impacts. The Parks Department has successfully incorporated low-impact development techniques with park development efforts, such as Waverly Park and Watershed Park. These techniques should also be considered for any improvements within shoreline parks.

Opportunities exist to reduce impervious surface coverage in a number of shoreline parks, including Waverly Beach Park, Street End Park, and Marsh Park and LID should be explored as a means to reduce this coverage.

*Policy SA-20.7: Reduce or modify existing shoreline armoring within Kirkland's shoreline parks to improve and restore the aquatic environment.*

Bulkheads or other types of shoreline armoring can adversely impact ecological functions and ecosystem-wide processes. Kirkland contains a number of structural shoreline stabilization measures, such as concrete or rip-rap bulkheads, within its shoreline parks. Opportunities exist to reduce shoreline armoring in a number of shoreline parks, including [O.O. Denny Park](#), Waverly Beach Park, Marina Park, David E. Brink Park, Settler's Landing, Marsh Park, and Houghton Beach Park. If repair or replacement is needed to these existing structures, the Parks Department should explore the use of nonstructural measures. Further, new development within the City's parks should be located and designed to eliminate the need for new shoreline modification or stabilization.

*Goal SA-21: Undertake restoration opportunities to improve shoreline ecological functions and ecosystem-wide processes where feasible.*

The City's shoreline parks present opportunities for restoration that would improve ecological functions, including reduction of shoreline armoring, reduction of overwater cover and in-water structures, improvement of nearshore native vegetation cover, reduction of impervious surface coverage, control of invasive vegetation, and improvement of fish passage where possible.

In addition, many projects planned under the Surface Water Management Utility would provide wetland enhancement, fish passage improvement, bioengineered streambank erosion, restoration of armored streambanks, flood abatement, and water quality improvement. While many of these projects are planned "upstream" of shoreline jurisdiction, they can still have positive effects on the shoreline environment.

#### 4. Shoreline Transportation

Note: The Transportation Chapter of the Comprehensive Plan contains a set of goals and policies relating to vehicular, bicycle and pedestrian circulation.

##### *Streets*

*Goal SA-22: Provide for safe and efficient movement of vehicles, bicycles and pedestrians within the shoreline area, while recognizing and enhancing the unique, fragile and scenic character of the shoreline area.*

*Policy SA-22.1: Maintain a roadway network which will efficiently and safely provide for vehicular circulation within the shoreline area.*

The existing vehicular circulation system in Kirkland's shoreline area is largely complete, with several major roadways located within the shoreline jurisdiction, including portions of Lake Washington Boulevard NE/Lake Street South and Market Street/98th Avenue NE, as well as neighborhood access streets and driveways. The City should undertake improvements, as necessary, to address needed safety, capacity or efficiency improvements within the shoreline area.

*Policy SA-22.2: Enhance Lake Washington Boulevard NE and Lake Street South to improve their function for scenic views and recreational activities, as well as for local access and as a commute route.*

Lake Washington Boulevard is designated as a major arterial and provides the major north-south route through Kirkland south of the Central Business District and west of I-405. The Boulevard also provides local access for a substantial number of residential developments and businesses. The Boulevard functions as a major pedestrian and bicycle corridor, serving waterfront park users, joggers, strollers, and Downtown shoppers. The City should continue to manage this network to meet the needs of the broad variety of users, while maintaining the scenic quality of this roadway network.

Traffic along Lake Washington Boulevard and Lake Street South has increased over time, restricting local access to and from these streets and creating noise, safety problems, and conflicts for pedestrians, bicyclists, and adjacent residents. Solutions to these problems should be sought which recognize that these streets have a scenic and recreational function which is as important as their function as a commute route. Improvements to these streets should help accommodate their broader amenity function in such a manner that the safety of all the diverse users is enhanced. Accordingly, the following improvements would be desirable:

- ' Widening of sidewalks or development of landscape strips or landscaped median islands to separate traffic and provide pedestrian safety.

- Installation of pedestrian crossings at intersections and adjacent to waterfront parks where safety considerations allow such installation.

- Continuation and widening of bicycle lanes.

- Limitations on the number of new curb cuts and consolidation of driveways, where possible.

- Restrictions on turning movements by installation of c-curbs or other techniques, where needed.

*Policy SA-22.3: Design transportation improvement projects within the shoreline to avoid, minimize and mitigate environmental impacts.*

Transportation facilities should be designed to have the least possible effect on shoreline features. When planning transportation facilities, both public and private, the environmental impacts of the facility need to be evaluated and minimized, and appropriate mitigation included. Environmental impacts of transportation facilities and services can

include wetland and stream encroachment, vegetation removal, air quality deterioration, noise pollution, and landform changes.

*Policy SA-22.4: Design transportation improvement projects to maximize opportunities to improve existing shoreline ecological functions.*

Transportation improvement projects located within the shoreline should include provisions for shoreline vegetation restoration, fish and wildlife habitat enhancement, and low-impact development techniques, where practicable and feasible.

*Policy SA-22.5: Design transportation improvement projects to enhance scenic amenities and reflect neighborhood character.*

Roadways should be designed to maximize views of the lake, where feasible. Shoreline roadways should also be designed with pedestrian improvements, such as widened sidewalks, and amenities such as benches or view stations and public sign systems that identify significant features along the shoreline such as historic or scenic features, parks and public access easements. In addition, appropriate landscaping and street tree selection should be used for rights-of-way with public views to maintain the views as the vegetation matures.

*Policy SA-22.6: Incorporate best management practices into road and utility maintenance activities.*

Road maintenance activities are necessary to clean out sediment and debris from drainage systems, which provides benefits to salmon habitat by preventing pollutants and sediments entrapped in stormwater facilities from entering surface or groundwater. The activities can also have adverse water quality impacts, directly affecting aquatic species. In order to minimize any potential adverse impacts, the City road maintenance crews should continue to use best management practices, such as those incorporated into the Regional Road Maintenance ESA Program Guidelines, to guide their maintenance activities. The Regional Road Maintenance ESA Program Guidelines (Regional Program) describe physical, structural, and managerial best management practices designed so that when they are used, singularly or in combination, they reduce road maintenance activities' impacts on water and habitat.

#### *Pedestrian/Bicycle Circulation*

*Goal SA-23: Provide the maximum reasonable opportunity for the public to view and enjoy the amenities of the shoreline area.*

*Policy SA-23.1: Provide a public access system that is both physical and visual, utilizing both private and public lands, consistent with the natural character, private rights and public safety.*

Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the State, and to view the water and the shoreline from adjacent locations. Public access is a key component of the Shoreline Management Act and is one of the preferred uses in the shoreline area and should be encouraged, both in private and public developments and public acquisition.

Developing public access to the shoreline area has long been a priority of the City. Except for single-family residential areas or environmentally critical sensitive areas, the City has sought development to provide public access to the water's edge and along the shoreline as much as possible. Based on this approach, the City has made significant progress towards establishing continuous pedestrian access along the water's edge along portions of the shoreline.

In addition to these public access easements, the City has, over time, acquired many shoreline properties and designated these properties for park/open space and developed access trails.

*Policy SA-23.2: Enhance and maintain pedestrian and bicycle infrastructure within the shoreline area.*

Pedestrian and bicycle movement on and off roadways in the shoreline area should be encouraged wherever feasible. Access points to and along the shoreline as well as shoreline recreational facilities should be linked by pedestrian and bicycle pathways developed as close to the water's edge as reasonable.

The City should work to infill key gaps in existing shoreline access by connect existing pathways and linking existing access points to and along the shoreline, where feasible. In addition, the City should work to complete bicycle improvements by infilling gaps in existing routes and making any necessary safety improvements.

The following identifies some of the key opportunities available to improve public access. Some of the sites are located within the shoreline area, while others located outside the shoreline jurisdiction are represented since they provide an important connection to the shoreline. These connections should be sought, either through a required condition of development, or, where appropriate, through use of public funds to acquire and develop public pedestrian walkways:

”Connecting Juanita Bay Park and Juanita Beach Park. The City should seek to complete a public pedestrian walkway along the shoreline from Juanita Bay Park to Juanita Beach Park. Because of the presence of wetlands, the walkway should be designed so as to cause the least impact. The City should also pursue improvements to connect the existing bicycle lanes along Market Street to those on Juanita Drive.

”Juanita Bay Park – provide an additional connection from the causeway to the lake if protection of the natural features can be reasonably ensured.

—Forbes Valley Pedestrian Facility – provide a sidewalk adjacent to Forbes Creek Drive to connect Crestwoods Park and Juanita Bay Park.

—9th Street West – between Market Street and 20th Street across Juanita Bay Park should be improved for both pedestrians and bicycles.

—10th Street West – connecting Kiwanis Park and Juanita Bay Park.

—Waverly Way – should be improved with sidewalk on the west side of the street. View stations at the unopened street ends at 4th Street West and 5th Street West along Waverly Way should also be considered.

—Lake Avenue West Street End Park – complete a pedestrian pathway across Heritage Park from Waverly Way to the Street End Park.

—In Downtown south of Marina Park. In this area, buildings and parking lots interrupt the shoreline trail system that has been established on adjoining properties. Whenever possible, this shoreline trail system should be completed, in order to build upon this community amenity and open space.

—Lake Washington Boulevard NE – gaps in the existing public waterfront trail with connections to the Boulevard should be a required element of all shoreline developments other than single-family homes. Public use areas also should be encouraged adjacent to the westerly margin of Lake Washington Boulevard. The Boulevard is now a popular path for pedestrians, joggers, and bicyclists, and the continued improvement of this corridor as a promenade with wide sidewalks and public use areas, such as benches or view stations, pedestrian scale lighting, and public sign systems, would be a significant public asset.

—Juanita Drive— provide safe bicycle and pedestrian facilities along Juanita Drive while maintaining the corridor’s unique natural landscape and protecting the natural environment.

The City of Kirkland [Transportation Master Plan](#) and Active Transportation Plan (ATP), together with any additional routes identified in Neighborhood Plans, maps most of the bicycle and pedestrian facilities planned for future development. The Capital Improvement budget process prioritizes when routes will receive funding for improvements.

*Policy SA-23.3: Require public access to and along the water’s edge and waterfront public use areas with new development or substantial redevelopment, except in limited circumstances.*

In general, new development or substantial redevelopment should be required to install a public trail along the entire length of the waterfront with connections to Lake Washington Boulevard at or near each end. Areas which are available for other public waterfront activities also should be strongly encouraged. A public trail should not be

required associated with the construction of an individual new single-family residence or where it is demonstrated to be infeasible due to impact to the shoreline environment or due to constitutional limitations.

*Policy SA-23.4: Minimize impacts on adjacent uses and the natural environment through the appropriate design of public access. Public access should also be designed to provide for public safety.*

Developments required to provide public pedestrian access should be designed to minimize the impacts of the public access to adjoining properties, where possible, such as visually or physically separating the public pedestrian access from adjacent private spaces, or by placing an intervening structural or landscape buffer. The City may permit the establishment of reasonable limitations on the time, extent, and nature of public access in order to protect the natural environment and the rights of others.

In addition, public access trails should be located and designed to assure that users are visible and that pathways are well illuminated, if open in hours of darkness.

Public access through critical sensitive-areas should be designed to avoid or minimize impacts to critical sensitive-areas such as wetlands or streams or their protective buffers.

*Policy SA-23.5: Cooperate on interagency and public-private partnerships to preserve and enhance water trails along Kirkland's shoreline where feasible.*

The Lakes-To-Locks Water Trail is a day use trail with over 100 public places in a series of lakes and rivers extending from Issaquah to Elliott Bay to launch and land small non-motorized boats. The Lakes-to-Locks Water Trail contains nearly a dozen launch, landing and rest sites along Kirkland's Shoreline. The City should continue to participate in this type of partnership to increase access and use of the City's shoreline.

#### *Air and Water Access*

*Goal SA-24: Provide opportunities for transportation alternatives, such as access by land or water.*

*Policy SA-24.1: Explore opportunities to establish passenger-only ferry service along Kirkland's shorelines.*

As the roads and highways in the region have increasingly reached full capacity, there has been renewed interest in re-establishing waterborne transportation in Lake Washington, particularly passenger-only ferries. King County has established a countywide Ferry District, which plans to consider the delivery of passenger-only ferry services serving destinations in King County, including a route between Kirkland and Seattle. The City should participate in this effort and ensure that issues affecting the businesses and residents of Kirkland, such as location, traffic and parking, and the shoreline environment, are adequately addressed.

*Policy SA-24.2: Allow limited floatplane moorage in commercial shoreline areas.*

Floatplanes can be used for both commercial and recreational purposes. Commercial operations can include a variety of activities including air charter and scheduled air operations. These activities are water-dependent and should be permitted within high intensity shoreline commercial districts in limited circumstances, if evaluated through a public review process and where it has been determined that the facility or operation has been designed to minimize impacts, including impacts on native fish and wildlife and their habitat, as well as impacts to shoreline views and community character. Further, the operation of these facilities should ensure protection of adjacent development and uses as well as human safety, including limiting noise and other impacts on residential uses. Floatplane facilities should be located so they do not interfere with public swimming beaches and also maintain or safe boating corridors. The floatplane operations should comply with State and federal requirements.

*Policy SA-24.3: Limit helicopter landing facilities in the shoreline area.*

Helicopter operations are not water-dependent and can include significant environmental issues such as noise pollution. As a result, helicopter landing facilities should not be permitted in the shoreline area, except as needed for emergency medical airlift.

## 5. Shoreline Utilities

*Goal SA-25: Manage the provision of public and private utilities within the shoreline area to provide for safe and healthy water and sanitary sewer service, while protecting and enhancing the water quality and habitat value of the shoreline.*

*Policy SA-25.1: Locate new utilities and related appurtenances outside of the shoreline area, unless this location is reasonably necessary for the efficient operation of the utility.*

Utilities are services that produce and carry electric power, gas, sewage, water, communications and oil. The provision of these services and the appurtenances associated with them can create substantial impacts on the landscape and the functioning of the natural ecosystem. To minimize potential impacts, these facilities should be located outside of the shoreline area, and in particular, outside of the aquatic environment, where feasible. If necessary within the shoreline, utility facilities should be located and designed in a manner that preserves the natural landscape and shoreline ecology, and minimizes conflicts with present and planned land uses.

Alternative energy use such as solar- and wind-based energy systems should be encouraged within the shoreline environment, provided that any potential adverse impacts are minimized.

*Policy SA-25.2: Minimize impacts from the location, design, and maintenance of utility facilities located within the shoreline.*

Careful planning and design is required to address impacts such as soil disturbance and intrusion on the visual setting. Potential adverse impacts should be minimized through the location, design and construction techniques used. For instance, where utility systems cross shoreline areas, clearing for installation or maintenance should be kept to a minimum width necessary to minimize impacts to trees and vegetation. Utilities should also be properly installed and maintained to protect the shoreline environment and water from contamination. The City should require location of utility lines prior to construction to avoid damaging the lines, incurring biological impacts, during construction.

Upon completion of utility installation or maintenance projects on shorelines, the shoreline area should be restored to pre-project configuration, replanted with native species and provided with maintenance care until the newly planted vegetation is established.

Even with revegetation, planting restrictions may limit the species that are replanted. As a result, existing functions may not be able to be fully restored. For this reason, utility corridors should be located outside of the shoreline jurisdiction, where possible.

*Policy SA-25.3: Encourage consolidation of utilities within existing rights-of-way or corridors.*

In order to minimize the extent of shoreline modified by improvements, utility facilities should utilize existing transportation and utility sites, rights-of-way and corridors whenever practicable, rather than creating new corridors in the shoreline environment. Joint use of rights-of-way and corridors in shoreline areas should be encouraged.

*Policy SA-25.4: Locate utility facilities and corridors to protect scenic views and prevent impacts to the aesthetic qualities of the shoreline.*

Utility lines and facilities, when they must be placed in a shoreline area, should be located so that they do not obstruct or destroy scenic views. Whenever feasible, these facilities should be placed underground, or designed to do minimal damage to the aesthetic qualities of the shoreline area.

## 6. Shoreline Design

*Goal SA-26: Maintain and enhance Kirkland's orientation to and linkages with Lake Washington.*

*Policy SA-26.1: Preserve public view corridors along the City's street networks and public parks.*

The street and waterfront park system provides a large number of local and regional views. The view corridors that lie within the public domain are valuable for the beauty, sense of orientation, and identity that they provide to Kirkland. The views also maintain the visual connection and perception of public accessibility to the lake. As a result, these views should be kept free of obstruction.

*Policy SA-26.2: Locate and design new development to provide view corridors of Lake Washington from Lake Washington Boulevard and Lake Street South south of the Central Business District.*

Kirkland's history, identity and character are strongly associated with its proximity and orientation to Lake Washington. Lake Washington Boulevard and Lake Street are the streets from which most residents and visitors view the lake, providing a lasting visual impression and helping to establish the visual identity of the City. As a result, visual access to Lake Washington from Lake Washington Boulevard and Lake Street should be an integral element in the design of development along the west side of these streets. Both public and private development in these areas should be designed to include an open area that provides an unobstructed view of the water beyond. View corridors should be situated on the property to provide the widest view of the lake. Existing structures in some areas block views of the lake. with renovation of existing structures, opening up of views should be encouraged.

The Central Business District (CBD) is a community activity area focused around its historic waterfront with extensive public use and views of the waterfront provided by public parks, street ends, public and private marinas, public access piers and shoreline public access trails. Because of this configuration and the desire to provide continuous pedestrian-oriented retail activity at the street, view corridors across private properties in the CBD should not be required.

*Policy SA-26.3: Explore opportunities to provide visual and pedestrian access from Central Way and Lake Street with redevelopment efforts.*

The City should explore opportunities to participate in a public/private partnership to redevelop the commercial block between Kirkland Avenue and Central Way with visual and pedestrian access from a series of at-grade pedestrian connections from Central Way and Lake Street which would open to a large public plaza constructed west of the buildings to enhance the Downtown's lake front setting.

*Policy SA-26.4: Design water-enjoyment uses to provide significant opportunities for public enjoyment of the aesthetic, natural and recreational amenities of the shoreline.*

Water-enjoyment uses, such as restaurants, hotels or other mixed-use commercial projects, bring substantial numbers of people to the shoreline and provide opportunities for the public to enjoy shoreline amenities. These uses are encouraged in urban mixed areas, such as Kirkland's Downtown area, and should be designed to respond to their shoreline location through a variety of measures, including the following:

- ”Architectural or site design elements that connect visually or physically to the lake.
- ”Orientation of views and windows to the lake.
- ”Orientation of entries, sight lines, buildings, pathways and other design elements to the shoreline.
- ”Incorporating interpretative signs.
- ”Locating service areas away from the shoreline.
- ”Incorporating substantial landscaping and open space.



”Providing outdoor seating or gathering places along the shoreline.

”Designing signs to be compatible with the aesthetic quality of the shoreline.

Enhancement of views should not take precedence over vegetation conservation and, as such, removal of vegetation necessary for shoreline function should not be allowed in cases where views are partially impaired by existing vegetation. New landscaping should be appropriately designed to preserve designated view corridors.

## **7. Shoreline Archaeological, Historic and Cultural Resources**

*Goal SA-27: Identify, protect, preserve, and restore important archeological, historical, and cultural sites located in the shoreline area.*

Kirkland's shoreline area has a long history, dating back to use of Juanita Bay by Native Americans and use of Lake Washington for fish harvest by the Muckleshoot Tribe. The shoreline area also contains many historic structures, including residential structures and vessels moored along the City's shoreline.

*Policy SA-27.1: Prevent destruction or damage to historic, cultural, scientific or educational resources located along the shoreline.*

Steps should be taken to identify, recover and preserve any artifacts or other resources that may exist along the City's shoreline. The City should work with property owners and tribal, State, and federal governments as appropriate to assess sites and make arrangements to preserve historical, cultural and archaeological values in advance of planned development. Proposed development should be designed and operated to be compatible with continued protection of the historic, cultural or archaeological resource. If development occurs in areas documented to contain archaeological resources, a site inspection or evaluation by a professional archaeologist in coordination with affected tribes should be required prior to issuance of permits. If archaeological resources are uncovered during excavation, work on the site should immediately stop and notification to the City, the State Office of Archaeology and Historic Preservation, and affected tribes should be made to determine the appropriate course of action.

*Policy SA-27.2: Encourage educational projects and programs that foster an appreciation of the importance of shoreline history.*

Site development plans should incorporate measures for historic, cultural and archaeological resource preservation, restoration and education with open space or recreation areas whenever possible. Wherever feasible, shoreline development should recognize the former use of much of the City's shoreline area for such uses as boat yards, ferry landings and industrial sites.

## 8. Restoration Planning

*Goal SA-28: Implement the projects, programs and plans established within the Restoration Plan as funding and staffing resources permit.*

Restoration planning is an important component of the environmental protection policy of the Shoreline Management Act. Continued improvement of shoreline ecological functions requires a comprehensive watershed approach that combines upland and shoreline projects and programs. The City of Kirkland has adopted a Restoration Plan for the City's shorelines that provides the framework for the community's efforts to restore degraded portions of the City's shorelines.

The Restoration Plan provides multiple programmatic and site-specific opportunities for restoring the City's shoreline areas that outline opportunities to achieve a net benefit in ecological conditions. Ecological benefits that would be realized by implementing this plan include: increased use of soft approaches for shoreline stability and corresponding reductions in low-functioning hard shorelines; increased organic inputs, habitat, and filtration from shoreline riparian vegetation; improved wildlife corridor connectivity; improved habitat for salmon; displacement of noxious vegetation; and eventual introduction of woody debris.

*Note: Only text in track changes are the proposed amendments. Other underlines are links to other definitions in the Kirkland Zoning Code.*

## Chapter 5 – DEFINITIONS

### Sections:

[5.05](#) User Guide

[5.10](#) Definitions

### 5.05 User Guide

The definitions in this chapter apply for this code. Also see definitions contained in Chapter [83](#) KZC for shoreline management, ~~Chapter 90 KZC for critical areas: wetlands, streams, minor lakes, fish and wildlife habitat conservation areas and frequently flooded areas~~, Chapter [95](#) KZC for tree management and required landscaping, and Chapter [113](#) KZC for cottage, carriage and two/three-unit homes that are applicable to those chapters.

### 5.10 Definitions

#### **.185 Culvert**

An open-ended cylindrical structure generally used for the conveyance of storm waters or streams that allows water to flow under a road, railroad, trail, or similar obstruction from one side to the other side.

#### **.326 Frequently Flooded Areas**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, all~~ All areas shown on the Kirkland critical areas maps and as noted on effective FEMA maps as being within a 100-year floodplain, as well as all areas of special flood hazard regulated by Chapter [21.56](#) KMC. (Ord. 4551 § 4, 2017; Ord. 4252 § 1, 2010)

#### **.328 Geologically Hazardous Areas**

Landslide hazard areas, erosion hazard areas and seismic hazard areas. ~~For properties within jurisdiction of the Shoreline Management Act, see Chapter 83 KZC.~~ (Ord. 4643 § 4, 2018; Ord. 4252 § 1, 2010)

#### **.389 Impervious Surface**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise; impervious surface is a placed, created, constructed or compacted hard surface area which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A non-vegetated surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under pre-development conditions. Common impervious surfaces include, but are~~

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~~not limited to, rooftops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam materials or other surfaces which similarly impede the natural infiltration of surface water or storm water. Impervious surfaces do not include pervious surfaces as defined in this code. (Ord. 4551 § 4, 2017)~~

**Impervious surface** means a hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions before development; or that causes water to run off the surface in greater quantities or at an increased rate of flow compared to the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof, walkways, patios, driveways, parking lots, or storage areas, areas that are paved, graveled or made of packed or oiled earthen materials or other surfaces that similarly impede the natural infiltration of surface water or stormwater. Open, uncovered flow control or water quality treatment facilities shall not be considered impervious surfaces. Impervious surfaces do not include pervious surfaces as defined in this chapter.

#### **.410 Institutional Uses**

The following uses: [schools](#), [churches](#), colleges, universities, [hospitals](#), parks, governmental facilities and [public utilities](#). [Also see Chapter 83 KZC for properties within jurisdiction of the Shoreline Management Act.](#) (Ord. 4252 § 1, 2010; Ord. 4030 § 1, 2006)

#### **.490.5 Low Impact Development (LID)**

A storm water management and land development strategy applied at the parcel and the subdivision scale that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation and transpiration by ~~emphasizes~~ emphasizing conservation, and the use of on-site [natural features](#), [site planning](#), and distributed stormwater management practices that are integrated into a project design ~~integrated with engineered, small scale hydrologic controls to more closely mimic predevelopment hydrologic functions.~~ (Ord. 4437 § 1, 2014; Ord. 4350 § 1, 2012)

#### **.513 Maximum Units per Acre**

Within RSA and PLA 3C zones, the maximum allowed number of dwelling units shall be computed by multiplying the gross area of the subject property by the applicable residential density number per acre shown on the Zoning Map. In the RSA zone, for the purpose of calculating the maximum units per acre, all road dedications and vehicular access easements and tracts shall be included in the calculation for density. The

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maximum development potential requirements of Chapters [853](#) and 90 KZC shall apply. (Ord. 4333 § 1, 2011; Ord. 4196 § 1, 2009)

#### **.529 Minor Improvements**

~~Private walkways~~[Walkways](#), pedestrian bridges, benches, and similar features, as determined by the [Planning Official](#). (Ord. 4551 § 4, 2017)

#### **.611 Ordinary High Water Mark**

~~For properties within the jurisdiction of the KZC. Otherwise, the~~[The](#) mark that will be found on all lakes and [streams](#) by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting [upland](#), in respect to vegetation, as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology; provided, that in any area where the OHWM cannot be found, the OHWM adjoining fresh water shall be the line of mean high water, or as amended by the state. For Lake Washington, the OHWM corresponds with a lake elevation of 18.5 feet, based on the NAVD 88 datum. (Ord. 4551 § 4, 2017)

#### **.612 Ordinary High Waterline or High Water Mark**

The mark on the shores of all waters that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in ordinary years, as to mark upon the soil or vegetation a character distinct from that of the abutting [upland](#); provided, that in any area where the [ordinary high waterline](#) cannot be found, the [ordinary high waterline](#) adjoining freshwater shall be the elevation of the mean annual flood. This term has the same meaning as "[high waterline](#)." ~~See Chapter 83 KZC for the term "ordinary high water mark" applicable to properties within jurisdiction of the Shoreline Management Act.~~ (Ord. 4252 § 1, 2010)

#### **.651 Pervious Surface**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, as~~[As](#) opposed to [impervious surfaces](#), these are surfaces that allow water to infiltrate into the ground. [Pervious surfaces](#) include pervious paving, lawn, [landscaping](#), bare ground, wood chips, pasture and [native vegetation](#) areas. For the purposes of compliance with storm water [development regulations](#), impervious and [pervious surfaces](#) are defined pursuant to Chapter [15.52](#) KMC. (Ord. 4551 § 4, 2017)

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#### **.748 Qualified Critical Area *and Shorelines* Professional**

A qualified professional for critical areas and shorelines projects shall have a minimum of five (5) years of experience in the pertinent scientific discipline and experience in preparing critical area or shoreline reports.

A qualified critical area or shorelines professional must have obtained a Bachelor's degree in biology, engineering, geology, environmental studies, fisheries, geomorphology, or a related field. The Planning Official may require professionals to demonstrate the basis for qualifications and shall make the final determination as to qualifications. A qualified professional must meet the following specific professional requirements, dependent upon the type of critical area on the subject property or shoreline project that is proposed:

1. Wetlands and streams qualified professional:
  - a. Shall be certified as a professional wetland scientist; and
  - b. Have at least five (5) years of full-time work experience delineating wetlands using the state or federal manuals, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans; and
2. Fish and wildlife habitat conservation areas qualified professional: A professional biologist, with a degree in biology or a related degree, with experience preparing reports for the relevant type of species.
3. Geologically hazardous area qualified professional: A professional engineer, geologist or hydrogeologist, licensed in the state of Washington, with experience analyzing geologic, hydrologic, and groundwater flow systems, and who has experience preparing reports for the relevant type of hazard.
4. Shorelines qualified professional: A professional engineer, geologist or hydrologist, licensed in the State of Washington, with knowledge of shoreline stabilization measures, a biologist, with a degree in biology or a related degree, and including a professional wetland scientist, a certified arborist, or a shoreline designer or other consultant familiar with lakeshore processes and shore stabilization. (Ord. 4551 § 4, 2017)

#### **.760 Repair and Maintenance**

For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, An an activity that restores the character, scope, size, and design of a structure to its previously authorized and undamaged condition. Activities that drain, dredge, fill, flood, or otherwise alter critical areas are not included in



*Note: Only text in track changes are the proposed amendments. Other underlines are links to other definitions in the Kirkland Zoning Code.*

this definition. Examples of repair and maintenance include painting; replacement of siding, windows, or roofing; changing doors to windows and windows to doors, but not including reconstruction or replacement of the entire structure, including exterior bearing walls. (Ord. 4551 § 4, 2017)

#### **.883.15 Species of Local Importance**

~~Those species of local concern designated by the City in KZC 90.95(8) due to their population status or their sensitivity to habitat manipulation. (Ord. 4551 § 4, 2017)~~

#### **.895 Stream**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, areas~~  
Areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round, provided there is evidence of at least intermittent flow during years of normal rainfall. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel, or are created for the purposes of stream mitigation. (Ord. 4551 § 4, 2017; Ord. 4252 § 1, 2010)

#### **.916 Structure Setback**

A minimum required distance from a designated or modified critical area buffer within which no above ground structures may be constructed, except as provided in Chapters 83 and 90 KZC. (Ord. 4551 § 4, 2017)

#### **.947 Upland**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise,~~  
~~generally~~ Generally described as the dry land area above and landward of the OHWM, but not including wetlands. (Ord. 4551 § 4, 2017)

#### **.977 Watershed**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, a A~~  
region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water. (Ord. 4551 § 4, 2017)

#### **.985 Wetland**

*Note: Only text in track changes are the proposed amendments. Other underlines are links to other definitions in the Kirkland Zoning Code.*

~~For properties within jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise,~~

~~“wetlandWetland”~~ or ~~“wetlands”~~ means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. ~~Wetlands~~ generally include swamps, marshes, ~~bogs~~, and similar areas. ~~Wetlands~~ do not include those artificial ~~wetlands~~ intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those ~~wetlands~~ created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. ~~Wetlands~~ may include those artificial ~~wetlands~~ intentionally created from nonwetland areas to mitigate conversion of ~~wetlands~~. (RCW [36.70A.030](#)) (Ord. 4551 § 4, 2017; Ord. 4252 § 1, 2010)

#### **.986 Wetland Category or Wetland Rating**

~~For properties within the jurisdiction of the Shoreline Management Act, see Chapter 83 KZC. Otherwise, the~~

~~The~~ classification of ~~wetlands~~ according to the Washington State ~~Wetland Rating~~ System for Western Washington (Department of Ecology 2014, or as revised). This document contains the definitions, methods and a rating form for determining the categorization of ~~wetlands~~ below:

1. Category I. Category I ~~wetlands~~ are: (a) relatively undisturbed estuarine ~~wetlands~~ larger than one (1) acre; (b) ~~wetlands~~ of high conservation value that are identified by scientists of the Washington Natural Heritage Program/DNR; (c) ~~bogs~~; (d) mature and old-growth ~~forested wetlands~~ larger than one (1) acre; (e) ~~wetlands~~ in coastal lagoons; (f) interdunal ~~wetlands~~ that score eight (8) or nine (9) habitat points and are larger than one (1) acre; and (g) ~~wetlands~~ that perform many functions well (scoring 23 points or more). These ~~wetlands~~: (a) represent unique or rare ~~wetland~~ types; (b) are more sensitive to disturbance than most ~~wetlands~~; (c) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or (d) provide a high level of functions.
2. Category II. Category II ~~wetlands~~ are: (a) estuarine ~~wetlands~~ smaller than one (1) acre, or disturbed estuarine ~~wetlands~~ larger than one (1) acre; (b) interdunal ~~wetlands~~ larger than one (1) acre or those found in a mosaic of ~~wetlands~~; or (c) ~~wetlands~~ with a moderately high level of functions (scoring between 20 – 22 points).
3. Category III. Category III ~~wetlands~~ are: (a) ~~wetlands~~ with a moderate level of functions (scoring between 16 and 19 points); (b) can often be adequately replaced with a well-planned ~~mitigation~~ project; and (c) interdunal ~~wetlands~~ between 0.1 and one (1) acre. ~~Wetlands~~ scoring between 16 and 19 points

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generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II [wetlands](#).

4. Category IV. Category IV [wetlands](#) have the lowest levels of functions (scoring fewer than 16 points) and are often heavily disturbed. These are [wetlands](#) that we should be able to replace, or in some cases to improve. However, experience has shown that replacement cannot be guaranteed in any specific case. These [wetlands](#) may provide some important functions, and should be protected to some degree.

(Ord. 4551 § 4, 2017)

**~~.988-07.990- Wetland of High Conservation Value~~**

Wetlands identified here, <https://www.dnr.wa.gov/NHPwetlandviewer>, by the Washington Natural Heritage Program as important ecosystems for maintaining plant diversity in our state. These wetlands are classified as Category I wetlands by the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington.

**~~.992 Wildlife-Habitat and Species of Local Importance~~**

- The [habitats and species](#) present within the City which are ~~include coho salmon, sockeye/kokanee salmon, and cutthroat trout, bald eagle, pileated woodpecker and great blue heron based on identified~~ in the [Washington](#) Department of Fish and Wildlife's ~~list of State Priority~~ [Habitats and Species \(PHS\)](#) list and maps ~~, and Not included in the list are species within the shoreline jurisdiction regulated under Chapter 83 KZC. (Ord. 4551 § 4, 2017)~~
- ~~Any species of local concern designated by the City pursuant to KZC 90.95(8) due to their population status or their sensitivity to habitat manipulation, which will be listed here.~~

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STREAMS, MINOR LAKES, FISH AND WILDLIFE  
HABITAT CONSERVATION AREAS, AND  
FREQUENTLY FLOODED AREAS

## **Chapter 90 – CRITICAL AREAS: WETLANDS, STREAMS, MINOR LAKES, FISH AND WILDLIFE**

### **HABITAT CONSERVATION AREAS, AND FREQUENTLY FLOODED AREAS**

#### **Sections:**

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- 90.10 Purpose
- 90.15 Applicability
- 90.20 Critical Areas Maps and Other Resources
- 90.25 Regulated Activities

#### Review Process

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90.180	Reasonable Use Exception
90.185	Nonconformances
90.190	Critical Area Markers, Fencing and Signage
90.195	Pesticide and Herbicide Use
90.200	Critical Area Buffer and Structure Setback from Buffer Under Prior Approvals
90.205	Code Enforcement
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90.215	Liability
90.220	Appeals
90.225	Lapse of Approval

Prior legislation: Ords. 3834, 3938, 3977, 4010, 4072, 4120, 4196, 4238, 4252, 4320, 4442, 4476 and 4491.

## INTRODUCTION

### 90.05 User Guide

The regulations in this chapter apply to activities, uses, alterations, work, and conditions in or near any wetland, stream, minor lake, fish and wildlife habitat conservation areas, or frequently flooded area. These regulations add to and in many cases supersede other City regulations. Anyone interested in conducting any development activity on or near one of these critical areas; wanting to participate in the City's decision on a proposed development under this chapter; or wishing to have a determination made as to the presence of one of these areas on their property, should read these regulations.

For properties within jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC shall be met. Chapter 83 KZC contains wetland, stream and flood hazard reduction regulations for properties located within its jurisdiction. However, regulations contained in this chapter that are not addressed in Chapter 83 KZC continue to apply, such as performance security, dedication and liability.

(Ord. 4551 § 3, 2017)

### 90.10 Purpose

These regulations were prepared to comply with the Growth Management Act and implement the goals and policies of the City's Comprehensive Plan. The purpose of these regulations is to protect the environment, human life, and property. This purpose will be achieved by preserving the important ecological functions of wetlands, streams, minor lakes, fish and wildlife habitat conservation areas, and frequently flooded areas using best available science. The designation, classification, and regulation of critical areas are intended to protect property rights while assuring preservation and protection of critical areas from loss or degradation, ensuring no net loss of ecological functions and restricting incompatible land uses.

These critical areas perform a variety of valuable biological, chemical, and physical functions that benefit the City and its residents. The functions of these critical areas include, but are not limited to, the following:

1. Wetlands – Wetlands help store and convey flood and storm water, support base stream flow and recharge groundwater, provide erosion control and shoreline protection, maintain and improve water quality, provide fish and wildlife habitat, and provide cultural and socioeconomic values. Wetland functions for flood and storm water control, erosion protection, and water quality improvement are particularly valuable to protect infrastructure and to limit the effects of development on water quality in Kirkland's streams and lakes.

Wetland buffers protect wetlands from or reduce the impacts of adjacent land uses. Buffers serve to moderate runoff volume and flow rates and storm water inputs (hydrology maintenance), remove sediment, excess nutrients, synthetic organic chemicals (e.g., pesticides, oils, and greases) and other toxic substances (water quality improvement), provide shade for surface water temperature (moderate temperature), and deter harmful intrusion into wetlands by humans and pets (disturbance barrier). Buffers provide habitat connectivity for wetland-dependent species that need both aquatic and terrestrial habitats for their life cycle.

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The primary purpose of wetland regulations is to achieve a goal of no net loss of wetland function, value, and acreage, which, where possible, includes enhancing and restoring wetlands.

2. Streams – Streams and their associated buffers provide important fish and wildlife habitat and travel corridors; help maintain water quality; store and convey storm and flood water; recharge groundwater; and serve as areas for recreation, education, scientific study, and aesthetic appreciation.

Stream buffers serve an important role in maintaining stream functions that are important for supporting a diverse and productive fish population. These include water quality (i.e., protection from sediment, nutrients, metals, pathogens, herbicides, and pharmaceuticals), water temperature and microclimate, bank stability, invertebrate communities, inputs of organic detritus, instream habitat complexity, including large woody debris, and habitat travel corridors.

The primary purpose of stream regulations is to avoid damage to stream and riparian corridor functions, and where possible, to enhance and restore streams and riparian areas.

3. Minor Lakes – Minor lakes provide important fish and wildlife habitat; store and convey storm and flood water; recharge, storage, and discharge of ground water; and serve as areas for recreation, education, scientific study, and aesthetic appreciation. Because the shallow perimeter of minor lakes often meets the definition of a wetland, many uses and activities in and around lakes are regulated under the wetland regulations.

The primary purpose of minor lake regulations is to avoid impacts to lakes and contiguous stream and wetland areas, and where possible, to enhance and restore minor lakes.

4. Fish and Wildlife Habitat Conservation Areas – Fish and wildlife habitat conservation areas provide important nesting territory as well as spawning and protection areas for state and federally listed endangered, threatened, and sensitive species that have a primary association with that habitat area and state priority habitat that include species of local importance. These habitat areas help maintain long-term viability of these species and contribute to the state's biodiversity. Preservation of the vegetation, faunal, and hydrologic characteristics of these habitat areas is critical to maintaining these species.

The primary purpose of fish and wildlife habitat conservation area regulations is to protect habitats from impacts of adjacent urban uses by minimizing fragmentation of native habitat, controlling invasive species, maintaining or providing habitat connectivity with vegetated corridors between habitat patches, preserving habitat features including native vegetation, snags and downed wood, and providing buffers of adequate width adjacent to the habitat areas.

5. Frequently Flooded Areas – Frequently flooded areas are areas of special flood hazard that help to store and convey storm and flood water; recharge ground water; provide important riparian habitat for fish and wildlife; protect the functions and values of floodplains and serve as areas for recreation, education, and scientific study. Development within these areas can be hazardous to those inhabiting such development, and to those living upstream and downstream. Flooding also can cause substantial damage to public and private property that results in significant costs to the public as well as to private individuals.

The primary purpose of frequently flooded areas regulations is to manage potential risks to public safety and damage to public and private property due to flooding, and to protect instream habitat areas. The City of Kirkland uses the Federal Emergency Management Agency (FEMA) maps as a basis for a determination of the location of frequently flooded areas.

(Ord. 4551 § 3, 2017)

### 90.15 Applicability

1. General – These regulations apply to land within the City of Kirkland that contains any of the following:
  - a. Wetlands;

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- b. Streams;
  - c. Minor lakes;
  - d. Fish and wildlife habitat conservation areas;
  - e. Frequently flooded areas; and
  - f. Vegetative buffers required for the above.
2. **Conflicting Provisions** – The regulations in this chapter supersede any conflicting regulations in the Kirkland Zoning Code. For properties within jurisdiction of the Shoreline Management Act, the regulations in Chapter 83 KZC supersede any conflicting regulation in this chapter. If more than one regulation applies to the subject property, then the regulation that provides the greatest protection to critical areas shall apply.
3. **Modifications to Provisions in This Chapter** – The regulations in this chapter may not be modified using other provisions in this code, such as but not limited to historic overlay (Chapter 75 KZC), variances (Chapter 120 KZC), or planned unit developments (Chapter 125 KZC), unless as specified in KZC 90.180, Reasonable Use Exception.
4. **Other Jurisdictions** – Nothing in these regulations eliminates or otherwise affects the responsibility of an applicant or property owner to comply with all other applicable local, state, and federal regulations and permits that may be required.
5. **SEPA Compliance** – Nothing in these regulations or the decisions made pursuant to these regulations affects the authority of the City to review, condition, and deny projects under the State Environmental Policy Act, Chapter 43.21C RCW.

(Ord. 4551 § 3, 2017)

#### **90.20 Critical Areas Maps and Other Resources**

The City maintains general mapping of known critical areas. These maps and other available resources (such as topographic maps, soils maps, and aerial photos) are intended only as guides. They depict the approximate location and extent of known critical areas. Some critical areas depicted in these resources may no longer exist and critical areas not shown in these resources may occur. The provisions of this chapter and the findings of a critical areas report and review of the report by the City take precedence over the City's mapping. It is strongly advised that property owners and project applicants retain qualified critical area professionals to conduct site-specific studies for the presence of critical areas and related buffers.

The City's map relating to this chapter is entitled "Wetlands, Streams and Minor Lakes" map.

(Ord. 4551 § 3, 2017)

#### **90.25 Regulated Activities**

Regulated activities have the potential to adversely impact a critical area or its established buffer. This chapter shall regulate the following activities:

- 1. Removal, excavation, grading or dredging of material of any kind;
- 2. Dumping of, discharging of, or filling with any material;
- 3. Draining, flooding, or disturbing the water level or water table;
- 4. Driving pilings or placing obstructions;
- 5. Construction or reconstruction, or expansion of any structure;



6. Destruction or alteration of vegetation through clearing, pruning, topping, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a regulated critical area;
7. Activities that result in significant changes of water temperature and physical or chemical characteristics of water sources to the critical area, including quantity and pollutants;
8. Any other development activity; and
9. Application of herbicides and pesticides.

(Ord. 4551 § 3, 2017)

## REVIEW PROCESS

### 90.30 City Review Process

1. Activities regulated by this chapter shall be considered using the following decision processes:

**Table 90.30.1 City Review Process**

Type of Action	City Review Process	Section
Exemptions	Activities permitted outright with no review process (or reviewed with underlying development or land surface modification permit – no review fee)	KZC 90.35
Permitted Activities, Improvements and Uses Subject to Development Standards	Planning Official Decision	KZC 90.40
Exception – Public Agency and Public Utility	Planning Director – Process I, Chapter 145 KZC	KZC 90.45
Programmatic Permits – Public Agency and Public Utility	Planning Official Decision or Planning Director – Process I, Chapter 145 KZC depending on scope of project	KZC 90.50
Wetland Modification	Planning Director – Process I, Chapter 145 KZC	KZC 90.60
Category IV Wetland Exceptions	Planning Official Decision	KZC 90.60
Stream Modification	Planning Director – Process I, Chapter 145 KZC	KZC 90.70
Daylighting of Streams	Planning Official Decision	KZC 90.75
Stream Channel Stabilization	<del>Planning Director – Process I, Chapter 145 KZC</del> Planning Official Decision	KZC 90.85
Moorage Facilities and Other Improvements on Minor Lakes	Planning Director – Process I, Chapter 145 KZC	KZC 90.90
Critical Area Determination	Planning Official Determination	KZC 90.105
Buffer Averaging	Planning Official Decision	KZC 90.115
<del>Interrupted Buffer</del> Limited Buffer Waiver	Planning Official Decision	KZC 90.120
Reasonable Use Exception	Planning Director – Process I, Chapter 145 KZC	KZC 90.180

2. If a development, use or activity requiring approval through Planning Official or Process I pursuant to this chapter is part of a proposal that requires additional approval through Process IIA or Process IIB, the entire proposal shall be decided upon using that other process.

- a. The decisional criteria for a permit reviewed under a Process I in this chapter shall be used for the Process IIA or Process IIB decision.
- b. The decisional criteria, standards and/or requirements for a decision reviewed under a Planning Official Decision in this chapter shall be used for the Process IIA or Process IIB decision.

(Ord. 4551 § 3, 2017)

### 90.35 Exemptions

The following activities, improvements and uses have little or no environmental impact, are temporary in nature, or are an emergency and are therefore exempt from the provisions of KZC 90.40 through 90.225, unless otherwise determined by the Planning Official.

An exemption does not give permission to degrade a critical area or ignore risk from natural hazards. All exempted activities shall use reasonable methods to avoid impacts to critical areas or their buffers. Any temporary damage to, or alteration of, a critical area or buffer shall be restored, rehabilitated, or replaced to prior condition or better at the responsible party's expense. Revegetation shall occur during the wet season, but no later than 180 days after the damage or alteration of the critical area or buffer occurred. All other restoration or rehabilitation shall be completed within 60 days of the damage or alteration, unless otherwise approved by the Planning Official.

The following activities, improvements and uses are exempt:

1. Repair and Maintenance of Structures – Repair and maintenance of existing legally established, functioning structures. This provision excludes public streets and utilities. <sup>1</sup>
2. Public Streets – Repair, maintenance, reconstruction and minor expansion of existing public streets, including associated appurtenances, bike lanes, and sidewalks. <sup>2, 5, 6</sup>
3. Utilities – Repair and maintenance of utility structures and conveyance systems and their associated facilities including service lines, pipes, mains, poles, equipment and appurtenances – both above and below ground. Replacement, installation, or construction of new utility structures and conveyance systems and their associated facilities within existing improved rights-of-way, existing legally improved private roadways, utility corridors or the Cross Kirkland Corridor and Eastside Rail Corridor. This provision does not include upgrading electric facilities that exceed 115 KV or replacement of hazardous liquid pipelines that increase existing pipeline circumference, or installation of additional hazardous liquid pipelines. <sup>3, 5, 6</sup>
4. Demolition – Removal of structures in critical area buffers; provided, that all disturbed soils are stabilized and revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type.
5. Existing Nonmotorized Trails – Repair and maintenance of existing, legally established nonmotorized trails, including the Cross Kirkland Corridor and Eastside Rail Corridor. <sup>1, 5</sup>
6. Existing Landscaping – Landscape maintenance of legally established lawns and gardens; including mowing, pruning, weeding, and planting; provided, that such activities do not expand any further into critical areas or buffers, and excludes removal of significant trees, and the use and application of chemical fertilizers, herbicides and insecticides comply with provisions in KZC 90.195.
7. HVAC Equipment – Addition of HVAC equipment with a footprint of less than nine (9) square feet; provided, that:
  - a. There is no feasible alternative location available;
  - b. It does not expand the area beyond legally established landscaping or improvements;
  - c. It is not located in the critical area and is as far as possible from the critical area;

- d. Noise minimization techniques are provided. HVAC equipment shall be baffled, shielded, and enclosed to ensure compliance with the noise provisions of KZC 115.95, except that the receiving property shall also include the upland edge of the critical area buffer; and
  - e. It must meet the setback requirements in KZC 115.115.
8. Site Investigative Work and Studies – Site investigative work and studies necessary for development permits, including geotechnical tests, water quality studies, wildlife studies, and critical area investigations; provided, that any disturbance of the critical area or its buffer shall be the minimum necessary to carry out the work or studies and the area must be restored with native vegetation after testing is done. Use of any mechanized equipment requires prior approval of the Planning Official.
9. Public Restoration<sup>6</sup> – Restoration of a critical area and its buffer through the removal of nonnative plant species provided all of the following apply:
- a. The entire area cleared of plants must be revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the Vegetative Buffer Standards in KZC 90.130 as a guideline for plant diversity and type;
  - b. The subject property is not located in a high landslide hazard area;
  - c. No grading or filling is required to remove nonnative invasive plants or revegetate with native species;
  - d. Restoration work shall be restricted to hand removal. Hand removal equipment includes shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment; except that machinery can be used if machinery can access the buffer from an abutting paved roadway without encroaching into the buffer;
  - e. Replanting with native vegetation must take place immediately following removal of invasive species;
  - f. Goats may be used to remove invasive species only provided their use does not adversely affect stream or wetland functions and they are restricted from access to the wetland or stream. Use of goats may be limited or prohibited by the Planning Official in areas where native vegetation is present and could be damaged;
  - g. In all cases, nonnative, invasive species removal shall avoid impacts to native species; and
  - h. Citizen volunteers doing restoration must be under the direct supervision of City staff.
10. Private Restoration<sup>6</sup> – Restoration of a critical area and its buffer through the removal of nonnative invasive plant species listed in the King County Noxious Weed List provided all of the following apply:
- a. The entire area cleared of invasive plants shall be revegetated with appropriate native vegetation and at spacing interval and plant size listed in the City's Critical Area Plant List using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type;
  - b. The subject property is not located in a high landslide hazard area;
  - c. No grading or filling is required to remove nonnative invasive vegetation or revegetate with native species;
  - d. A planting restoration plan must be submitted to the Planning Official for review and approval prior to any disturbance to the buffer. The plan must include the area to be restored, method of removal, a detailed native planting plan with a plant list and schedule for commencement and completion of the project;
  - e. Restoration work shall be restricted to handheld equipment. Handheld equipment includes shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment; machinery such as excavators and bulldozers is not allowed;

- f. Replanting with native vegetation must take place immediately following removal of invasive species;
  - g. All removed plant material shall be taken away from the site; and plants that appear on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species; and
  - h. In all cases, nonnative, invasive species removal shall avoid impacts to native species.
11. Storm Water Dispersion Flow Path – Creation of a vegetated flow path from a dispersion device that is located outside the critical area buffer that flows into the critical area buffer provided the buffer meets the vegetative buffer standards in KZC 90.130, and the design is part of an approved development permit.
12. Other – Educational activities, scientific research, and passive outdoor recreational activities such as bird watching, fishing, and hiking, not including trail building or clearing.
13. Emergency Activities – Emergency activities necessary to prevent an immediate threat to public health, safety, or welfare. Alterations shall be reported to the City within seven (7) days and include evidence of threat or imminent danger. The City may require a permit to be obtained after-the-fact and require the critical area and its buffer to be fully restored in accordance with a critical area report and mitigation/maintenance plan.<sup>4</sup>

14. Beaver Management – Beaver management activities, provided the activity has an approved Hydraulic Project Approval (HPA) from the WA Department of Fish and Wildlife and follows all requirements therein.

15. Private Maintenance Activities Required by the City of Kirkland to mitigate substantial flooding risk to public or private property.

Notes:

<sup>1</sup> Repair and maintenance shall not increase the previously approved structure footprint or impervious area, including paving and previously approved private roadways and driveways and parking areas within a critical area or its buffer, and shall not include foundation replacement. Foundation and complete structure replacement is regulated under KZC 90.185.

<sup>2</sup> Public street activities shall not increase the impervious area in the right-of-way, or reduce flood storage capacity in the critical area or critical area buffer. Public street activities in this provision also include expansion of pavement into existing impervious street shoulders.

<sup>3</sup> Utility activities shall not increase the impervious area in the right-of-way or private roadway or utility corridor or the Cross Kirkland and Eastside Rail Corridors, (except utility poles), or reduce flood storage capacity in the critical area or critical area buffer. Replaced overhead electric utilities and their associated facilities shall not be exempt if the work results in additional vegetation disturbance of the critical area or its buffer because of ongoing required vegetation maintenance due to wider vegetation clearance requirements. Utility activities in this provision also include expansion of existing structures such as substations into existing impervious areas.

<sup>4</sup> All restoration and mitigation shall occur within the timeframe established with the underlying permit, but in no case more than one (1) year from the date of the emergency.

<sup>5</sup> The construction drawings shall show the edge of the right-of-way, private roadway or utility corridor, and the existing impervious shoulder area. The drawings shall also specify that all affected critical areas and buffers shall be restored to their pre-project condition or better, including soil stabilization and revegetation.

<sup>6</sup> All activities shall be undertaken using best management practices as determined by the Planning Official and adhere to the fish and wildlife seasonal restrictions on construction activities as determined by the Washington State Department of Fish and Wildlife.

(Ord. 4551 § 3, 2017)

**90.40 Permitted Activities, Improvements or Uses Subject to Development Standards**

1. Permitted Activities, Improvements and Uses – Activities, improvements and uses identified in this section are permitted subject to the following approval and development standards. Those activities and uses not identified or not meeting the standards in this section may be proposed under other sections of this chapter.

2. Process – The Planning Official shall review and decide on an application for a permitted activity or use. The general and specific standards in subsections (5) and (6) of this section along with the mitigation plan shall be conditions of approval.

3. Decisional Criteria – The Planning Official may approve a permitted activity or use if it is determined that:

a. There is no practical alternative location with less adverse impact on the critical area or its buffer based on a critical area report and mitigation sequencing pursuant to KZC 90.145;

b. The mitigation plan pursuant to KZC 90.145 sufficiently mitigates impacts; and

c. The project plans meet the general and specific standards in subsections (5) and (6) of this section.

4. Critical Area Determination and Report – The applicant shall submit a critical area determination pursuant to KZC 90.105 and a critical area report pursuant to KZC 90.110.

5. Standards

a. Application for permitted activities, improvements or uses identified in this section shall demonstrate that they meet the following standards except as noted in subsection (6) of this section.

1) General mitigation requirements including mitigation sequencing pursuant to KZC 90.145;

2) If located in a wetland or wetland buffer, requirements for wetland compensatory mitigation, pursuant to KZC 90.150;

3) Implement a mitigation plan pursuant to KZC 90.145 and/or KZC 90.150;

4) If located in a fish or wildlife habitat conservation area, requirements of KZC 90.95;

5) Monitoring and maintenance requirements pursuant to KZC 90.160;

6) Financial security requirements pursuant to KZC 90.165;

7) Critical area markers, fencing and signage requirements pursuant to KZC 90.190;

8) Dedication of critical area and buffers requirements pursuant to KZC 90.210;

9) No adverse impact on water quality or conveyance or degradation of critical area functions and values;

10) Structures and improvements located to minimize removal of significant trees; and

11) Restoration of temporary disturbance areas associated with the work to pre-project conditions or better shown on construction drawings and expeditiously done.

b. Except as provided in subsection (5)(a) of this section, the list of permitted activities, improvements or uses are not subject to general standards pursuant to KZC 90.105 through 90.225.

6. List of Permitted Activities, Improvements and Uses – The following activities and uses may be permitted; provided, that the specific standards applicable to each activity or use and the general standards in subsection (5) of this section are met.

a. Private Repair and Maintenance of Culverts

- 1) Work limited to removing impediments to improve flow conveyance;
- 2) Work must be done by hand; and
- 3) Shall comply with Washington State Department of Fish and Wildlife's seasonal restrictions on instream work.

b. Private Roadways – New private driveway or easement road through a buffer if there is no other option available to access a property that is both a legal building site and a buildable site, provided:

- 1) The driveway or easement road is the minimum width and length necessary to access the buildable site;
- 2) Buffer disturbance for installation of the driveway or easement road is the minimum necessary;
- 3) Buffer area and function are equal or better than pre-project condition;
- 4) ~~The buffer vegetation~~ An area at a minimum equal to the length and width of the roadway and disturbed areas shall be vegetated using KZC 90.130 as a guideline for plant diversity and type. This shall constitute mitigation for critical area and buffer impacts and
- 5) The project does not include a wetland modification or stream modification pursuant to KZC 90.60 or 90.70, or a reasonable use exception pursuant to KZC 90.180.

c. Private and Public Nonmotorized Trails, Stream Crossings, and Benches and Public Wildlife Viewing Structures

- 1) The improvement shall be located only in the outer 25 percent of the buffer area. Exceptions are stream crossings, and trail access to Forbes Lake and Totem Lake which may require access through a buffer or wetland to get to the lake, and public wildlife viewing structures;
- 2) Stream crossings are not permitted in Type F streams under this section. See KZC 90.70 for proposing stream crossing of Type F streams;
- 3) Trails shall be limited to the least impactful pervious surfaces. Raised boardwalks utilizing approved nontreated pilings are acceptable if found to be the least impacting alternative, and shall not be counted toward lot coverage;
- 4) Private trails shall be no more than three (3) feet in width. Public trails shall be no more than five (5) feet in width;
- 5) Stream crossings shall meet the standards for crossings in KZC 90.70 and Washington State Department of Fish and Wildlife's Water Crossing Guidelines, and other state and federal permits;
- 6) ~~Vegetative buffers shall be provided where possible~~ An area equal to the length and width of the trail corridor and associated disturbed areas shall be vegetated using KZC 90.130 as a guideline for plant diversity and type. This shall constitute mitigation for critical area and buffer impacts; and
- 7) For public improvements, financial security standards of KZC 90.165 and dedication of critical area and buffer requirements of KZC 90.210 are waived.

d. Private and Public Utilities

- 1) New sewer and storm water lines in critical area buffers where necessary to allow for gravity flow, provided they shall be located as far as possible from the critical area edge;

2) New utilities in critical area buffers, other than addressed in subsection (6)(d)(1) of this section; provided, that:

- (a) The facility shall be only located in the outer 25 percent of the buffer area;
- (b) The facility is not a hazardous liquid or gas pipeline; and
- (c) The facility is not a substation;

3) New piped storm water outfalls and associated dissipation devices, such as flow spreaders and rock pads, within critical area buffers, provided:

- (a) Discharge of storm water outside of the buffer is not feasible as determined by the City; or
- (b) If property adjoining the buffer is greater than 15 percent slope, a specific study by a geotechnical engineer or engineering geologist must show that discharge outside of the buffer will cause slope instability or excessive erosion, and therefore the discharge needs to be in the buffer; and
- (c) The outfall is located as far as possible from the critical area;

4) Boring for utilities/utility corridor under a critical area, provided:

- (a) Not permitted in a Category I Wetland;
- (b) Entrance/exit portals must be located in the outer 25 percent of the critical area buffer;
- (c) Boring does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column; and
- (d) A specific study by a hydrologist is required to determine whether the ground water connection to the critical area or percolation of surface water down through the soil column will be disturbed;

5) For City utility projects, financial security standards of KZC 90.165 are waived;

6) For public utility projects, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the Planning Official determines that they are not warranted; and

7) For private and public utility projects, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.

e. Private and Public Instream Maintenance

1) Work limited to removing inorganic debris, sediment, invasive vegetation and replanting of streambank with native vegetation to improve instream fish habitat, fish passage and flow conveyance;

2) Work must be done by hand. Hand removal equipment may include shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment;

3) Public work may include machinery if it can access the buffer from an abutting paved roadway without encroaching into the buffer;

4) Maintenance shall comply with Washington State Department of Fish and Wildlife's seasonal restrictions on stream work, including state permit approvals;

5) For public instream maintenance, financial security standards of KZC 90.165 are waived;



- 6) For public instream maintenance, dedication of critical area and buffers requirements pursuant to KZC 90.210 may be waived if the Planning Official determines that they are not warranted; and
  - 7) For private and public instream maintenance, critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.
- f. Private and Public Restoration – Restoration of a critical area and its buffer in high landslide hazard areas and/or where grading is necessary for the removal of nonnative plants, provided:
- 1) The entire area cleared of invasive plants shall be revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant list, using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type;
  - 2) The City shall require a geotechnical investigation in high landslide hazard areas pursuant to Chapter 85 KZC, and if determined to be necessary based on the investigation, a geotechnical report with recommendations on special mitigation techniques or measures, along with an erosion control plan;
  - 3) Removal of invasive plant species and other restoration work shall be restricted to work by hand, including use of shovels, tillers, clippers, loppers, weed wrenches, and brush cutters and any handheld gas or electric equipment;
  - 4) Replanting with native vegetation must take place immediately following removal of invasive species;
  - 5) For public restoration, machinery may be used if the use of such equipment is determined acceptable by the geotechnical investigation and/or report;
  - 6) For public restoration, citizen volunteers doing restoration must be under the direct supervision of City staff;
  - 7) For private restoration, removed invasive plant material shall be taken off the site; and plants that appear on the King County Noxious Weed List must be handled and disposed of according to a noxious weed control plan appropriate to that species; and
  - 8) For public restoration, financial security standards of KZC 90.165 are waived.
- g. Private and Public Demolition – Removal of structures in critical areas; provided, that:
- 1) All disturbed soils are stabilized and revegetated with appropriate native vegetation and at spacing intervals listed in the City's Critical Area Plant List using the vegetative buffer standards in KZC 90.130 as a guideline for plant diversity and type;
  - 2) Replanting with native vegetation must take place immediately following the clearing activity;
  - 3) For public demolition, financial security standards of KZC 90.165 are waived;
  - 4) For public demolition, dedication of critical area and buffers requirements pursuant to KZC 90.210 and critical area markers are waived; and
  - 5) For private and public demolition, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines they are not warranted.
- h. Public Streets – Widening of existing public streets in critical area buffers, provided:
- 1) The street shall only be located in the outer 25 percent of the buffer area;

- 2) Any necessary culvert modification or extension is designed to meet the Washington Department of Fish and Wildlife's Water Crossing Guidelines;
  - 3) Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived; and
  - 4) Critical area markers, permanent fencing and signage requirements pursuant to KZC 90.190 may be waived if the Planning Official determines that they are not warranted.
- i. Improvements Associated with the Cross Kirkland Corridor and Eastside Rail Corridor – New, modified or relocated public nonmotorized trails within the Cross Kirkland Corridor and Eastside Rail Corridor and connecting to either corridor approved under the City's Cross Kirkland Corridor Master Plan or as amended. Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived.
- j. Improvements Associated with City Park, Transportation, and Utility Master Plans – Any new or modified City projects, other than those associated with the Cross Kirkland Corridor or Eastside Rail Corridor, approved under a master plan approved by the City Council, for which a critical area determination and delineation pursuant to KZC 90.105 and location of critical areas have been considered as part of the master plan process. Financial security standards of KZC 90.165 and dedication of critical area and buffers requirements pursuant to KZC 90.210 are waived.

k. Temporary construction impacts to wetland and stream buffers, provided:

- 1) The impact is the minimum necessary for the task,
- 2) The construction is for an approved use, and
- 23) The buffer area is fully restored to pre-construction conditions immediately following completion of construction.

(Ord. 4551 § 3, 2017)

**90.45 Public Agency and Public Utility Exceptions**

If strict application of this chapter would prohibit a development proposal by a public agency or public utility, the agency may apply for an exception pursuant to this section.

1. General – Prior to seeking approval through this section, the Planning Official in conjunction with a public agency or public utility shall first determine that:
  - a. The project scope cannot be approved under KZC 90.60 for wetland modifications; KZC 90.70 for stream modifications; KZC 90.85 for stream channel stabilization; and KZC 90.95 for wildlife habitat conservation areas; and
  - b. The project cannot meet the requirements under KZC 90.130, Vegetative Buffer Standards; and KZC 90.140, Structure Setback from Critical Area Buffer; or any other provision in this chapter.
2. Process – A critical area exception for public agencies and public utilities shall be reviewed and decided upon using Process I, pursuant to Chapter 145 KZC.
3. Decisional Criteria – The Planning Director shall make a decision based on the following criteria:
  - a. There is no other practical alternative to the proposed project with less impact on the critical areas or buffer;
  - b. Strict application of this chapter would unreasonably restrict or prohibit the ability to provide public utilities or public agency services to the public;

c. The proposal minimizes impacts to the critical area or buffer through mitigation sequencing, and through type and location of mitigation, pursuant to KZC 90.145 and 90.150, if applicable, including such installation measures as locating facilities in previously disturbed areas, boring rather than trenching, and using pervious or other low impact materials; and

d. The proposal protects and/or enhances critical area and buffer functions and values, consistent with the best available science and with the objective of no net loss of critical area functions and values.

4. Submittal Requirements – The application shall include the City’s critical area determination pursuant to KZC 90.105; ~~and~~ a critical area report pursuant to KZC 90.110; a mitigation plan pursuant to KZC 90.145, and ~~pursuant to a mitigation plan pursuant to~~ KZC 90.150 if a wetland is to be modified; a response to the decisional criteria in subsection (3) of this section; and the following documents and/or analysis based upon the type of exception proposed in order to determine that the strict application of this chapter would otherwise prohibit a development proposal:

a. Wetland Modifications

1) The public agency or public utility shall submit a wetland modification assessment pursuant to KZC 90.60(6); and

2) The public agency or public utility shall demonstrate that the requirements in KZC 90.60(8) and (9) cannot be met.

b. Stream Modifications

1) The public agency or public utility shall submit a stream modification assessment pursuant to KZC 90.70(5); and

2) The public agency or public utility shall demonstrate that the requirements in KZC 90.70(6) and (7) cannot be met.

c. Daylighting of Stream – The public agency or public utility shall submit a stream daylighting plan demonstrating that the requirements in KZC 90.75(3) cannot be met.

d. Stream Channel Stabilization – The public agency or public utility shall submit a streambank assessment and stream channel stabilization plan demonstrating that the requirements in KZC 90.85(5) and (6) cannot be met.

e. Wildlife Habitat Conservation Area Modifications

1) The public agency or public utility shall submit an assessment of a habitat conservation area pursuant to KZC 90.95(3), a habitat management plan pursuant to KZC 90.95(6); and

2) The public agency or public utility shall demonstrate that the requirements in KZC 90.95(7) cannot be met.

f. Buffer Averaging – The public agency or public utility shall demonstrate that the standards in KZC 90.115(2) cannot be met.

g. Vegetative Buffer Standards – The public agency or public utility shall demonstrate that the standards in 90.130(2) through (4) cannot be met.

h. Structure Setback – The public agency or public utility shall demonstrate that the standards in KZC 90.140 cannot be met.

5. Waiver – Planning Official may waive a specific submittal requirement if it is determined not to be applicable or necessary.

**90.50 Programmatic Permit – Public Agency and Public Utility**

1. General – A public programmatic permit may be issued for either a permitted activity subject to the submittal requirements and development standards of permitted activities, improvements and uses with standards in KZC 90.40 or public agency or public utility exception in KZC 90.45, if it meets the requirements of this section, as determined by the Planning Official. Exempted activities pursuant to KZC 90.35 do not require a programmatic permit.
2. Criteria for a Programmatic Permit – The activity shall:
  - a. Be repetitive and part of a maintenance program or other similar program;
  - b. Have the same or similar identifiable impacts, as determined by the City, each time the activity is repeated at all sites covered by the programmatic permit; and
  - c. Be suitable to having standard conditions that will apply to all sites.
3. Process
  - a. For an activity that would otherwise be approved as a permitted activity subject to development standards, the Planning Official shall make the decision on the programmatic permit.
  - b. For an activity that would otherwise be approved as a public agency or public utility exception, the programmatic permit shall be reviewed and decided upon pursuant to a Process I described in Chapter 145 KZC.
4. Required Conditions – The City shall uniformly apply conditions to each activity authorized under the programmatic permit at all locations covered by the permit. The City may require that the applicant develop and have uniformly applicable conditions as part of the programmatic permit application, subject to City approval. The City shall not issue a programmatic permit until applicable conditions are developed and approved by the City.
5. Inspections – Activities authorized under a programmatic permit shall be subject to inspection by the Planning Official and prearranged in advance. The Planning Official may require that the applicant submit periodic status reports. The frequency, method and contents of the inspection notifications and reports shall be specified as conditions in the programmatic permit.
6. Revisions and Modifications to Permit – The Planning Official may subsequently require revisions, impose new conditions or otherwise modify the programmatic permit or withdraw the permit and require that the applicant undergo review for a new permitted activity approval or new exception for a public agency and public utility, if the Planning Official determines that:
  - a. The programmatic permit or activities authorized under the permit no longer comply with this chapter;
  - b. The programmatic permit does not provide adequate regulation of the activity;
  - c. The programmatic permit conditions or the manner in which the conditions are implemented are not adequate to protect against the impacts resulting from the activity; or
  - d. A site requires site-specific regulation.
7. Other Agency Requirements – If an activity covered by a programmatic permit also requires other county, state and/or federal approvals, to the extent feasible, the City shall reference those conditions of other approvals in the programmatic permit.

(Ord. 4551 § 3, 2017)

## WETLANDS

### 90.55 Wetlands and Associated Buffer Standards

Wetlands and associated buffer standards are provided in this section. The table below is a summary of the wetland regulations. More details are provided for some of the regulations elsewhere in this chapter.

**Table 90.55.1 Wetlands and Associated Buffer Standards**

Wetland Classification and Rating	In accordance with the 2014 Department of Ecology Washington State Wetland Rating System for Western Washington, as revised. Wetland category and rating shall be determined through a survey and field investigation by a qualified critical area professional approved by the City as part of a critical area report in KZC 90.110. Wetland rating categories shall not change due to illegal modification.					
Wetland Delineation	In accordance with the approved federal delineation manual and applicable regional supplements described in WAC 173-22-035 and based on field investigation and a survey. See KZC 90.110.					
Wetland Determination	Planning Official makes determination if a wetland and/or a buffer exist on the subject property, and if so, its category, rating, boundaries and buffer width based on a required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the buffer vegetative standards in KZC 90.130.					
Wetland Buffer Width Standard		Wetland Buffer Widths				
	Wetland Category	Buffer Width Based on Habitat Points				
		3-4 <del>5</del> habitat pts.	<del>5</del> habitat pts.	6-7 habitat pts.	8-9 habitat pts.	
	Category I: Bogs and <u>Wetlands of High Conservation Areas</u> <u>Value</u>	190 feet	<del>190 feet</del>	190 feet	225 feet	
	Category I: Others	75 feet	<del>105 feet</del>	<del>165-110</del> feet	225 feet	
	Category II	75 feet	<del>105 feet</del>	<del>165-110</del> feet	225 feet	
	Category III	60 feet	<del>105 feet</del>	<del>165-110</del> feet	225 feet	
	Category IV	40 feet				
		See KZC 90.130 for buffer vegetation requirements				
Wetland Buffer Width Alternative	Applicant can choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements: 1) Increase buffer width listed above in Wetland Buffer Widths by 33% within entire buffer. 2) Remove all structures and improvements within the buffer. 3) Discontinue any maintenance of lawn and nonnative vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35(12) and (13). In no case shall a standard and an alternate buffer standard be combined for a development proposal.					
Other Standards	<ul style="list-style-type: none"><li>• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115.</li><li>• Increased buffer width may be required if wetland or its buffer contains or is adjacent to severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.</li><li>• Wetlands that are degraded must be restored if the project is subject to KZC 90.130(3)(a) for the vegetative buffer standard and/or a wetland modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions.</li><li>• Standard buffers must meet the vegetative buffer standards. See KZC 90.130.</li><li>• Measures to minimize impact to wetlands must be implemented for standard buffers. See KZC 90.155.</li></ul>					

	<ul style="list-style-type: none"> <li>For wetlands that score 6 or more points for habitat function, the following conditions must be maintained in order to use the standard buffers, as follows:           <ul style="list-style-type: none"> <li>If an existing, relatively undisturbed vegetated corridor at least 100 feet wide exists between the on-site wetland and other Priority Habitats, as defined by the Washington State Department of Fish and Wildlife, and the off-site portion of the corridor is already protected via an existing conservation easement, critical areas regulations, or other legal requirement, the portion of the corridor on-site must also be protected by a similar legal protection. All other applicable criteria found in 90.55 must also be met. The evaluation of presence or absence of the conditions described above must be completed as part of the critical areas report.</li> <li>If no such corridor is present to protect, the standard buffers alone may be used with the other applicable criteria contained in 90.55. If an option for protection of a corridor, as defined under (a) above, exists on the parcel, but is not provided, standard buffer widths must be increased by 33%.</li> </ul> </li> <li>Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of the project. See KZC 90.190.</li> <li>For voluntary restoration, see KZC 90.35 and 90.40.</li> <li>For code enforcement to correct an illegal modification to a wetland or buffer, see KZC 90.205.</li> <li>Wetlands and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.</li> </ul>
<b>Structure Setback from Buffer</b>	10-foot-wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted in the setback.
<b>Activities, Improvements and Uses in Wetlands</b>	Activities, improvements and uses are prohibited within wetlands and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under a City review process in this chapter.
<b>Modification to Wetlands, Related Impacts to Associated Buffers</b>	<ul style="list-style-type: none"> <li>Modification to a wetland and related impacts to buffers require approval pursuant to a Process I, Chapter 145 KZC along with a critical area report, mitigation sequencing, and compensatory mitigation plan. See KZC 90.110, 90.145 and 90.150.</li> <li>Buffer standard may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40 and for an interrupted buffer pursuant to KZC 90.120. Also, see nonconformances pursuant to KZC 90.185.</li> <li>Isolated Category IV wetlands less than 4,000 square feet and wetlands less than 1,000 square feet pursuant to KZC 90.60 are not required to meet mitigation sequencing, but compensatory mitigation is required pursuant to KZC 90.150.</li> </ul>

(Ord. 4551 § 3, 2017)

### 90.60 Wetland and Wetland Buffer Modification

1. Applicability- This section does not apply to wetland modifications and wetland buffer modifications that may be approved in certain circumstances under a Reasonable Use Exception pursuant to KZC 90.180; Permitted Activities, Improvements Or Uses Subject To Development Standards pursuant to KZC 90.40; Public Agency And Public Utility Exceptions pursuant to KZC 90.45; or Programmatic Permit- Public Agency And Public Utility pursuant to KZC 90.50.

~~Modifications to Wetlands—Modifications to wetlands and related impacts to associated buffers shall be prohibited, except as permitted as part of a wetland modification approved under this section. Wetland modifications and the associated buffers may also be approved in certain circumstances under a reasonable use exception pursuant to KZC 90.180, permitted activities, improvements or uses subject to development standards, pursuant to KZC 90.40, public agency and public utility exceptions, pursuant to KZC 90.45, or programmatic permit—public agency and public utility pursuant to KZC 90.50.—~~

~~The following modifications may be proposed:~~

- ~~a. Fill of a wetland;~~
- ~~b. Structures and improvements in a wetland;~~
- ~~c. Removal and/or alteration of vegetation in wetland; and~~

~~d. Impacts to associated buffer as part of wetland modification.~~

2. ~~Exception—Wetland Modification-~~ Modifications to wetlands shall be prohibited except that the following limited types of wetlands are not required to meet mitigation sequencing pursuant to KZC 90.145 and may be filled if the impacts are fully mitigated. The applicant shall submit a critical area report pursuant to KZC 90.105 and 90.110 verifying that the following criteria are met.

a. Category IV isolated wetlands less than 4,000 square feet that:

- 1) Are not associated with streams or their buffers;
- 2) Are not part of a wetland mosaic;
- 3) Do not score ~~five-six (56)~~ or more points for habitat function; and
- 4) Do not contain state or federal designated endangered, threatened or sensitive species or their habitats or state priority habitats, including species of local importance identified in KZC 90.95.

The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation for both wetland and buffer loss pursuant to KZC 90.150. Impacts shall be mitigated through an in-lieu fee or mitigation bank program if a program is available. Otherwise, preference for mitigation location shall be pursuant to KZC 90.145.

It is the applicant's responsibility to arrange a jurisdictional determination by the U.S. Army Corps of Engineers on whether a wetland is isolated but regulated by the Department of Ecology for filling a Category IV isolated wetland.

b. Category IV isolated wetlands less than 1,000 square feet that meet subsection (2)(a) of this section are exempt from buffer requirements. The Planning Official may approve an application under this exception only if the applicant provides compensatory mitigation pursuant to KZC 90.150 for the wetland loss. No compensatory mitigation is required for the buffer loss.

3. ~~Limited-Wetland~~ Buffer Modification – A wetland buffer may not be modified or otherwise reduced, except if part of an approved wetland or buffer modification in this section. ~~Wetland buffer modifications also may be approved in limited circumstances under permitted activities, improvements or uses subject to development standards pursuant to KZC 90.40, public agency and public utility exceptions pursuant to KZC 90.45, under programmatic permit—public agency and public utility pursuant to KZC 90.50, or under a reasonable use exception pursuant to KZC 90.180.~~

The following wetland buffer modifications may be proposed:

a. Impacts to associated buffer as part of wetland modification;

b. Buffer averaging permitted pursuant to KZC 90.115; or

~~bc.~~ Interrupted buffer waiver permitted pursuant to KZC 90.120.

~~45.~~ Process – Unless otherwise specified in KZC 90.40, 90.115 or 90.120, any proposal to modify a wetland and its buffer shall be reviewed and approved pursuant to Process I, described in Chapter 145 KZC.

~~56.~~ Decisional Criteria – In addition to the criteria of a Process I, the Planning Director shall only approve a modification to a wetland and buffer if:

- a. Mitigation sequencing requirements have been met. See KZC 90.145;
- b. Compensatory mitigation and mitigation plan requirements are approved. See KZC 90.150;



- c. It will not adversely affect fish, wildlife, or their habitat, including habitat for endangered, threatened or sensitive species, or species of local significance. See KZC 90.95;
- d. It will not adversely affect water quality;
- e. It will not have an adverse effect on drainage and/or storm water detention capabilities either on-site or to the adjacent area;
- f. It will not result in unstable geologic and soil conditions or create an erosion hazard;
- g. It will not have fill material that contains organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat; and
- h. All exposed areas will be stabilized with native vegetation normally associated with wetlands and/or buffers, as appropriate.

The wetland compensatory mitigation plan, additional requirements in subsection (9) of this section and any conditions of approval for the modification shall be conditions for all related land surface modification and/or building permit approvals.

**67.** Wetland Modification Assessment – As part of the application for a wetland modification, the applicant shall submit a wetland modification assessment prepared by a qualified critical area professional approved by the City, and also fund the City's peer review of the assessment. The assessment shall contain:

- a. The City's final critical area determination and critical area report along with the survey of the wetland and/or buffer on the subject property pursuant to KZC 90.105;
- b. Description of the proposed modification to the wetland and associated impact to the buffer if applicable;
- c. Analysis of mitigation sequencing for the proposal and mitigation as required in KZC 90.145. If the vegetative buffer standards are required under KZC 90.130, the required enhanced buffer may not be used towards mitigating a modified buffer;
- d. Evaluation of the effects of the proposed modification on the functions and values of the wetland and the buffer. The assessment shall look at impacts to water quality, storm water detention, erosion protection, functions of the wetland and wildlife habitat and frequently flooded areas and any other potential impact determined by the Planning Official; and
- e. Any other information or studies determined necessary by the Planning Official.

**78.** Wetland Compensatory Mitigation Plan – As part of the application for a wetland modification, the applicant shall submit a compensatory mitigation plan pursuant to KZC 90.150 that is prepared by a qualified critical area professional approved by the City. The applicant shall also fund City peer review of the plan. The plan shall include mitigation for lost or affected functions; type, location, and approach of compensation; timing of the mitigation; a monitoring and maintenance plan and financial security estimate as required in KZC 90.160 and 90.165.

**89.** Buffers for Mitigation Sites – A wetland that is created, restored, or enhanced as on-site or off-site compensation within Kirkland for an approved wetland modification shall have a buffer width that is applicable to the wetland category for the created, restored, or enhanced wetland.

**910.** Additional Requirements for Approved Wetland Modification

- a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;
- b. The requirements for wildlife habitat conservation areas in KZC 90.95 and frequently flooded areas in KZC 90.100 shall be met if applicable;

c. If a proposed wetland modification will result in the creation or expansion of a wetland or its buffer on any property other than the subject property, a statement signed by the owners of all affected properties, in a form approved by the City Attorney, shall be submitted with the modification application and recorded in the King County Recorder's Office. The statement shall consent to the critical area and/or buffer creation or increase on their property; and

d. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

(Ord. 4551 § 3, 2017)

## STREAMS

### 90.65 Streams and Associated Buffer Standards

Stream and associated buffers standards are provided in this section. The table below is a summary of the stream regulations. More details are provided for some of the regulations elsewhere in this chapter.

**Table 90.65.1 Streams and Associated Buffer Standards**

Stream Classification	In accordance with WAC 222-16-030, as amended. The Planning Official makes final determination. Stream classification shall not change due to illegal modifications.			
Stream Determination	Planning Official makes determination if a stream and/or a buffer exist on the subject property, and if so, a stream's classification and boundary, and width of buffer based on required critical area report pursuant to KZC 90.110. In addition, the Planning Official makes determination if the standard buffer meets the vegetative buffer standards in KZC 90.130.			
Stream Buffer Width Standard		Stream Buffer Widths		
		Stream Type	Buffer Width	
		F (Fish bearing)	100 feet	
		Np (Perennial non-fish bearing)	50 feet	
		Ns (Seasonal non-fish bearing)	50 feet	
			See KZC 90.130 for buffer vegetation requirements	
Stream Buffer Width Alternative	Applicant may choose not to comply with the vegetative buffer standards in KZC 90.130 by complying with the following requirements: 1) Increase buffer width listed above in stream buffer widths by 33% within entire buffer. 2) Remove all structures and improvements within the buffer. 3) Discontinue any maintenance of lawn and nonnative vegetation within the buffer. 4) Cease all activities in the buffer, except those permitted under KZC 90.35(12) and (13). In no case shall a standard and an alternate buffer standard be combined for a development proposal.			
Other Standards	<ul style="list-style-type: none"><li>• Buffer averaging is permitted for both the standard buffer and the alternative buffer if criteria are met. See KZC 90.115. The Planning Official makes decision.</li><li>• Increased buffer width may be required if the stream or its buffer contains or is adjacent to a severe erosion area, habitat of certain species or frequently flooded area based on critical area report. See KZC 90.125.</li><li>• Streams that are degraded must be restored if the project is subject to KZC 90.130(3)(a) for a vegetative buffer and/or a stream modification is proposed. A critical area report shall address any needed restoration due to degraded vegetation, habitat, water quality and hydrologic functions with specific consideration for anadromous salmon.</li><li>• Standard buffers must meet vegetative buffer requirements pursuant to KZC 90.130.</li><li>• Buffers shall be provided where a stream abuts an inlet and outlet of culverted streams as shown in Chapter 180 KZC, Plate 16A.</li><li>• Fencing and signage are required along the entire upland edge of buffer both during construction and upon completion of a project. See KZC 90.190.</li></ul>			

	<ul style="list-style-type: none"> <li>• Voluntary restoration of streams and buffers or instream maintenance, see KZC 90.35 and 90.40.</li> <li>• For code enforcement to correct an illegal modification to a stream or buffer, see KZC 90.205.</li> <li>• Streams and buffers shall be placed in recorded critical area easements or tracts for perpetual protection and maintenance. See KZC 90.210.</li> </ul>
<b>Structure Setback from Buffer</b>	10-foot-wide structure setback is required from upland edge of the entire buffer. Improvements listed in KZC 90.140 are permitted within the setback.
<b>Activities, Improvements and Uses in Streams</b>	Activities, improvements and uses shall be prohibited within streams and associated buffers, except those exempted or permitted subject to development standards in KZC 90.35 and 90.40, or those approved under another City review process in this chapter.
<b>Modifications to Stream and Impacts to Associated Buffer</b>	<ul style="list-style-type: none"> <li>• <del>Modification to streams and related impacts to buffers require approval pursuant to Process I, Chapter 145 KZC along with a critical area report, mitigation sequencing, and mitigation plan. See KZC 90.70, 90.110 and 90.145.</del></li> <li>• Buffer standards may be modified for vehicular access to a property that is both a legal building site and a buildable site pursuant to KZC 90.40, for daylighting a stream pursuant to KZC 90.75, and for <del>an interrupted limited</del> buffer <u>waivers</u> pursuant to KZC 90.120. Also, see KZC 90.185, Nonconformances.</li> <li>• Impacts to stream buffers shall be mitigated at a minimum of a 1:1 ratio.</li> <li>• Daylighting of a stream is encouraged. The Planning Official makes decision unless it is part of approval pursuant to Process I, Chapter 145 KZC. See KZC 90.75.</li> </ul>

(Ord. 4551 § 3, 2017)

### 90.70 Stream Modification

1. Applicability- This section does not apply to stream modifications or stream buffer modifications that may be approved in certain circumstances under a reasonable use exception pursuant to KZC 90.180; permitted activities, improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; or programmatic permit- public agency and public utility pursuant to KZC 90.50

2. Stream Modification – Modifications to streams and associated impacts to buffers are prohibited, except as approved as part of a stream modification in this section. ~~Stream modifications may also be approved in certain circumstances under permitted activities, improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; programmatic permit – public agency and public utility pursuant to KZC 90.50; or reasonable use exception pursuant to KZC 90.180.~~

The following stream modifications may be considered:

- Stream crossings for Type F streams (see KZC 90.40 for Type Np and Ns);
- Culverts and bridges;
- Change in meandering course of a stream;
- Relocation of a Type NS or NP stream. Relocation of a Type F stream is not permitted; and
- Impacts to buffers associated with a stream modification.

23. Limited Buffer Modification – A stream buffer may ~~not only~~ be modified or otherwise reduced ~~as, except if~~ part of an approved stream or buffer modification in this section ~~or. Stream buffer modifications may also be approved~~ in limited circumstances under permitted activities, ~~i~~ improvements or uses subject to development standards pursuant to KZC 90.40; public agency and public utility exceptions pursuant to KZC 90.45; programmatic permits – public agency and public utility pursuant to KZC 90.50, ~~i~~ or reasonable use exception pursuant to KZC 90.180.

The following stream buffer modifications may also be proposed in conjunction with the following sections:

a. Impacts to associated buffer as part of stream modification, pursuant to 90.70.2.

~~a~~b. Change to meandering course of a stream pursuant to KZC 90.80;

~~b~~c. Daylighting of a stream pursuant to KZC 90.~~80~~75;

~~e~~d. Buffer averaging permitted pursuant to KZC 90.115; or

~~d~~e. ~~Interrupted-Limited~~ buffer waivers permitted pursuant to KZC 90.120.

~~34.~~ Process – ~~Any All proposals in subsection 2 and subsection 3.a above shall to modify a stream and buffer shall~~ be reviewed and decided upon pursuant to Process I, described in Chapter 145 KZC. All proposals in subsection 3.b through 3.e above shall be decided upon by the Planning Official.

~~45.~~ Decisional Criteria – For all proposals in subsection 3.b through 3.e above, refer to the decisional criteria in the applicable section. For proposals in subsection 2 and 3.a above, In addition to criteria of Process I, the Planning Director shall only approve a modification to a stream and impact to the buffer if:

a. Mitigation sequencing requirements have been met. See KZC 90.145; and

b. The applicant has demonstrated, where applicable, based on information provided by a civil engineer and a qualified critical area professional approved by the City, that:

- 1) It will not be detrimental to fish habitat, including fill material that contains organic or inorganic material;
- 2) It will not have an adverse effect on drainage, storm water detention capabilities and base flood storage volume and function;
- 3) It will not have an adverse effect on water quality or frequently flooded areas;
- 4) It will not increase velocity upstream or downstream;
- 5) It will not increase sediment load upstream or downstream;
- 6) It will not result in unstable geologic and soil conditions and slope conditions or create an erosion hazard or contribute to scouring actions;
- 7) All exposed areas are stabilized with vegetation normally associated with native stream buffers, as appropriate;
- 8) Existing native trees and other native vegetation are retained to the maximum extent feasible given site conditions and the proposal;
- 9) The stream modification plan is sufficient to mitigate identified impacts;
- 10) For streams placed in culverts or stream crossings, fish passage will not be impaired and the Washington State Department of Fish and Wildlife's design criteria for road culverts for fish passage are met;
- 11) For change in meandering course for the stream, demonstrate that the change is the only feasible option to stop excessive erosion to protect legally established buildings that cannot be achieved through streambank stabilization and will improve the overall functions and value of the stream;
- 12) For stream crossings, demonstrate that crossings shall have no adverse impact on instream habitat and flow conveyance;

13) For relocation of a Type Ns or Np stream, demonstrate that relocation would improve stream functions; and

14) With the exception of meandering a stream, submit a statement signed by each owner of all adjacent affected properties consenting to the modification if it results in creation or expansion of a stream or stream buffer on their properties.

The stream and/or associated buffer modification plan, the additional requirements in subsection (7) of this section and any conditions of approval shall be conditions for all related land surface modification and/or building permit approvals.

**56.** Stream Modification Assessment – As part of the application for a modification, the applicant shall submit a stream modification assessment prepared by a qualified critical area professional approved by the City. The applicant shall also fund the City's peer review of the assessment. The assessment shall contain:

- a. The City's final stream determination decision pursuant to KZC 90.105 and critical area report pursuant to KZC 90.110, including the vegetative buffer assessment, and a survey of the stream and its buffer;
- b. Description of the proposed modification to the stream and impact to the associated buffer if applicable;
- c. Analysis of mitigation sequencing and proposed mitigation as required in KZC 90.145. If the vegetative buffer standards are required under KZC 90.130, the enhanced buffer may not be used towards mitigating a proposed impacted buffer;
- d. Modeling of impacts to stream;
- e. Evaluation of the effects of the proposed modification on the functions and values of the stream and the buffer, including on water quality and fish and wildlife habitat pursuant to KZC 90.95; and
- f. Any other information or studies determined necessary by the Planning Official.

**67.** Stream Modification Plan – As part of the application for a modification, the applicant shall submit a stream modification plan prepared by a qualified critical area professional approved by the City. Also, the applicant shall fund the City's peer review of the plan. The plan shall contain:

- a. A topographic survey showing existing and proposed topography and improvements;
- b. Schedule of the project for all work;
- c. Written description of how the proposed modification plan will mitigate any adverse impacts identified in the stream modification assessment and any associated impact to the buffer if applicable in subsection (5) of this section;
- d. Written description of how the proposed modification plan will improve water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream;
- e. Detailed vegetation plan for stream channel if applicable and stream buffer vegetation meeting the vegetative buffer standard in KZC 90.130;
- f. For an impacted stream buffer, propose mitigation at a minimum of 1:1 ratio depending on the location and functions of impacts and proposed mitigation, including consideration of vegetation structure, slope and flow paths;
- g. Demonstrate that flow and velocity of the stream after modification shall not be increased or decreased at the points where the stream enters and leaves the subject property, unless the change has been approved by the City to improve fish and wildlife habitat or to improve storm water management;

- h. Protective measures needed, such as siltation prevention measures and scheduling the construction activity to avoid interference with fisheries rearing and spawning activities;
  - i. Description of performance standards for post-installation, a monitoring and maintenance schedule along with a financial security estimate for the entire mitigation plan that meet the standards in KZC 90.160 and 90.165;
  - j. For stream channel relocation or meandered stream, a survey of the new location of the stream;
  - k. For stream channel relocation, meandered stream, a new or replacement stream crossing or culvert, demonstrate that the stream channel, or crossing or culvert can accommodate flow and velocity of 100-year storm events;
  - l. For stream channel relocation, including for a meandering stream, prior to diverting water into a new stream channel, a qualified critical area professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section prior to diverting the stream. Cost The applicant shall fund the cost of the inspection and report, and peer review by the City shall be funded by the applicant;
  - m. For stream crossings and culverts:
    - 1) Demonstrate that there is no other feasible alternative route for the crossing with less impact on the environment;
    - 2) Designed shall meet Washington State Department of Fish and Wildlife design standards for fish passage projects;
    - 3) For crossings over Type F streams, only bridge structures, bottomless culverts or other appropriate methods shall be used that provide fisheries protection and fish passage;
    - 4) For crossings for all other streams, bridge or bottomless culvert is preferred over traditional pipe-style culvert. Where culverts are applicable, single barrels shall be used;
    - 5) Roads and associated crossings shall be perpendicular to the stream to the maximum extent feasible;
  - n. For changing the meandering course of the stream or relocating a stream, show that the design achieves:
    - 1) Creation of natural meander patterns;
    - 2) Formation of gentle and stable side slopes, no steeper than two (2) feet horizontal to one (1) foot vertical, and the installation of both temporary and permanent erosion-control features that includes native vegetation on stream banks. The steepness of the slope of the stream may be modified given existing conditions;
    - 3) Native vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife and approved by the City;
    - 4) Restoration of water flow characteristics compatible with fish habitat areas; and
  - o. For changing the meandering of a stream course, see buffer reduction option in KZC 90.80.
78. Additional Requirements for Stream Modification
- a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;

- b. Work must be done during the summer low flow and timed to avoid stream disturbance during periods when use of the stream is critical to fish consistent with the Department of Fish and Wildlife construction window; if applicable;
- c. For stream crossings and culverts, record a perpetual maintenance agreement on a form approved by the City for continued maintenance of the stream crossing and culvert;
- d. For changing the meandering of a stream course, a survey must be provided of the new stream course;
- e. If a proposed stream modification will result in the creation or expansion of a stream or its buffer on any adjacent property other than the subject property, a statement signed by the owners of all affected properties, in a form approved by the City Attorney, shall be submitted with the modification application and recorded in the King County Recorder's Office. The statement shall consent to the critical area and/or buffer creation or increase on the other property. Exempt from this provision is a meandering stream. See buffer reduction option in KZC 90.80; and
- f. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

(Ord. 4551 § 3, 2017)

### 90.75 Daylighting of Streams

1. Daylighting – The City encourages opening up a stream that is located in a culvert to restore the stream to a more natural and open condition. The purpose is to improve the values and functions of the stream, including maintaining water quality, reducing storm and flooding water flow, and providing wildlife habitat.
2. Process – The Planning Official may approve removal of a stream from a culvert based on a critical area report pursuant to KZC 90.110 and an approved stream daylighting plan prepared by a qualified critical area professional approved by the City.
3. Stream Daylighting Plan – The plan shall include the following:
  - a. Detailed site plan of existing improvements and utilities in relationship to the daylighting, topography, daylighted stream course, hydrologic flow before and after daylighting and where the daylighted stream will connect once the culvert is removed;
  - b. Demonstrate that the design achieves:
    - 1) Creation of natural meander patterns;
    - 2) Formation of gentle and stable side slopes, no steeper than two (2) feet horizontal to one (1) foot vertical, and the installation of both temporary and permanent erosion-control features that includes native vegetation on stream banks. The steepness of the slope of the stream may be modified given existing conditions;
    - 3) Native vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife and approved by the City;
    - 4) Restoration of water flow characteristics compatible with fish habitat areas; and
  - c. Prior to placing the stream into a new stream channel, a qualified critical area professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section prior to daylighting the stream. Cost of the inspection and report shall be funded by the applicant. The applicant shall also fund the cost of peer review by the City if such review is deemed necessary by the Planning Official;
  - d. A survey of the daylighted stream;
  - e. Stream channel planting plan using appropriate native stream vegetation;



- f. Vegetative buffer plan meeting KZC 90.130, except as permitted to be reduced pursuant to KZC 90.80; and
  - g. Any other information deemed necessary by the Planning Official. See requirements for stream modification plan pursuant to KZC 90.70.
4. Requirement to Daylight a Stream – The City may require a stream to be daylighted as part of a Process IIA pursuant to Chapter 150 KZC or IIB permit pursuant to Chapter 152 KZC if the required daylighting is proportionate to the scope and nature of the Process IIA or IIB permit. Where stream daylighting is required, the applicant shall submit a plan as outlined in subsection (3) of this section.

(Ord. 4551 § 3, 2017)

#### **90.80 Buffer Reduction for Meandering or Daylighting of Stream**

##### **1. On-Site Stream Buffer Reduction**

- a. A reduction to the required stream buffer standard may only be approved as part of approval for:
  - 1) Changing the course to create a meandering stream if the modification improves instream habitat and flow conveyance; or
  - 2) Daylighting a stream.
- b. The buffer width reduction shall be the minimum necessary to accommodate existing and proposed improvements and/or site conditions; and
- c. For any reduction in the buffer, the required vegetative standards in KZC 90.130 shall be increased proportionally to the extent feasible based on an appropriate planting density within the reduced buffer to mitigate the impact to the critical area.

##### **2. Off-Site Stream Buffer Waiver**

- a. The buffer standard requirements for adjacent properties shall not increase due to the deliberate change in the meandering course of the stream or daylighting of a stream;
- b. The City shall record the buffer waiver on the title of those affected properties with King County Recorder's Office. The City shall contact any affected property owners in writing to notify them of the buffer waiver notice and the applicable survey, and to determine if the property owner chooses to opt out having the notice and survey recorded on their property title;
- c. The applicant shall pay for the fees to record the buffer waiver notice and the survey; and
- d. There is no waiver to the existing buffer requirement prior to the change in the adjacent stream, or to any future change to the City's buffer standards.

(Ord. 4551 § 3, 2017)

#### **90.85 Stream Channel Stabilization**

1. When Permitted – Stream channel stabilization may be permitted if demonstrated to be necessary for the following:

- a. Protecting existing legal structures and/or utilities that serve the structure(s), public facilities or improvements, unique natural resources determined by the City or where erosion results from the stream channel itself, rather than from unregulated storm water flows to its banks; or
- b. Providing the only feasible vehicular access to a property.

##### **2. Stabilization Measures Options**

- a. Measures including vegetation enhancement, upland drainage control, or protective walls or embankments placed outside of the stream and buffer shall be considered and utilized where feasible.
- b. Soft-bank stabilization measures may only be used if it is demonstrated that the measures in subsection (2)(a) of this section are not a feasible alternative due to site-specific soil, geologic, and/or hydrologic conditions, or location of existing primary structures, utilities or public facilities. The soft-bank stabilization measures may include bank enhancement, anchor trees, gravel placement, stepped back rockeries, vegetative plantings and similar measures that use natural materials engineered to preserve functions and values of the stream.
- c. Hard-bank stabilization measures may only be used if it is demonstrated first that the measures in subsections (2)(a) and (b) of this section are not feasible due to site-specific soil, geologic and/or hydrologic conditions. Hard-bank measures may include rock revetments, gabions, retaining walls, bulkheads and similar measures that present a vertical or nearly vertical interface with the water.

3. Process – ~~Any proposal for stream channel stabilization shall be reviewed and decided upon pursuant to a Process I, described in Chapter 145 KZC. The Planning Official may approve a stream stabilization based on the criteria in (4) below.~~

4. Decisional Criteria – ~~In addition to criteria of Process I, t~~The Planning ~~Director~~ Official shall only approve stream channel stabilization if:

- a. Mitigation sequencing found in KZC 90.145 has been met;
- b. There is a demonstrated risk to legal primary structures and/or utilities due to erosion or slope failure and that stabilization is necessary to prevent damage to these improvements;
- c. Stream channel stabilization plan will prevent stream bank erosion while minimizing impacts to the stream and the buffer; and
  - 1) For proposed hard-bank measures, show evidence that soft-bank measures cannot be used, consistent with subsection (2)(b) of this section;
  - 2) The ability of both permanent and temporary impacts to the stream can be mitigated.
- d. There will be no adverse impact to water quality;
- e. There will be no adverse impact to fish, wildlife, and their habitat;
- f. There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;
- g. There will be no decrease in flood storage volumes; and
- h. The installation of the stabilization measure will not lead to unstable earth conditions, create erosion hazards or contribute to scouring actions.

The stream channel stabilization plan, the additional requirements in subsection (7) of this section and any conditions of approval shall be conditions for all related land surface modification and/or building permit approvals.

5. Streambank Assessment – As part of the application for stream channel stabilization, the applicant shall submit a streambank assessment prepared by a qualified critical area professional approved by the City. The applicant shall also fund the City's peer review of the assessment. The assessment shall contain the following:

- a. The City's stream determination decision pursuant to KZC 90.105 and the critical area report pursuant to KZC 90.110, including the vegetative buffer assessment, and a survey of the stream and its buffer;

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- b. Level and extent of risk to a primary structure and/or utilities due to erosion or slope failure and the ability of the proposed measure to mitigate that risk;
  - c. Description of the proposed modification to the streambank;
  - d. Analysis of mitigation sequencing in KZC 90.145;
  - e. Description of the proposed method to stabilize a streambank and why the method must be used. If soft or hard stabilization is proposed, justify its use;
  - f. Whether the level and extent of risk of damage from erosion is substantially more compared to the environmental impact of the proposed disturbance to the stream, including any continued impacts on functions and values over time;
  - g. Evaluation of the effects of the proposed stream channel stabilization on the functions and values of the stream and the buffer, including on water quality and fish habitat, and suitability of the proposed stabilization;
  - h. The ability of both permanent and temporary impacts to the stream and fish passage can be mitigated; and
  - i. Any other information or studies determined necessary by the Planning Official.
6. Stream Channel Stabilization Plan – The plan shall include the following:
- a. Detailed site plan and cross elevation of the stabilization measure in relationship to the stream, topography, soil conditions and existing improvements; and
  - b. Explanation on how the stream channel stabilization measure is consistent with Washington State Department of Fish and Wildlife’s guidelines on streambank protection;
7. Additional Requirements for Stream Channel Stabilization
- a. All work shall be carried out under the direct supervision of a qualified critical area professional approved by the City and paid for by the applicant during all phases of the project;
  - b. Work must be done during the summer low flow and timed to avoid stream disturbance during periods when use of the stream is critical to fish consistent with the Washington State Department of Fish and Wildlife construction window; if applicable; and
  - c. Any required state and federal permits and authorizations shall be obtained prior to conducting site work.

(Ord. 4551 § 3, 2017)

#### **90.90 Minor Lakes – Totem Lake and Forbes Lake**

The majority, if not the entirety, of the perimeters of Totem Lake and Forbes Lake are wetlands. All activities in the shallow areas of the lakes relating to contiguous wetlands located above the ~~high waterline~~ordinary high water mark are regulated pursuant to KZC 90.55 and 90.60.

Activities and uses waterward of the lakes’ perimeter wetlands and outside of the wetland shall be regulated as follows:

- 1. General Standards – As part of a permit or approval under this chapter, the City may require maintenance or rehabilitation of the lake as part of a project by removing material detrimental to the lake, such as inorganic debris, sediment, or nonnative vegetation. Rehabilitation is required when an existing condition is detrimental to water quality or habitat.
- 2. Moorage Facilities – Moorage facilities may be constructed, expanded or replaced using the process and meeting the standards below.

- a. Process – Any proposal for a moorage facility shall be reviewed and decided upon pursuant to a Process I, described in Chapter 145 KZC.
- b. Decision Criteria – A new, expanded or replaced moorage structure may be approved if the standards in subsection (2)(c) of this section are met.
- c. Standards
  - 1) Moorage structure shall not extend farther than 25 feet waterward of the ordinary high water linemark;
  - 2) Only one (1) moorage structure may be located on a subject property;
  - 3) It is accessory to an allowed use on the subject property;
  - 4) Moorage structure associated with a dwelling unit shall be for the exclusive use of the residents and guests of the associated dwelling unit. Structures shall not be leased, rented or sold;
  - 5) Moorage structure shall not be treated with creosote or oil base or toxic substances;
  - 6) Any existing in-water structures abandoned or in disrepair must be removed as part of a new permit;
  - 7) A critical area determination shall be made pursuant to KZC 90.105 and a critical area report shall be prepared pursuant to KZC 90.110 to assess impacts to wetlands and streams and any wildlife habitat area due to construction and use of the moorage structures. If any impacts are identified, a mitigation plan shall be prepared and implemented pursuant to KZC 90.145 and 90.150; and
  - 8) For pedestrian access trails or boardwalks, see KZC 90.40.
3. Repair of Moorage Facilities – Moorage facilities may be repaired and maintained as an exempted activity pursuant to KZC 90.35, but they may not be reconstructed or expanded under repair and maintenance.
4. Viewing Platforms
  - a. Public viewing platforms in a lake associated with a public park may be approved as part of a Park Master Plan process, pursuant to KZC 90.40(6).
  - b. If the platform would be located in a wetland, the final critical area determination and critical report is required pursuant to KZC 90.105 and 90.110, and mitigation is required pursuant to KZC 90.145 and 90.150.
  - c. The platform shall not be treated with creosote or oil base or toxic substances.
  - d. Private viewing platforms are not permitted.
5. Public Park – Construction of a park associated with a minor lake shall be reviewed through a Park Master Plan process, pursuant to KZC 90.40(6).

(Ord. 4551 § 3, 2017)

### **90.95 Fish and Wildlife Habitat Conservation Areas**

1. Location of Fish and Wildlife Habitat Areas
  - a. Fish and wildlife habitat conservation areas can be found in or near critical areas, forested areas or Lake Washington.
  - b. Fish habitat is protected under the provisions of KZC 90.65, Streams and Associated Buffer Standards. Thus, the provisions in subsections (3) through (7) of this section do not apply to fish habitat.

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2. Criteria – Fish and wildlife habitat conservation areas are those that meet one or more of the following species listed and habitat criteria:

a. State or federally designated endangered, threatened, and sensitive species that have a primary association with the habitat area.

b. State priority habitats and habitats with which State priority species have a primary association that are located in the City. Those in Kirkland are deemed to be Habitats and Species of Local Importance.

3. Wildlife Habitat Conservation Area Assessment – As part of a critical area report pursuant to KZC 90.110, a determination shall be made if a wildlife habitat conservation area exists on the subject property or near the property by a qualified critical area professional approved by the City with experience preparing reports for the relevant type of habitat. The assessment shall include the following information:

a. Evaluation – Evaluation of the presence or absence of potential wildlife habitat on the subject property or within the vicinity. A wildlife habitat assessment shall include the following information:

- 1) Identification of state priority species, or state or federally listed endangered, threatened or sensitive species that have a primary association with habitat on or in the vicinity of the property;
- 2) Extent of wildlife habitat areas, including acreage, and required buffers based on the species;
- 3) Vegetative, faunal, and hydrologic characteristics;
- 4) Evaluation of direct and indirect potential impacts on habitat by the project, including potential impacts to water quality; and
- 5) A discussion of any federal, state, or local special management recommendations, including Washington State Department of Fish and Wildlife habitat management recommendations that have been developed for the species or habitats.

b. Maps – The following maps shall be used in the evaluation:

- 1) Washington State Department of Fish and Wildlife priority habitat and species maps; and
- 2) Federal and state information and maps related to those species and habitat identified in subsection (2) of this section.

4. Process – Modification to wildlife habitat conservation areas shall be proposed as part of the required critical area approval under this chapter for a project.

5. Decisional Criteria – Modification to wildlife habitat conservation areas may only be approved if the following criteria are met:

- a. Mitigation sequencing is met pursuant to KZC 90.145;
- b. It can be demonstrated that required habitat areas can be protected through implementation of protection measures in accordance with a management plan; and
- c. It can be demonstrated that the management plan and requirements in subsections (6) and (7) of this section can be met with the proposed project.

6. Wildlife Habitat Management Plan

a. A wildlife habitat management plan shall be prepared by a qualified critical area professional with experience preparing reports for the relevant type of habitat and approved by the City and based on recommendations from the Washington State Department of Fish and Wildlife;

- b. The applicant shall fund the cost and implementation of the management plan, and also fund peer review by the City of the management plan;
  - c. The plan shall establish:
    - 1) Seasonal restriction of construction activities as determined by the Washington State Department of Fish and Wildlife;
    - 2) Duration and timetable for periodic review of mitigation activities;
    - 3) Vegetative buffer widths that reflect the sensitivity of the habitat and the type and intensity of activity or use proposed to be conducted nearby. The buffer widths shall be consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife and U.S Fish and Wildlife Services;
    - 4) Measures to provide appropriate wildlife corridor for the conservation of the species if a wetland scoring ~~five-six (56)~~ or greater habitat points is within 300 feet of the habitat area;
    - 5) Limitations on pesticide and herbicide use in conservation area; and
    - 6) Monitoring and maintenance program for the mitigating measures. The applicant shall fund the monitoring and maintenance program and also fund peer review by the City. Installation of vegetation shall follow the monitoring and maintenance schedule for a five-year program pursuant to KZC 90.160;
  - d. Clustering of a development shall be considered in the plan if a project contains more than one (1) dwelling unit or building if it would provide less impact and/or greater protection of the conservation area; and
  - e. Consultation with the Washington State Department of Fish and Wildlife, affected tribes or other appropriate agency regarding the effectiveness of any proposed mitigating measures shall occur if the Planning Official determines that it is needed.
7. Standard Requirements for Wildlife Habitat Conservation Area – Improvements, structures or activities located in or near wildlife habitat conservation areas shall meet the following standards:
- a. Preservation of critically important vegetation and/or habitat features, such as large trees, snags and downed wood;
  - b. Buffers shall consist of an undisturbed area of native vegetation or areas identified in a management plan for restoration to protect the integrity, functions, and values of the affected habitat;
  - c. Limitation of access to the wildlife habitat area, including fencing and signage, to deter unauthorized access;
  - d. Introduction of any plant or wildlife not indigenous to the region shall be prohibited unless authorized by a state or federal approval;
  - e. A performance, monitoring and maintenance security shall be submitted pursuant to KZC 90.165 to ensure completion and success of proposed mitigation; and
  - f. The management plan shall be implemented through the life of the use or activity.
8. Designation of Wildlife Habitats or Species of Local Importance – The City may designate additional habitat or species of local importance as an amendment to the definition in Chapter 5 KZC.

(Ord. 4551 § 3, 2017)

**90.100 Frequently Flooded Areas**

No disturbance or land surface modification may take place and no improvements or activities may be located in frequently flooded areas that are areas of special flood hazard, except as specifically provided in Chapter 21.56 KMC, Flood Damage Prevention. See Federal Emergency Management Agency (FEMA) for flood maps.

(Ord. 4551 § 3, 2017)

**GENERAL STANDARDS****90.105 Critical Area Determination**

1. Initial Determination – Either prior to or during review of a development application, the Planning Official shall make an initial assessment based on a site inspection and other information as to whether:
  - a. A wetland is present on any portion of the subject property or surrounding area within 300 feet of the subject property. If a site inspection does not indicate the presence of a wetland on the subject property or within 300 feet of the subject property, no additional wetland assessment will be required.
  - b. If the initial determination indicates that a wetland exists or may exist on the subject property or within 300 feet of the subject property and/or a stream exists on the subject property or within 125 feet of the subject property, then the applicant shall have a critical area report prepared pursuant to KZC 90.110.
  - c. A stream is present on any portion of the subject property or surrounding area within 125 feet of the subject property. If a site inspection does not indicate a stream on or within 125 feet of the subject property, no additional stream assessment will be required.
  - d. If the Planning Official is not able to determine the classification of a stream or is uncertain if a watercourse is classified as a stream, a critical area report shall include a recommendation on a stream determination as to whether the site does contain a stream, and if so, its classification. If the critical area report determines that no stream exists on or within 125 feet of the subject property, no further assessment is needed.
2. Final Determination – The Planning Official shall make a final determination based on the critical area report. As part of the critical area determination, the Planning Official shall determine:
  - a. The critical area boundaries, wetland category and rating and/or stream classification;
  - b. The location of the buffer and buffer width standards for the critical area;
  - c. Whether the wetland or stream needs to be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, what measures are needed;
  - d. Whether the required buffer meets the vegetative standards found in KZC 90.130. If not, what changes need to be made to the buffer to meet the standard;
  - e. Whether the subject property contains or is within the vicinity of a known habitat for species that are federally or state listed pursuant to KZC 90.95; and
  - f. Whether the standard buffer width must be increased due to severe erosion area, fish and wildlife habitat conservation area or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125.
3. Development Review – The determination shall apply to any development permit application or request that would modify a site that includes a critical area or associated buffer, other than those exempted pursuant to KZC 90.35.
4. Validity of Determination – The critical area determination is valid for five (5) years from the date of the decision. However, the Planning Official may modify the final critical area determination whenever physical circumstances have markedly and demonstrably changed on the subject property or within 300 feet of the subject property for wetlands and 125 feet for streams because of natural processes or authorized human activity.



### 90.110 Critical Area Report

1. General – An application for a development permit that includes a critical area and/or its buffer, except those exempted pursuant to KZC 90.35, shall provide a critical area report that uses the best available science to evaluate the proposal and all probable impacts.

2. Preparation of Report

a. The critical area report shall be prepared by a qualified critical area professional.

b. The applicant shall either:

1) Fund a report prepared by the City or the City's consultant; or

2) Submit a report prepared by a qualified critical area professional approved by the City. In addition, fund a peer review of the critical area report by the City or the City's consultant.

3. Report Format – The critical area report shall be provided in electronic form. The City may establish specific administrative requirements for the format of the report.

4. Report Content – General – A critical area report shall evaluate the subject property and critical areas within 300 feet of the subject property for wetlands and 125 feet for streams. A critical area report shall include the following information:

a. The name and contact information of the applicant; the name, qualifications, and contact information from the primary author(s) of the report;

b. Documentation of any fieldwork performed on the site, including field data sheets for wetland delineation and rating system forms, stream classification, baseline hydrologic data;

c. A description of the methodologies used to conduct the wetland delineations and rating system forms, stream classification if done as part of the critical area report, and impact analyses including references;

d. Identification, characterization and boundaries of all critical area, and buffers on or adjacent to the subject property. For areas off site of the subject property, estimated conditions within 300 feet of the subject property boundaries for a wetland and 125 feet of a stream using the best available information;

e. A vicinity map and a site plan of the property, drawn to scale, with existing improvements and site features, including significant trees;

f. Project narrative describing the proposal; anticipated temporary and permanent impacts to critical area or its buffer, construction activities and sequencing of construction, and other relevant information;

g. A description of existing native, ornamental or invasive vegetation, fauna, and hydrologic characteristics found in the critical area and its buffer both on-site and on adjacent properties;

h. An assessment of existing vegetation in the required buffer and whether it meets the vegetative buffer standards found in KZC 90.130(2) if the development threshold of KZC 90.130 is met. If the vegetation in the buffer does not meet the vegetative standards, submit a detailed preliminary revegetation plan meeting KZC 90.130(2) is required within the timeframe established in KZC 90.130.6. If revegetation of the buffer is part of a stream or wetland modification proposal (Section 90.60 or Section 90.70), a public agency exception (Section 90.45), daylighting of a stream (Section 90.75), meandering a stream (Section 90.80) or stream channel stabilization (Section 90.85), the plan must be a detailed final re-vegetation plan must be submitted with those applications. – a detailed final revegetation plan;

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- i. An assessment of whether the wetland or stream needs to be restored due to degraded vegetation, wildlife habitat, water quality and hydrologic functions, and if so, what measures are needed;
  - j. An assessment of whether the standard buffer width must be increased due to severe erosion area, fish and wildlife habitat conservation area or frequently flooded area on or adjacent to the subject property pursuant to KZC 90.125;
  - k. An assessment of any existing habitat for species that are federally or state listed or priority species, including species of local importance pursuant to KZC 90.95 on the subject property or in the vicinity;
  - l. A professional survey as specified in subsection (7) of this section;
  - m. A statement specifying the accuracy of the report and all assumptions made and relied upon; and
  - n. Any other information deemed necessary by the Planning Official.
5. Additional Report Content – Wetlands – In addition to the requirements for the general report content pursuant to subsection (4) of this section, the critical area report shall include:
- a. Identification of wetlands and delineation of their boundaries in accordance with the current approved federal delineation manual and applicable regional supplements described in WAC 173-22-035, as amended. All determinations and delineations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, existing improvements or features;
  - b. Wetland rating and category including the rationale for the proposed rating and the required buffer based on the regulations in this code;
  - c. A completed Army Corps of Engineers Wetland Field Data Form;
  - d. Existing wetland acreage that may be approximated if the wetland extends onto adjacent properties;
  - e. Soil and substrate conditions;
  - f. A description of historical hydrologic, vegetative, habitat, topographic, and soil modifications, if any; and
  - g. Description of the water sources entering and leaving the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year – drift lines, algal layers, water marks, and sediment deposits).
6. Additional Report Content – Streams – In addition to the requirements for the general report content pursuant to subsection (4) of this section, the critical area report shall include the stream classification and rationale, based on WAC 222-16-030, as amended. Best available information shall be used to determine if fish are present in the stream given known fish barriers and other conditions.
7. Professional Survey and Measuring Buffer Boundary
- a. The survey shall be based on the King County Datum (NAVD 88 vertical, NAD 83/91 horizontal) and shall indicate the temporary or permanent benchmark used in the survey depicting:
    - 1) The approved delineation marking of a wetland and/or buffer boundary on the subject property and an estimate of the location of off-site wetlands and buffers within 300 feet of the subject property, based on the determined wetland category and rating, and the buffer standards in this chapter; and/or
    - 2) The ordinary high water mark (OHWM) of any stream or the opening of a pipe where any stream enters or exits a pipe and/or any buffer surveyed on the subject property and an estimate of the location of any off-site stream and buffer within 125 feet of the subject property based on the stream classification determination and the buffer standards in this chapter.

- b. For wetlands, buffer widths shall be measured along the outer edge of the entire wetland.
  - c. For streams, buffer widths shall be measured outward in each direction on the horizontal plane from the OHWM or from the top of the bank if the OHWM cannot be identified (see Chapter 180 KZC, Plate 16). Where a stream enters or exits a pipe, the buffer shall be measured perpendicular at the pipe opening (see Chapter 180 KZC, Plate 16A).
8. Site and Construction Plans – For a site proposed to be developed, the critical area report shall include general plans showing the following:
- a. Site plan-view cross-sectional drawings;
  - b. Slope gradients, and existing and final grade elevations at two-foot intervals;
  - c. The type and extent of all critical areas and buffers on the subject property and an estimate of any off-site critical areas and buffer within 300 feet of any wetland and 125 feet of any stream measured from the subject property;
  - d. An approximate location of springs, steeps, surface water runoff features, or other surface expressions of groundwater on or within 300 feet of a wetland and 125 feet of a stream from the subject property;
  - e. Proposed development, including the location of existing and proposed structures, fill, grading clearing limits with dimensions indicating distances to the critical area, areas of proposed impacts to the critical areas and/or buffers (include square footage estimates), and storage of construction materials and equipment if available;
  - f. A depiction of the proposed storm water management facility and outlets for the project, including estimated areas of permanent and temporary intrusion into the critical area buffer;
  - g. Other drawings to demonstrate construction techniques; and
  - h. Any other information deemed necessary by the Planning Official.
9. Waiver – The Planning Official may waive the requirement of certain information for the report if it is determined that:
- a. The information is not needed to evaluate a critical area or requirement of this chapter; or
  - b. If the development proposal will affect only a part of the subject property, the Planning Official may limit the scope of the required report to include only that part of the site that would be affected by the development.

(Ord. 4551 § 3, 2017)

### **90.115 Buffer Averaging**

- 1. Applicability – Buffer averaging may be applied to wetland and stream buffers. Both the standard buffer and the alternative buffer may use buffer averaging pursuant to this section.
- 2. Standards – Averaging of buffer widths for either the standard buffer or alternative buffer may only be allowed if all of the following criteria are met as demonstrated in a critical area report:
  - a. The applicable standard buffer or alternative buffer width is not reduced below 75 percent of the required width in any location;
  - b. The total area contained in the buffer area after averaging is no less than that which would be contained within the applicable standard buffer or alternative buffer and must be contiguous to the buffer;
  - c. Buffer averaging will provide additional protection to the critical area and result in a net improvement of the critical area habitat, functions, and values; and

d. The critical area contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation, and the wetland or stream would benefit from a wider buffer in one area and would not be adversely impacted by a narrower buffer in another area.

3. Process – The Planning Official makes the decision based on the standards of subsection (2) of this section and review of the critical area report described in KZC 90.110.

(Ord. 4551 § 3, 2017)

### **90.120 Limited Buffer Waivers**

#### **1. Interrupted Buffer Waiver**

a. The Planning Official may waive the required critical area buffer in that portion of the buffer isolated from the critical area where an existing legally established and improved public right-of-way or improved easement road interrupts a portion of the critical area buffer from the portion of the buffer adjacent to the critical area. The Planning Official may require a critical area report be prepared to address the criteria in subsection (1)(d) of this section.

b. The Planning Official may waive the required critical area buffer in that portion of the buffer isolated from the critical area where an existing legally established building, detached garage, accessory dwelling unit, driveway, commercial parking area or retaining wall over six (6) feet in height divides a portion of the critical area buffer from the portion of the buffer adjacent to the critical area. For the buffer waiver to be approved, the applicant must demonstrate conclusively in a critical area report that all of the criteria in subsection (1)(d) of this section are met.

c. A waiver may not be requested for such improvements as fences, sheds, patios, decks or other minor structures and impervious surfaces.

d. The Planning Official may waive the buffer requirement if the waiver request is found to meet the following criteria (see Chapter 180 KZC, Plate 25):

- 1) The existing legal improvement creates a substantial barrier to the buffer function;
- 2) The interrupted buffer does not provide additional protection of the critical area from the proposed development; and
- 3) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.

e. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

#### **2. Type F Stream Limited Buffer Waiver**

a. The Planning Official may partially waive the required buffer for a Type F stream if the stream, while meeting the definition of Type F, does not currently support fish use due to the presence of a substantial downstream barrier and fish habitat in the subject area could not reasonably be recovered by restoration or management. The Planning Official shall require a critical area report be prepared to address the criteria in subsection (2)(c) of this section.

b. If, based on analysis of the criteria in 2(c) the Planning Official approves a waiver of the Type F stream buffer, a Type N stream buffer shall apply to the stream within the subject area.

c. The Planning Official may waive the Type F buffer requirement if the waiver request is found to meet the following criteria:

1) The Type F stream otherwise meets the WAC 222-16-030 definition of Type F but does not currently support fish use due to the presence of a substantial downstream barrier(s) and fish habitat in the subject area could not reasonably be recovered by restoration or management as determined by an analysis of the following characteristics:

a) Length or condition of downstream barrier(s);

b) Infrastructure above and adjacent to downstream barrier;

c) Average gradient of barrier;

d) Area and quality of potential fish habitat upstream of barrier.

d. If the applicant's consultant prepares the critical area report, the applicant shall also fund peer review of the report by the City's consultant.

e. The Planning Official may apply the limited buffer waiver to other properties along the same stream reach in the immediate vicinity of a prior determination where the same conditions exist. In such cases, the Planning Official may waive the required application and reports.

(Ord. 4551 § 3, 2017)

### **90.125 Increase in Buffer Width Standard**

1. Criteria to Require Increase in Buffer Width – The City shall determine if a critical area buffer must be increased beyond the standards in this chapter based on best available science and the recommendation of a critical area report for a project. The increase in buffer width may be required when a larger buffer is necessary to protect critical area functions and values either on the subject property or on an adjacent property. This determination shall be based on one or more of the following criteria:

a. Severe Erosion Areas – If the critical area buffer abuts land that contains a slope with severe erosion, has minimal vegetative cover and is designated as hazardous in Chapter 85 KZC, and erosion control measures will not effectively prevent adverse impacts on the critical area based on a geotechnical study, a larger buffer shall be required;

b. Fish and Wildlife Habitat Conservation Areas – If the wetland or stream contains documented habitat for state or federally listed endangered, threatened, and sensitive species or state priority species, including species of local importance, a larger buffer may be required to protect the habitat consistent with the management recommendations issued by the Washington State Department of Fish and Wildlife or the United States Fish and Wildlife Services; or

c. Frequently Flooded Areas – If a site contains a frequently flooded area and the frequently flooded area is wider than the buffer standard required for a wetland or stream, the buffer shall be increased to incorporate the entire frequently flooded area.

2. Process – The Planning Official shall make a determination if a buffer width must be increased beyond the standard buffer width based on the critical area report as part of the final critical area determination in KZC 90.105.

(Ord. 4551 § 3, 2017)

### **90.130 Vegetative Buffer Standards**

1. General – The entire wetland buffer width of KZC 90.55 and stream buffer width of KZC 90.65, referred hereafter as the “buffer,” shall be vegetated pursuant to the requirements of this section.

2. Vegetative Buffer Standard – The following vegetative buffer standards shall be met:

a. Native cover of at least 80 percent on average throughout the buffer area. Additionally, the first two of the following strata of native plant species each must compose of at least 20 percent areal cover, and the third may compose no more than 20 percent areal cover:

- 1) Multi-age forest canopy (combination of existing and new vegetation);
- 2) Shrubs; and

- 3) Woody groundcover (such as kinnikinnick, salal and sword fern) or unmowed herbaceous groundcover;
  - b. At least three (3) native species each making up a minimum of 10 percent coverage (for diversity);
  - c. Less than 10 percent noxious weeds cover using King County weed list and permanent removal of all knotweed; and
  - d. Removal of lawn and any illegal fill as determined by the City.
3. When Vegetative Buffer Standard Applies
- a. The complete vegetative buffer standard shall be installed either when:
    - 1) The total new net impervious area and pervious pavement/pavers on the entire subject property exceeds 1,000 square feet, or
    - 2) The cost of new or replacement improvements exceeds 50 percent of the assessed or appraised value of the existing improvements on the entire subject property, whichever is greater. This 50 percent threshold shall not apply to detached dwelling units approved for expansion pursuant to KZC 90.185.
  - b. A partial vegetative buffer shall be installed when:
    - 1) The total new net impervious area and pervious pavement/pavers is between 50 square feet and 1,000 square feet on the subject property.
      - a) The buffer shall be vegetated at a minimum 1:1 ratio (new net impervious area is equal to the total square feet of buffer vegetation) meeting the vegetated buffer standard at the proportional rate of the standard;
      - b) If the new net impervious area results in removal of a significant tree in a buffer, the tree shall be replaced with two (2) native trees in the buffer. The replacement trees shall be six (6) feet tall for a conifer and two-inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24 inches in diameter, the tree shall be replaced with three (3) native trees;
      - c) The vegetated buffer area shall be located in the buffer abutting or nearest to the critical area at a minimum width of 10 feet;
      - d) The location of the vegetation in the buffer shall be across from the new structure footprint and approved by the Planning Official;
    - 2) When a new net impervious surface on the subject property totals less than 50 square feet, no vegetation is required to be planted in the buffer; and
    - 3) For new utility poles the buffer shall be calculated based on the combined area of all new utility pole footprints and be vegetated at a minimum 1:1 ratio (net new impervious area equals total square feet of buffer vegetation), meeting the vegetated buffer standard at a proportional rate.
  - c. For permitted activities, improvements and uses subject to development standards pursuant to KZC 90.40, vegetative buffer requirements will be determined as part of mitigation sequencing.
  - d. For nonconformances, see KZC 90.185.
4. Additional Standards
- a. All existing improvements and structures in a buffer must be removed when the vegetative buffer installation is required pursuant to subsection (3)(a) of this section;

- b. All activities in the buffer must cease, except those permitted under KZC 90.35(12) and (13);
  - c. Native vegetation appropriate for wetlands and streams shall be used based on the City's Critical Areas Plant List. Other vegetation may be proposed if appropriate for the site and approved by the City;
  - d. Trees and shrubs in the buffer shall be located along the bank of streams to provide effective shading of the stream to lower water temperature;
  - e. Existing healthy native vegetation may count towards meeting the requirements if the overall standard is met;
  - f. The City may require amended soil if needed to provide a well-functioning buffer;
  - g. The City may require supplemental mulch to meet the Planning and Building Department standards;
  - h. A reliable temporary irrigation source must be available while the vegetation is being established and the source must be indicated on the planting plan;
  - i. Installation shall be done by hand unless use of mechanical equipment is specifically authorized due to site conditions. By hand includes any handheld equipment that is gas or electric powered;
  - j. A perpetual landscape maintenance agreement, in a form approved by the City, shall be recorded over the vegetated buffer prior to final inspection; and
  - k. Buffers shall not be mowed and animals may not be used to remove weeds, except goats may be used to remove invasive species for only public restoration projects pursuant to KZC 90.35 and 90.40.
5. Process – The Planning Official shall determine whether an existing buffer meets the standards in subsection (2) of this section as part of the final critical area determination based on information in the critical area report.
6. Submittal of Vegetative Buffer Plan – Timing and Contents
- a. When an existing buffer does not meet the standards in subsection (2) of this section, the applicant shall submit a ~~final~~ vegetative buffer plan with the development permit application;
  - b. The vegetative buffer plan shall be prepared by a qualified critical area professional. The applicant shall also submit funds to the City for peer review of the vegetative buffer plan;
  - c. The Planning Official shall approve the plan only if it meets the vegetative buffer standard in this section; and
  - d. If a modification is proposed to a wetland or stream ~~pursuant to (KZC 90.60 or 90.70), a public agency exception (Section 90.45), daylighting of a stream (Section 90.75), meandering a stream (Section 90.80) or stream channel stabilization (Section 90.85), then~~ a detailed final planting plan shall be submitted with the ~~wetland or stream modification plan~~ development permit application.
7. Maintenance, Monitoring and Financial Security – A maintenance and monitoring program pursuant to KZC 90.160 ~~and a financial security pursuant to KZC 90.165 for the vegetative buffer shall be submitted with the building or land surface modification permit application. The financial security pursuant to KZC 90.165 for the vegetative buffer shall be submitted prior to issuance of a building or land surface modification permit or before commencement of an activity. The activity. The maintenance/monitoring program shall be prepared by a qualified critical area professional. The applicant shall fund the cost of peer review by the City.~~
8. Protection and Maintenance of Vegetative Buffer – Critical areas and buffers shall be placed in recorded critical area easements or tracts pursuant to KZC 90.210 and shall be maintained in perpetuity.

(Ord. 4551 § 3, 2017)



**90.135 Trees in Critical Areas and Critical Area Buffer****1. Removal of Trees**

a. Other than as specifically approved as part of a critical area approval under this chapter, no trees shall be removed from a critical area of critical area buffer unless determined to be nuisance or hazardous trees. Any removal shall be authorized in advance through a tree removal permit pursuant to Chapter 95 KZC unless tree removal is an emergency to prevent immediate damage to a structure. In case of an emergency, documentation to the City must be provided within seven (7) days of removal that supports that the tree was a nuisance or hazardous;

b. If a tree in a critical area or its buffer meets the criteria of a nuisance or hazard based on this code at the determination of the Planning Official, then a snag tree shall be created;

c. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official approves tree removal in writing; and

d. Any tree approved to be removed or created as a snag or felled must be replaced with one (1) to three (3) native trees at a minimum height of six (6) feet in the buffer depending on the size, quality and species of removed tree. The Planning Official shall determine the required number of replacement trees.

2. Pruning of Trees – Pruning or topping of trees in critical areas or buffers is prohibited other than City approved creation of snags for nuisance or hazard trees.

(Ord. 4551 § 3, 2017)

**90.140 Structure Setback from Critical Area Buffer**

1. Buildings and other structures shall be set back at least 10 feet from the edge of the wetland or stream buffer to ensure adequate width for construction staging, maintenance and repair of primary buildings and accessory structures, and use of improvements without disturbing the critical area buffer or critical area. This section does not apply to:

a. Category IV wetlands that are less than 1,000 square feet that do not have a buffer requirement and thus no building setback requirement.

b. Those linear utility improvements associated with either permitted activities, improvements or uses or public agency and utility exceptions that have been approved to be located in a critical area or buffer and therefore can traverse the structure setback.

2. The following improvements may extend into the structure setback; provided, that they do not necessitate encroachment into the critical area buffer for construction, maintenance and use. No other improvements are permitted.

**Table 90.140.1 Structure Setback from Critical Area Buffers**

Structure Setback	Improvement	Location within Setback:
<b>10 feet in width from edge of buffer</b>	Chimneys, bay windows, greenhouse windows, eaves, cornices, awnings and canopies, and decks above the ground floor	May extend no more than 18 inches into structure setback
	Uncovered improvements less than 18 inches above finished grade to 4 inches above finished grade, such as ground floor decks, and railings less than 4 feet above finished grade	May extend no more than 5 feet into structure setback
	Uncovered play structures	

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Structure Setback	Improvement	Location within Setback:
	Rockeries and retaining walls that are not more than 4 feet above finished grade	
		May extend no more than 9 feet into structure setback
	Uncovered improvements less than 4 inches above finished grade, such as patios, driveways and parking areas, including curbing	
	Garden sculpture, light fixtures, trellises and similar decorative structures	
	Benches, walkways, paths and pedestrian bridges	
	Bio-retention, such as rain gardens, and dispersion techniques that result in sheet flow such as level spreaders, dispersion trenches, splash blocks and similar techniques	
		May extend to the upland edge of the critical area buffer
	Fence perpendicular to the structure setback at up to 6 feet in height above finished grade	
	Split rail, open slatted with at least 18" spacing, wrought iron and chain link, or similar nonsolid fence parallel to the structure setback up to 6 feet in height above finished grade. Solid fencing is not permitted. Except for split rail, a gate is required for access to the buffer.	Along the entire upland edge of the buffer

(Ord. 4551 § 3, 2017)

#### 90.145 Mitigation – General

1. General – If a modification is proposed to a critical area or buffer, as part of the application the applicant must have the proposal evaluated using mitigation sequencing and then submit a mitigation plan that addresses the impacts to the critical area.

2. Mitigation Sequencing – The intent of mitigation sequencing is to evaluate and implement opportunities to avoid, minimize, eliminate or compensate for impacts to critical areas while still meeting the objectives of the project. When a modification to a critical area and buffer is proposed, the modification shall be avoided, minimized, or compensated for, as outlined by WAC 197-11-768, in the following order of preference:

- a. Avoiding the impact altogether by not taking a certain action or parts of actions;
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
- e. Compensating for the impact by replacing or providing substitute resources or environments; and/or

- f. Monitoring the impacts and compensation projects and taking appropriate corrective measures.
3. Location of Mitigation
  - a. Preference – Preference shall be given to the location of the mitigation in the following order unless it can be demonstrated that off-site in-kind mitigation is ecologically preferable:
    - 1) On-site in-kind;
    - 2) Off-site in City in-kind;
    - 3) Off-site in-kind within the Lake Washington/Cedar/Sammamish Watershed.
  - b. On-Site versus Off-Site Mitigation
    - 1) Mitigation shall occur on-site except when the City determines that the following criteria have been met as part of a proposal under this chapter:
      - a) There is no opportunity for on-site mitigation or on-site opportunities do not have a high likelihood of success due to the size of the property, site constraints, or size and quality of the wetland or location and quality of the stream;
      - b) Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area;
      - c) Off-site locations shall be in the same Water Resource Inventory Area (WRIA) 8 Lake Washington/Cedar/Sammamish Watershed as the impacted critical area; and
      - d) The off-site critical area mitigation will best meet formally established watershed goals for water quality, flood or conveyance, habitat, or other wetland functions that have been established and strongly justify location of mitigation at another site.
    - 2) When considering mitigation outside of the City, preference should be given to using mitigation banking or an in-lieu fee program pursuant to subsection (4) of this section.
4. Responsible Party for Mitigation Site – Mitigation for lost or diminished critical area functions and values for either wetlands or streams shall use the following options:
  - a. Applicant-Responsible Mitigation – The applicant is responsible for the implementation, monitoring and success of the mitigation pursuant to this chapter.
  - b. Non-Applicant Responsible Mitigation – Mitigation Bank and In-Lieu Fee Mitigation
    - 1) Funds are collected from the applicant by the sponsoring agency, nonprofit, private party or jurisdiction. The sponsor is responsible from that point forward for the completion and success of the mitigation. The applicant's fee is based on the project impact and includes all costs for the mitigation, including design, land acquisition, materials, construction, administration, monitoring, and stewardship.
    - 2) Credits purchased by an applicant from a mitigation bank or in-lieu program that is certified under federal and state rules may be used as a method of mitigation if approved by the City to compensate for impacts when all of the following apply:
      - a) The City determines as part of the critical area approval that it would provide appropriate compensation for the proposed impacts;
      - b) Projects shall have debits associated with the proposed impacts calculated by the applicant's qualified critical area professional using the credit assessment method or appropriate method for the

impact as specified in the approved instrument for the program. The assessment shall be reviewed and approved by the City;

c) The proposed use of credits is consistent with the terms and conditions of the certified mitigation bank or in-lieu fee program instrument; and

d) The record of payment for credits shall be provided to the City in advance of the authorized impacts but no later than issuance of the building or land surface modification permit.

c. City-Responsible Mitigation – Advance Mitigation – The City does mitigation on City-owned property as mitigation credit either for City critical area projects or at the discretion of the City for other public agencies with critical area projects. The mitigation program shall be implemented pursuant to federal and state rules, and state water quality regulations.

## 5. Timing of Mitigation

### a. On-Site Mitigation

1) On-site mitigation shall be completed immediately before or following disturbance and prior to use or final inspection of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife and flora; and

2) The Planning Official may allow flexibility with respect to seasonal timing of excavation or planting for mitigation. If on-site mitigation must be completed after final inspection of a building or land surface modification permit or commencement of an activity, a performance financial security shall be required pursuant to KZC 90.165 along with a timeline commitment for completion.

### b. Off-Site Mitigation

1) For in-lieu fee, mitigation bank or advance mitigation programs:

a) Mitigation shall be completed based on the program's established timeline, except advance mitigation shall be completed prior to issuance of the development permit;

b) The applicant shall provide documentation of the proof of purchase of credits for in-lieu fee and mitigation banking in advance of the authorized impacts but no later than issuance of the building or land surface modification permit. However, if the program sponsor requires proof of development permit prior to credit purchase, the documentation may be provided to the City prior to final inspection; and

c) For advanced mitigation, the applicant shall submit documentation of completion of the advance mitigation prior to issuance of a land surface modification or building permit.

2) For all other off-site mitigation:

a) Mitigation shall be completed immediately before or following disturbance and prior to use or final inspection of the activity or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife and flora. The Planning Official may allow flexibility with respect to seasonal timing of excavation or planting for mitigation; and

b) Documentation of the proof of purchase of off-site property shall be provided in advance of the authorized impacts but no later than issuance of the building or land surface modification permit.

6. Mitigation Plan Standards – All critical area mitigation plans, except mitigation met through mitigation bank or an in-lieu fee program, shall meet the following standards. In addition, for wetlands the standards for wetland compensatory mitigation pursuant to KZC 90.150 shall be followed.

- a. A mitigation plan shall be prepared by a qualified critical area professional, approved by the City that:
  - 1) Addresses the impacts to a critical area and buffer based on best available science;
  - 2) Is designed to maintain and enhance ecological functions and values, and to prevent risk from hazards posed to the critical area; and
  - 3) Provides a description of the mitigation site, including location and vicinity map, and rationale for selection of the mitigation site.
- b. The plan shall show that:
  - 1) The vegetative buffer standards and requirements in KZC 90.130 are met. If the buffer does not currently meet the vegetative buffer standards, a detailed final revegetation plan shall be submitted including specification on size and type of each native species of plants, and number and spacing of the plants meeting the City of Kirkland's Critical Area Plant List and standards;
  - 2) Seed source must be as local as possible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the mitigation plan specifications;
  - 3) Plant materials may be supported with material (e.g., stakes, guy wires) only when necessary. Staking and ties shall follow the International Society of Arboriculture standards. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season;
  - 4) The stream buffer mitigation area replacement at a minimum ratio of 1:1 pursuant to KZC 90.65 is met;
  - 5) Proposed erosion control measures comply with the City's Public Works Pre-Approved Plans;
  - 6) Mitigation is consistent with other requirements in this code, including sight distance requirements at intersection pursuant to Chapter 115 KZC; and
  - 7) All planted areas of the mitigation project have a temporary, above ground sprinkler system set to automatic timers. Temporary sprinkler systems shall be removed in the final year of monitoring once vegetation is well established. When public or private water is not available, a plan for reliable watering by truck or hand shall be included.

(Ord. 4551 § 3, 2017)

### **90.150 Wetland Compensatory Mitigation**

1. General – Compensatory mitigation for modifications to wetlands and related impacts to buffers shall be used for impacts that cannot be avoided or minimized and shall achieve equivalent or greater wetland functions. Approved modifications to a wetland and related impacts to the buffer require compensatory mitigation based on mitigation ratios in subsection (2) of this section so that the goal of no net loss of wetland functions and values is achieved.

#### **2. Compensatory Wetland Mitigation Ratios**

a. Acreage Replacement Ratios – The following ratios shall apply to creation, re-establishment, rehabilitation, and enhancement of wetlands. These ratios do not apply to the use of credits from a state-certified wetland mitigation bank or in-lieu fee program pursuant to KZC 90.145(4). The first ratio number specifies the acreage of replacement wetlands and the second number specifies the acreage of wetlands altered.

**Table 90.150.1 Mitigation Ratios for Wetlands and Buffers**

Category of Wetland Impacted	Creation	Re-establishment – Rehabilitation Only	Creation and Rehabilitation	Creation and Enhancement	Enhancement Only
<b>Category IV</b>	1.5:1	3:1	1:1 C and 1:1 RH	1:1 C and 2:1 E	6:1
<b>Category III</b>	2:1	4:1	1:1 C and 2:1 RH	1:1 C and 4:1 E	8:1
<b>Category II</b>	3:1	6:1	1:1 C and 4:1 RH	1:1 C and 8:1 E	12:1
<b>Category I: Forested</b>	6:1	12:1	1:1 C and 10:1 RH	1:1 C and 20:1 E	24:1
<b>Category I: Based on Total Functions</b>	4:1	8:1	1:1 C and 6:1 RH	1:1 C and 12:1 E	16:1
<b>Category – I: Bog</b>	Not possible	6:1 RH of a bog 8:1	Not possible	Not possible	Case-by-case
<b>Buffer</b> (see additional requirements in subsection (2)(c) and 7 of this section)	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1	Minimum of 1:1

Legend: C = Creation, RH = Rehabilitation, E = Enhancement

- b. Remedial Action – Remedial actions resulting from unauthorized alterations of a wetland or its buffer may require greater ratios depending on the extent of impact to the value and function of the wetland based on an analysis by a critical area professional and a final determination by the Planning Official.
  - c. Buffer Enhancement Ratio – The City may require a buffer enhancement ratio of greater than 1:1 for exceptional second growth forest or mitigation of an already functioning buffer based on the critical area report, buffer modification or consideration of vegetation structure slope and flow paths.
  - d. Credit/Debit Method – As an alternative to the mitigation ratios, the City may allow mitigation based on the “credit/debit” method developed by the Department of Ecology. This method may be appropriate where a wetland is not eliminated, but is otherwise modified.
3. Mitigation for Lost Values and Affected Functions – Compensating for lost values and affected functions must be addressed in the compensatory mitigation plan of subsection (5) of this section to achieve functional equivalency or improvement. The goal and preference shall be for the compensatory mitigation to provide in-kind wetland functions for those lost, except when:
- a. The filled/impacted wetland provides minimal functions as determined by a site-specific function assessment, and the proposed mitigation action(s) will provide equal or greater functions or will provide functions shown to be limited within Kirkland’s watershed; or
  - b. Out-of-kind replacement will best meet formally identified Water Resource Inventory Area (WRIA) 8 Lake Washington/Cedar/Sammamish Watershed goals, such as replacement of historically diminished wetland types.
4. Preference of Compensation
- a. Compensation shall occur in the following order of preference based on in-kind mitigation:
    - 1) Restoring wetlands on upland sites that were formerly wetlands. This action includes reestablishment and rehabilitation;

- 2) Creating/establishing wetlands on disturbed upland sites, such as those with vegetative cover consisting primarily of nonnative species;
  - 3) Enhancing significantly degraded wetlands; or
  - 4) Preserving/maintaining a wetland to remove threat or prevent decline, such as purchasing land. Preservation does not result in gain of wetland acres.
- b. Location of compensatory mitigation shall occur in the order of preference established in KZC 90.145(3).
5. Compensatory Mitigation Plan – A compensatory mitigation plan shall be prepared by a qualified critical area professional approved by the City consistent with state guidelines and submitted with the wetland modification assessment of KZC 90.60 for approval as part of the critical area permit using Process I. The plan shall contain the following:
- a. A topographic survey showing existing and proposed topography and improvements. Surveys should be of sufficient quality to determine accurate one-foot minimum contour intervals;
  - b. Description of the compensatory mitigation site, including location and vicinity map, rationale for selection of site and how it meets the required mitigation ratios of subsection (2) of this section;
  - c. Description of proposed actions for compensation of wetland and buffer areas affected by the project, overall goals and targets of the proposed mitigation plan, and proposed mitigation timing. Documentation if the compensatory mitigation will be done through a mitigation banking or fee-in-lieu program pursuant to KZC 90.145;
  - d. Protective construction measures that are necessary, such as siltation prevention measures and scheduling the construction activity to avoid interference with wildlife nesting activities;
  - e. Description of surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created or restored compensatory mitigation areas;
  - f. Schedule of the project for all work;
  - g. Description of performance standards for post-installation, a monitoring and maintenance schedule based on the time period required in KZC 90.160 along with a financial security estimate for the entire compensatory mitigation project that meet the standards in KZC 90.165;
  - h. Proof of title ownership for the wetlands and buffers, including the compensatory mitigation areas, when mitigation is done by the applicant;
  - i. If the applicant does not hold title ownership to the applicant-responsible mitigation site, proof of perpetual right to locate the mitigation shall be provided; and
  - j. List of all local, state and/or federal wetland-related permits required for the project.
6. Timing of Compensatory Mitigation – See KZC 90.145(5) for when an applicant must install the compensatory mitigation or document if a nonapplicant responsible mitigation program is used to meet the mitigation requirement.

(Ord. 4551 § 3, 2017)

#### **90.155 Measures to Minimize Impacts to Wetlands**

The following measures must be incorporated into the design of a site containing a wetland and/or buffer. The Planning Official shall determine the applicability of each measure based on the uses, improvements and/or activities on the subject property.



Table 90.155.1 Measures to Minimize Impact to Wetlands and Associated Buffers

Disturbance	Required Measures to Minimize Impacts	
<b>Lights</b>	–	Shield exterior lights that face the wetland or buffer so that they are downcast and directed away from critical area and associated buffer pursuant to Chapter 115 KZC.
<b>Noise</b>	–	Activities that generate noise, such as parking lots, drive-thru facilities, generators and HVAC units shall be located away from the wetland or buffer to the maximum extent possible, or noise shall be minimized through use of design measures, insulation techniques and/or additional native vegetation.
	–	Activities or uses that generate relatively continuous, potentially disruptive exterior noise, such as certain industrial, manufacturing and repair services shall provide an additional 10 feet in width of heavily vegetated buffer strip immediately adjacent to the outer wetland buffer that meets KZC 95.42, Buffer Standard 1.
<b>Toxic runoff</b>	–	Treat all runoff from pollution generating surfaces prior to discharge to the wetlands.
	–	Establish covenants for homeowner's associations and commercial developments where applicable for restriction of pesticide use within 150 feet of wetland.
	–	Apply integrated pesticides management pursuant to KZC 90.195.
<b>Storm water runoff</b>	–	As part of redevelopment, replacement or expansion of an existing development, retrofit storm water flow control and treatment for public streets when the value of all improvements, including interior improvements exceed 50% of the assessed value (or replacement value) of the existing site improvements.
	–	Control storm water flow and improve water quality from new and redevelopment, including to wetlands, through the requirements of the Western Washington Phase II Municipal Stormwater Permit, National Pollutant Discharge Elimination System (NPDES), administered by the Washington State Department of Ecology.
	–	Use low impact development techniques per the City's standards.
<b>Pets and human disturbance</b>	–	Install fence and signage pursuant to KZC 90.190 along the edge of the buffer.
	–	Place wetland and buffer in a separate conservation easement or tract pursuant to KZC 90.210.
<b>Dust</b>	–	Use best management practices to control dust.

(Ord. 4551 § 3, 2017)

**90.160 Monitoring and Maintenance**

## 1. Timing

a. After installation and acceptance by the Planning Official of the mitigation or vegetative buffer enhancement, the monitoring and maintenance program shall commence.

b. A monitoring report shall be submitted to the Planning Official after each site visit, pursuant to subsection (3) of this section.

2. Monitoring and Maintenance Program for Buffer – Requirements for a monitoring and maintenance program for revegetation of a buffer shall include the following, unless an alternative program is approved by the City.

a. The goals and objectives of the monitoring and maintenance program;

b. The performance standards by which the mitigation will be assessed. At a minimum, buffer vegetation mitigation shall include the following performance standards:

- 1) Year-1: 100 percent survival of installed vegetation through a combination of survival and replacement;
- 2) Year-2: 80 percent survival of installed vegetation;
- 3) Year-3: At least 50 percent native vegetation coverage within the enhanced and created buffer for installed vegetation;
- 4) Year-5:
  - a) At least 80 percent native vegetation coverage on average throughout the mitigation area. Additionally, two (2) out of three (3) of the following strata of native plant species each must compose at least 20 percent areal cover:
    - (1) Trees;
    - (2) Shrubs; and
    - (3) Woody groundcover (such as kinnikinnick, salal and sword fern);
  - b) At least three (3) native species each making up a minimum of 10 percent coverage;
- 5) All years:
  - a) Less than 10 percent noxious weeds cover using King County weed list, except less than 20 percent cover of reed canarygrass where a pre-existing or proximate monoculture occurred; and
  - b) No presence of knotweed at any time during the duration of the program period.

c. Contingency plan identifying a course of action, corrective measures and a timetable to be taken if monitoring indicates that the performance measures have not been met.

3. Monitoring and Maintenance Program for Critical Area Mitigation or Vegetative Buffer Enhancement – A monitoring and maintenance program shall be established for restoration for a wetland or stream due to prior degradation for an approved modification project as part of the mitigation plan or vegetative buffer enhancement plan. The monitoring and maintenance plan shall address goals and objectives as well as performance standards and a contingency plan.

4. Duration and Schedule of Monitoring and Maintenance Program – Unless otherwise required by the Planning Official, the minimum duration of the program shall be as follows:

a. Three (3) growing seasons for new structures of less than 1,000 square feet of footprint approved pursuant to KZC 90.130 and for additions to nonconformances pursuant to KZC 90.185.

b. Five (5) growing seasons for mitigation projects and revegetating a buffer to meet the buffer standards in KZC 90.130, except for forested and scrub-shrub wetlands.

- c. Ten growing seasons for forested or scrub-shrub wetland creation.
  - d. The required schedule for site visits and reporting for monitoring and maintenance is as follows:
    - 1) For three-year program: two (2) site visits for each of the first two (2) years and one (1) site inspection for the ~~last~~third year;
    - 2) For five-year program: two (2) site visits for each of the first two (2) years and one (1) site inspection every 12 months for subsequent years; and
    - 3) For 10-year program: visits in growing seasons 1, 2, 3, 5, 7 and 10.
  - e. The Planning Official may extend the duration of the program and the number of visits at the end of the established monitoring and maintenance period if the program requirements have not been met.
5. Maintenance Work – Prior to final inspection of the vegetation and any other mitigating measures required in this chapter, the applicant shall submit a signed contract with a landscape maintenance company to maintain the installed improvements over the period of the monitoring program that includes the required maintenance tasks and schedule, except for the following:
- a. For commercial, multifamily or institutional uses, if a property owner has an existing contract with a landscape maintenance company and desires that company to maintain the installed improvements, a copy of the contract with that company shall be submitted. The contract shall clearly indicate the inclusion of the required maintenance tasks and schedule.
  - b. For single-family residential uses, homeowners may maintain the installed improvements if they sign an agreement that runs with the property to maintain the improvements over the period of the monitoring program. The agreement must be recorded with the King County Recorder's Office with the recording fee paid by the homeowner.
 

If the improvements are not satisfactorily maintained based on the monitoring report at the end of any growing season, then the homeowner shall submit a copy of a contract with a landscape maintenance company to have the company maintain the improvements. This option is not available to developers and builders where the property will be sold on completion of the construction.
  - c. A City department may choose to maintain the vegetated buffer and any other improvements and not hire a landscape maintenance company.
6. Options for Monitoring Work – The applicant may choose one of the following methods for who performs the monitoring work:
- a. City Does Work – If the City will oversee the maintenance and monitoring through the City's consultant, the monitoring fee will be based on an actual cost estimate of the work. The applicant shall submit a cash prepayment for all work to the City prior to issuance of the development permit.
  - b. Applicant's Consultant Does Work
    - 1) If the City will not perform the monitoring, the applicant shall submit a signed contract to fund a qualified critical area professional, approved by the City, to monitor the maintenance and perform the monitoring over the life of the program. The cost of the work must be included in the performance security under KZC 90.165; and
    - 2) In addition, the applicant shall submit a cash prepayment prior to final inspection of the development permit for the cost of the City to do peer review of the monitoring reports.
7. Financial Security – A financial security for performance, monitoring and maintenance is required pursuant to KZC 90.165.

**90.165 Financial Security for Performance, Maintenance and Monitoring****1. Performance or Maintenance Security Requirement**

- a. A security is required in the amount and form as the Planning Official deems necessary to assure that all work or actions are satisfactorily completed and maintained in accordance with the approved plans, specifications, and permit or approval requirements.
- b. State agencies and local government bodies, including school districts, shall not be required to provide a performance or maintenance security. The Planning Official may enforce compliance by not approving final inspection, by administrative enforcement action, or by any other legal means.
- c. The security shall be conditioned on the work being completed or maintained in accordance with requirements, approvals, or permits for the site being left or maintained in a safe condition. Also for on the site and adjacent or surrounding areas being restored in the event of damages or other environmental degradation from development or maintenance activities conducted pursuant to the permit or approval.

**2. Submitted Documents****a. The security shall be in the form of a:**

- 1) Surety bond obtained from companies registered as surety in the state or certified as acceptable sureties on federal bonds;
- 2) Assignment of funds or account;
- 3) Escrow agreement;
- 4) Irrevocable letter of credit; or
- 5) Other financial security device.

**b. A completed security information form, security agreement and license to enter property document along with the required recording fee for that document shall be submitted. All forms shall be provided by the City.****3. When Submitted – A financial security for performance, monitoring and maintenance shall be submitted prior to issuance of a land surface modification or building permit for plantings, improvements and other mitigation measures required in this chapter. The performance portion of the security will be released upon City approval of the installed mitigation.****4. Determination of the Security Amount**

- a. Determination of the security amount shall be done using the City's security value worksheet based on the approved plans, specifications, permit or approval requirements, and applicable regulations. Construction, maintenance and monitoring costs shall be based on King County's or the City of Kirkland's Critical Areas Mitigation Bond Quantity Worksheet. The City may request changes in unit pricing if the worksheet is found to be out of date with respect to current market prices;
- b. The financial security shall be equal to or greater than 150 percent of the estimated cost of conformance to plans, specifications and permit or approval requirements of this chapter, including corrective work, compensation, enhancement, mitigation, monitoring, maintenance and restoration of critical areas; and
- c. Actual security costs shall include all labor, materials, erosion control and other general items, and sales tax associated with the required work. The security shall be sufficient to guarantee that all required improvements and measures will be completed in a timely manner and with sufficient funds in accordance with this chapter. The

security shall cover all work or actions not satisfactorily completed or maintained that need to be corrected to comply with the approved plans.

5. Cash Deposit – A cash deposit for the cost of City administration of the security shall be submitted with the financial security.

6. Duration of Performance, Monitoring and Maintenance Security

a. Duration of monitoring and maintenance security shall be consistent with the approved program pursuant to KZC 90.160;

b. The performance or maintenance security may be released upon written notification by the Planning Official, following final site inspection or when the Planning Official is satisfied that the work or activity complies with permits or approved requirement;

c. The Planning Official may require a security longer than stated in KZC 90.160 for complex mitigation projects, such as creation of wetlands, daylighting of a stream or relocating a stream channel, or to extend the length of a security for projects where vegetation or other improvements have been poorly maintained over several years or for code enforcement actions; and

d. No portion of the security may be released early during the established monitoring and maintenance period to ensure that potential catastrophic failure of the plantings and other improvements that may occur in the future are covered.

7. Corrective Measures

a. If, during the term of the performance, maintenance and monitoring security, the Planning Official determines that conditions exist which do not conform with the plans, specification, approval or permit requirements, the Planning Official may issue a stop work order prohibiting any additional work or maintenance until the condition is correct;

b. The Planning Official may call in all or a portion of a performance, maintenance and monitoring security to correct conditions that are not in conformance with plans, specifications, approval or permit requirements; and

c. Where monitoring reveals a failure of mitigation or maintenance measures, the applicant shall be responsible for appropriate corrective action which, when approved by the Planning Official, shall be subject to further monitoring. The Planning Official shall determine the additional monitoring requirements as needed.

8. Transfer of Security – In the event that a performance, monitoring and maintenance security is transferred to a subsequent property owner or management entity:

a. An additional City administrative fee shall be charged for transferring a security to a subsequent owner;

b. The applicant and the subsequent owner must document the transfer authority of the security; and

c. A written agreement from the subsequent owner shall be submitted agreeing to the costs and other responsibilities of the maintenance and monitoring program.

9. Obligation – Any inability of a security device to fund the cost of the security shall not discharge the obligation of an applicant or violator to complete the required mitigation, maintenance or monitoring.

(Ord. 4551 § 3, 2017)

### **90.170 Subdivisions and Maximum Development Potential**

1. Subdivisions – The subdivision and/or short subdivision of land in a wetland, stream or related buffer is subject to the following criteria and subsections (2) through (4) of this section:

- a. Land that is located entirely within a wetland, stream or related buffer may not be subdivided.
- b. Land that is located partially within a wetland, stream or related buffer may be subdivided if, as part of the short plat or subdivision application, the applicant demonstrates that:
  - 1) Each lot contains sufficient developable area to accommodate the allowed use(s) in that zone, including required vehicular access, parking, and storm water management facilities outside of the critical area and its buffer; and
  - 2) Each lot meets all zoning requirements applicable to that zone, except for reduced dimensional design standards for residential uses pursuant to KZC 90.175.
2. Calculating Allowed Number of Dwelling Units – The maximum potential number of dwelling units for a subject property that contains a wetland, stream, minor lake or their buffers is reduced from the maximum potential number of dwelling units that otherwise are allowed in the underlying zone.
3. Maximum Development Potential Calculation
  - a. The maximum potential number of dwelling units shall be the buildable area in square feet divided by the minimum lot area per unit or the maximum units per acre as specified by Chapters 15 through 56 KZC, plus the area of the required critical area buffer in square feet divided by the minimum lot area per unit, the maximum units per acre or as specified by Chapters 15 through 56 KZC, multiplied by the development factor derived from subsection 2 of this section as provided in the formula below:
 
$$\text{MAXIMUM DWELLING UNIT POTENTIAL} = (\text{BUILDABLE AREA} / \text{THE PRESCRIBED MINIMUM LOT AREA PER UNIT OR MAXIMUM UNITS PER ACRE}) + [(\text{BUFFER AREA} / \text{THE PRESCRIBED MINIMUM LOT AREA PER UNIT OR MAXIMUM UNITS PER ACRE}) \times (\text{DEVELOPMENT FACTOR})]$$
  - b. For purposes of this subsection only, “buildable area” means the total area of the subject property minus critical areas and their buffers.
  - c. A professional survey of the approved delineation markings shall determine the area of critical area and buffer on the subject property pursuant to KZC 90.110.
  - d. For multifamily development, and single-family development in RSA zones, if application of the maximum development potential formula results in a fraction, the number of permitted dwelling units shall be rounded up to the next whole number (unit) if the fraction of the whole number is at least 0.50.
  - e. For single-family development in low density zones other than the RSA zones, the number of permitted dwelling units shall be rounded down to the previous whole number (unit) regardless of the fraction of the whole number.
  - f. For developments providing affordable housing units pursuant to Chapter 112 KZC, or cottage, carriage or two/three unit homes pursuant to Chapter 113 KZC, or low impact development pursuant to Chapter 114 KZC, the maximum dwelling unit potential of this section establishes the base density allowed. The additional density or bonus units allowed by those chapters shall be in addition to the maximum dwelling unit potential.
  - g. The provisions in KZC 125.30 for density under a planned unit development shall not be applied to properties containing critical areas or buffers.
  - h. The maximum development potential formula shall not be construed to preclude application of Chapter 22.28 KMC (lot size reduction, low impact development, small lot single-family, and historic preservation) to potentially achieve an increased number of single-family dwelling units for short plats and subdivisions.

i. Lot size and/or density may be limited by or through other provisions of this code or other applicable law, and the application of the provisions of this chapter may result in the necessity for larger lot sizes or lower density due to inadequate buildable area.

4. Development Factor – The development factor, consisting of a “percent credit,” to be used in computing the maximum potential number of dwelling units for a site which contains a critical area buffer is derived from the following table:

**Table 90.170.1 Maximum Development Potential**

Percentage of Site in Critical Area Buffer			Counted at
< 1%	To	10%	100%
> 10%	To	20%	90%
> 20%	To	30%	80%
> 30%	To	40%	70%
> 40%	To	50%	60%
> 50%	To	60%	50%
> 60%	To	70%	40%
> 70%	To	80%	30%
> 80%	To	90%	20%
> 90%	To	100%	10%

(Ord. 4551 § 3, 2017)

#### **90.175 Dimensional Design Standards for Residential Uses**

1. Reduced Dimensional Standards for Residential Uses – The following dimensional requirements may be reduced for the noncritical area portion of the site to accommodate the constraints of the buildable area of the site; provided, that the applicant shall demonstrate that:

- a. The reduction is be the minimum necessary to allow avoidance of the critical area, critical area buffer and structure setback; and
- b. The resulting development is compatible with other development or potential development in the immediate vicinity of the subject property in the same zone and with similar site constraints.

2. Standards – The reduced standards are as follows:

**Table 90.175.1 Reduced Dimensional Standards for Residential Uses**

Reduced Dimensional Standards for Residential Uses	
Minimum Required Yards	<ul style="list-style-type: none"> <li>• 0' for interior side and rear yards within the proposed development to encourage clustering between dwelling units</li> <li>• 10' for front yards</li> <li>• 5' for side and rear yards that abut properties that are not part of the proposed development</li> </ul>



Reduced Dimensional Standards for Residential Uses	
Minimum Parking Pad Dimensions <sup>1</sup>	<ul style="list-style-type: none"> <li>width – 8.5 feet per required stall</li> <li>depth – 18.5 feet per required stall</li> </ul>
Tandem Parking	<ul style="list-style-type: none"> <li>allowed where stalls are shared by the same dwelling unit</li> </ul>

## Notes:

1. Any garage or other structure shall be set back a minimum of 18.5 feet from the property line to allow on-site parking on the driveway without blocking a sidewalk.

(Ord. 4551 § 3, 2017)

**90.180 Reasonable Use Exception**

1. Purpose – The purpose of the reasonable use exception is to:

- a. Provide the City with a mechanism to approve limited use and disturbance of a critical area and critical area buffer when strict application of this chapter would deny all economically viable use of the subject property;
- b. Establish guidelines and standards for the exercise of this authority adjusted to the specific conditions of each subject property; and
- c. Protect public health, welfare and safety of the citizens of Kirkland.

2. Reasonable Use – Reasonable use is a legal concept that has been articulated by federal and state courts in regulatory takings cases. In a takings case, the decision-maker must balance the public benefit against the owner's interests by considering the nature of the harm the regulation is intended to prevent, the availability and effectiveness of alternative measures, and the economic loss borne by the owner. Public benefit factors include the seriousness of the harm to be prevented, the extent to which the land involved contributes to the harm, the degree to which the regulation solves the problem, and the feasibility of less oppressive solutions.

3. Reasonable Use Process – If the strict application of this chapter would preclude all reasonable use of the subject property, an owner of the subject property may apply for a reasonable use exception. The application shall be considered under Process I of Chapter 145 KZC.

4. Submittal Requirements – As part of the reasonable use exception request application the applicant shall submit a critical area report pursuant to KZC 90.110, prepared by a qualified critical area professional approved by the City, and also fund peer review of this report by the City's consultant. The report shall include the following:

- a. For a wetland, the additional report information requirements specified in KZC 90.110(5). For a stream, the additional report information requirements specified in KZC 90.110(6);
- b. An analysis of whether any other reasonable use with less impact on the critical area and critical area buffer is possible;
- c. Site design and construction staging of the proposal shall have the least impact to the critical area and critical area buffer;
- d. A site plan showing:
  - 1) The critical area, critical area buffer and structure setback required by this chapter;
  - 2) The proposed area of disturbance both on and off the subject property pursuant to the disturbance area limitations of subsection (5)(c) of this section;

3) The footprint of all proposed structures and improvements meeting the conditions of subsection (5) of this section, including;

- a) Buildings;
- b) Garages and parking areas;
- c) Driveways;
- d) Paved surfaces, such as walking paths;
- e) Patios, decks and similar structures;
- f) Utility and storm water improvements;
- g) Yard landscaping;
- h) Retaining walls and rockeries;

e. A description of protective measures that will be undertaken, such as siltation curtains, compost berms and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;

f. An analysis of the impact that the proposed development would have on the critical area and the critical area buffer;

g. How the proposal mitigates for impacts to the critical areas and buffers;

h. How the proposal minimizes to the greatest extent possible net loss of critical area functions;

i. Whether the improvement is located away from the critical area and the critical area buffer to the greatest extent possible; and

j. Such other information or studies as the Planning Official may reasonably require.

5. Decisional Criteria – For purposes of this section, “site” means the area of disturbance on the subject property, on abutting lots, and/or within the right-of-way. The City shall approve applications for reasonable use exceptions only if all of the following criteria are met:

a. The following land uses may be proposed with a reasonable use exception:

1) ~~Residential zones~~ ~~one (1)~~ single-family dwelling;

~~2) Commercial or Office~~ Non-Residential zones:

~~a2)~~ An office use, except veterinary offices with outdoor facilities; and

~~b3)~~ A limited retail establishment, excluding restaurants and taverns, gas stations, vehicle or boat sales, service or repair, car washes, drive-thru, outdoor seating area and storage. In order to limit disturbance and impacts to the critical area and buffer these uses shall:

~~(4a)~~ Locate parking on the opposite side of the building from the critical area; and

~~(2b)~~ Limit hours of operation to between 8:00 a.m. and 11:00 p.m.

b. There is no feasible alternative to the proposed activities and uses on the subject property, including reduction in size, density or intensity, phasing of project implementation, change in timing of activities, revision of road and

lot layout, and/or related site planning considerations that would allow a reasonable economic use with less adverse impacts to the critical area and buffer.

c. Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement and all land alteration associated with the proposed development activity, including but not limited to land surface modification, utility installation, decks, driveways, paved areas, and landscaping, shall not exceed the following limits:

- 1) If the subject property contains 6,000 square feet of area or less, no more than 50 percent of the site may be disturbed.
- 2) If the subject property contains more than 6,000 square feet but less than 30,000 square feet, no more than 3,000 square feet may be disturbed.
- 3) For the subject property containing 30,000 square feet or more, the maximum allowable site disturbance shall be between 3,000 square feet and 10 percent of the lot area, to be determined by the City on a case-by-case basis.
- 4) The amount of allowable disturbance shall be that which will have the least impact on the critical area and the critical area buffer given the characteristics and context of the subject property, critical area, and buffer.
- 5) Public improvements within the right-of-way required by Chapter 110 KZC (for example required curb, gutter and sidewalk improvements) are not counted in the maximum allowable area of site disturbance. The City shall allow or require modifications to the public improvement standards that minimize the impact to the critical area and buffer and any impacts associated with required public improvements shall be mitigated by the applicant.
- 6) The portion of a driveway located within an improved right-of-way is not counted in the maximum allowable area of site disturbance. However, a driveway or any other private improvement located in an unimproved right-of-way shall be counted in the maximum allowable area of site disturbance. See subsection (6)(a)(2) of this section for modification to calculating on-site driveways.

The applicant shall pay for a qualified critical area professional, approved by the City, to assist with the City's determination of the appropriate limit for disturbance.

d. The proposal is compatible in design, scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar critical area site constraints.

e. The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques that minimize to the greatest extent possible net loss of critical area functions and values, including pin construction, vegetated roofs, and pervious surfaces.

f. The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the subject property.

g. The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter.

h. The proposed development is on a lot meeting the criteria of KZC 115.80, Legal Building Site.

i. The inability to derive reasonable use is not the result of the applicant's actions or that of previous property owners, such as by altering lot lines pursuant to Chapter 22 KMC that results in an undevelopable condition.

j. The granting of the exception will not confer on the applicant any special privilege that is denied by this chapter to other lands, buildings, or structures under similar circumstances.

6. Modifications and Conditions – The City shall include any conditions and restrictions in the written decision that the City determines are necessary to eliminate or minimize any undesirable effects of approving the proposal. To provide reasonable use of the subject property and reduce the impact on the critical area and critical area buffer, the Planning Director pursuant to a Process I under Chapter 145 KZC is authorized to approve the following modifications:

a. Residential

- 1) Where the applicant demonstrates that the residential development cannot meet the City's code requirements without encroaching into the critical area or critical area buffer:
  - a) The required front yard may be reduced by up to 50 percent; provided, that a minimum of 18.5-foot-long parking pad between the structure and the lot line is provided; and
  - b) The required side and rear yards may be reduced to five (5) feet in width.
- 2) The portion of a driveway exceeding 30 feet in length may be exempt from the calculation of the permitted disturbance area; provided, that the driveway length is the minimum necessary to provide access to the building.
- 3) The structure setback from a critical area buffer pursuant to KZC 90.140 may be reduced to five (5) feet in width; provided, that those improvements allowed in this area are limited to:
  - a) Chimneys, bay windows, greenhouse windows, eaves, cornices, awnings and canopies, and decks above the ground floor extending no more than 18 inches into the structure setback;
  - b) Benches, walkways, paths and pedestrian bridges extending no more than four (4) feet into the structure setback;
  - c) Garden sculpture, light fixtures, trellises and similar decorative structures extending no more than four (4) feet in width into structure setback; and
  - d) Nonnative and native landscaping.
- 4) The garage width requirements of KZC 115.43 for detached dwelling units in low-density zones may be waived.
- 5) The maximum height of structures may be increased up to five (5) feet if needed to reduce the slope of a driveway to a structure based on existing grade. The applicant must demonstrate that the additional height is needed to reduce the steepness of the slope and no other option is available.

b. ~~Commercial-Non-Residential~~ – Where the applicant demonstrates that the ~~commercial-non-residential~~ development cannot meet the City's code requirements without encroaching into the critical area or critical area buffer:

- 1) The required front yard may be reduced by up to 50 percent.
- 2) The structure setback from a critical area buffer may be reduced by five (5) feet in width; provided, that those improvements allowed in this area are limited to:
  - a) Chimneys, bay windows, eaves, cornices, awnings and canopies;
  - b) Benches, walkways, paths and pedestrian bridges extending no more than four (4) feet into the structure setback;
  - c) Light fixtures, trellises and similar decorative structures extending no more than four (4) feet into the structure setback; and

- d) Nonnative and native landscaping.
  - 3) The maximum height of structures may be increased up to five (5) feet if needed to reduce the slope of a driveway to a structure based on existing grade. The applicant must demonstrate that the additional height is needed to reduce the steepness of the slope and no other option is available.
  - 4) The portion of a driveway exceeding 30 feet in length may be exempt from the calculation of the permitted site disturbance area; provided, that the driveway length is the minimum necessary to provide access to the building.
7. Lapse of Approval
- a. The reasonable use exception approval expires and is void if the applicant fails to file a complete building permit application within five (5) years of the final decision granting or approving the exception. However, in the event judicial review is initiated per KZC 145.110, the running of the five (5) years is tolled for any period of time during which a court order in said judicial review proceeding prohibits the required development activity, use of land, or other actions. “Final decision” means the final decision of the Planning Director; and
  - b. The applicant must substantially complete construction for the development activity, use of land, or other actions approved under this chapter and complete the applicable conditions listed on the notice of decision within seven (7) years after the final approval on the matter, or the decision becomes void.
8. Complete Compliance Required
- a. General – Except as specified in subsection (8)(b) of this section, the applicant must comply with all aspects, including conditions and restrictions, of an approval granted under this chapter in order to construct the improvements authorized by the approval.
  - b. Exception: Subsequent Modification – The Planning Official may approve a subsequent modification to a specific use and site plan that has been approved through the reasonable use exception, provided the change meets the standards of this chapter. Otherwise, the applicant is required to apply for and obtain approval through a Process I pursuant to Chapter 145 KZC for a new reasonable use exception.

(Ord. 4551 § 3, 2017)

### 90.185 Nonconformances

- 1. General Provisions for Nonconforming Structures and Improvements in Critical Areas or Buffer – The following general provisions apply to properties that contain nonconformances due to the existence of buffers and/or critical areas, until such times as redevelopment of the property is proposed that meets the threshold in KZC 90.130:
  - a. Legally established structures and improvements may remain and be repaired and maintained. See KZC 90.35 and subsection (3) of this section;
  - b. New structures or improvements may not be added or expanded in the buffer and/or critical area, including those listed in KZC 90.140;
  - c. Legally established lawns may be mowed and maintained, but not expanded in the buffer and/or critical area; and
  - d. Nonnative vegetation may be maintained, but not expanded in the buffer and/or critical area.
- 2. General Standards for Subsections (3) through (6) of This Section
  - a. Except for above ground floor expansions, T tThe provisions of subsections (4) through (6) of this section may each be used one (1) time for the subject property and may be used in combination. Any building permit application utilizing these provisions shall clearly document the proposed location and size relative to the specific provision(s)

being utilized. Above ground floor expansions, pursuant to subsection (4.a), may be utilized an unlimited number of times.;

- b. Any structures or improvements that are nonconforming because of the regulations in this chapter shall be regulated pursuant to the following provisions rather than the provisions of Chapter 162 KZC. However, nonconforming multifamily structures for density pursuant to KZC 162.35(12) and continued uses pursuant to KZC 162.55 shall be regulated under Chapter 162 KZC and shall not be eligible to use the provision in this section;
- c. No disturbance to the critical area is permitted. Any disturbance to the critical area buffer as a result of development activity shall be the minimum necessary and all disturbed areas shall be restored to pre-existing condition;
- d. Any existing native vegetation removed in the buffer as part of the disturbance shall be replaced with native vegetation at a 1:1 ratio;
- e. The limits of disturbance and a replanting plan for disturbed areas, if applicable, shall be submitted as part of the building permit application;
- f. Temporary construction fencing is required pursuant to KZC 90.190. The Planning Official shall determine the appropriate location of the fencing depending on the location of existing improvements in relationship to the critical area buffer;
- g. Lawn and nonnative landscaped areas shall not be expanded in the buffer area; and
- h. All costs for review by a qualified critical area professional and the City's review, mitigation and restoration shall be at the expense of the applicant.

### 3. Maintenance and Repair of Nonconforming Structure

- a. A legal nonconforming structure may be maintained and repaired as an exemption pursuant to KZC 90.35; provided, that the work does not increase the previously approved structure footprint or impervious area.
- b. Multifamily structures in multifamily zones that are nonconforming for density may not increase the density as part of the work on the structure. See KZC 162.35(12).

### 4. Reconstruction of Existing Nonconforming Structures

#### a. General Standards

- 1) If there is no increase in the size of the structure footprint or impervious area and the reconstructed structure is no closer to the critical area, then the requirements of KZC 90.105 and 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.190 for critical area fencing and signage and KZC 90.210 for dedication of critical area and buffer are not required.
- 2) Existing buffer fencing, native buffer vegetation and dedication of the critical area must be retained.

#### b. Detached Dwelling Units

- 1) An existing legally nonconforming building or detached garage may be reconstructed as repair, replacement or due to casualty damage such as a fire; provided, that:
  - a) There is no expansion of the existing size of the footprint, including decks or patios or other improvements;
  - b) There is no increase in impervious surface;

- c) There is no expansion of existing exterior walls, including adding exterior walls below a cantilevered structure; except for new additional upper floors in subsection (4)(b)(4) of this section;
    - d) There is no increase in the nonconformity in any way; and
    - e) Reconstruction is built on the existing foundation, except as provided in subsection (4)(b)(2) of this section;
  - 2) With the exception of a casualty damage, if a new foundation is to be built, the new foundation must be relocated outside of the critical area, its buffer and the structure setback to the greatest extent possible given other required yards, configuration of the subject property and existing improvements;
  - 3) For casualty damage, a structure may be reconstructed on the existing foundation, or a new foundation may be built in the same location or away from the critical area, but not closer to the critical area; and
  - 4) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure.
- c. All Other Uses
- 1) An existing legally nonconforming structure may be reconstructed as repair, reconstruction or due to a casualty damage such as a fire; provided, that there is no expansion of the existing footprint or increase of impervious area, including decks, patios or other improvements, no expansion of exterior walls, including adding exterior walls below a cantilevered structure, no increase in the nonconformity in any way, and reconstruction is built on the existing foundation;
  - 2) Additional upper floors may be added above the ground floor if they do not encroach into the critical area, its buffer or the structure setback any further than the exterior walls of the existing nonconforming structure; and
  - 3) If the cost of the reconstruction as a repair, replacement or due to a casualty damage, or for any upper floor additions exceeds 50 percent of the assessed or appraised value of that primary structure and all improvements attached to the primary structure~~improvement~~, whichever is greater, the structure and improvements shall be brought into conformance.
- d. In case of casualty damage, the following is required:
- 1) A complete building permit application to rebuild a nonconforming structure must be submitted within two (2) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and
  - 2) Rebuilding of the nonconforming structure shall be substantially complete within four (4) years of the date of the damage or the nonconformance shall be considered to be terminated and shall not be replaced in its prior nonconforming location; and
  - 3) Documentation showing the date of the damage, the location and dimensions of the damaged structure and cause of the damage shall be submitted to the Planning Official for review and confirmation.
5. Expansion of Nonconforming Structure that Does Not Increase the Degree of Nonconformance – An existing, legally established nonconforming building structure may be expanded outside of a critical area, buffer or the building setback under the following standards and limitations:
- a. Except as disallowed under subsection (3)(b) of this section for multifamily structures that are nonconforming for density, an expansion of a nonconforming structure that increases the footprint, impervious area or size of the



structure, including new upper floors, is permitted if the expansion or any other change to the structure is outside of the critical area, critical area buffer, and structure setback.

b. If the size of the new net impervious surface or cost of new or replacement improvements meets KZC 90.130(3)(a), the requirements of KZC 90.105 and 90.110 for a critical area determination and report, KZC 90.130 for vegetative buffer, KZC 90.160 and 90.165 for monitoring and maintenance and financial security, KZC 90.210 for dedication of critical area and buffer and subsection (6)(a)(11) of this section for fencing and signage shall be met.

c. If the size of new net impervious area meets KZC 90.130(3)(b), the requirements of subsections (6)(a)(7) through (12) of this section shall be met.

6. Expansion of Nonconforming Building Structure that Increases the Nonconformance – An existing, legally established nonconforming building structure may be expanded into a critical area buffer or the building setback under the following standards and limitations:

a. General Standards for Any Expansion

- 1) The eExpansion- provisions of KZC 90.185.6.b, c, d, and e are only permitted for those buildings-structures that have not received City approval for a critical area or buffer modification allowed under this or a previous code or not received approval for a reasonable use exception pursuant to KZC 90.180;
- 2) A one (1) time expansion of each option found in subsections (6)(b) through (e) of this section is permitted on a subject property. No more than one expansion is permitted for each option. See vegetative buffer standards in KZC 90.130;
- 3) No expansion is permitted in a critical area buffer that is a fish and wildlife conservation area without an approved management plan pursuant to KZC 90.95;
- 4) The following nonconforming improvements are allowed without going through review under subsections (6)(b) through (e) of this section if a new or replacement foundation is not required:
  - a) Upper floor additions are allowed above the ground floor of an existing nonconforming building if they do not encroach closer to the critical area buffer or structure setback from the buffer beyond the existing exterior walls;
  - b) Existing carports and decks with roofs may be enclosed if the new exterior walls do not extend beyond the existing foundation or corner supports of the structure; and
  - c) An interior open courtyard of an existing building may be enclosed if the courtyard is covered entirely with impervious material. See subsection (6)(d) of this section if the material is not entirely impervious;
- 5) Covering an existing deck with a roof or an existing pathway with a breezeway or similar improvements may be proposed using subsections (6)(b) through (e) of this section;
- 6) Any commercial parking required for additions shall not be located in the critical area buffer;
- 7) A critical area determination, report and a survey pursuant to KZC 90.105 and 90.110 are required if the wetland has not been rated and delineated pursuant to KZC 90.55 within the past five (5) years or the stream has not been classified or delineated pursuant to KZC 90.65;
- 8) Compensatory mitigation through buffer restoration shall be provided as follows:
  - a) A native vegetative buffer at a minimum ratio of 1:1 (new footprint area is equal to or less than vegetative buffer area) shall be provided;

- b) If the new or expanded building footprint results in removal of a significant tree in a buffer, the tree shall be replaced with two (2) native trees in the buffer. The replacement tree shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broadleaf. For a removed significant tree in a buffer that is 24 inches in diameter, the tree shall be replaced with three (3) native trees;
    - c) The vegetative buffer shall be located along the edge of the critical area or as close to the critical area as possible if the critical area is located off-site;
    - d) The vegetative buffer shall be 10 feet in depth and located across from the building expansion area;
    - e) The buffer vegetative standards pursuant to KZC 90.130 shall be used as a guideline for the mitigation area; and
    - f) The mitigation is in addition to revegetation of any disturbed area;
  - 9) A mitigation planting plan, prepared by a qualified critical area professional approved by the City, shall be submitted for approval as part of the building permit. Prior to final inspection, replanting of any disturbed area and the mitigation planting shall be installed by the applicant and inspected by the City;
  - 10) A performance and three-year maintenance and monitoring security shall be submitted with the building permit pursuant to KZC 90.165 for the mitigation plan;
  - 11) Permanent critical area fencing and signage is required. Prior to issuance of a building permit, the Planning Official shall determine the location of the required critical area fencing and signage to be installed pursuant to KZC 90.190.
    - a) The fencing shall be located at the edge of the buffer. However, if all or portions of the buffer is covered by legally established lawn, nonnative vegetation and/or improvements, then the fencing shall be located at the boundary of that maintained area;
    - b) If the critical area is off site and that maintained area extends to the property line, then the fencing shall be located at the property line; and
    - c) Existing buffer fencing may need to be relocated to meet this provision;
  - 12) A critical area covenant on a form approved by the City shall be recorded along with an as-built site plan showing the location of the approved expansion and mitigation vegetation in the buffer to protect the vegetated portion of the buffer in perpetuity. A critical area dedication pursuant to KZC 90.210 is not required for the vegetated portion of the buffer.
- b. Expansion into Critical Area Buffer on Side of the Building Opposite of Critical Area
- 1) The footprint of an existing building may be expanded into the critical area buffer on the side of the building opposite of the critical area buffer up to a maximum of 1,000 square feet. The existing building must be between the addition and the critical area (see Chapter 180 KZC, Plate 26);
  - 2) Only a one (1) time expansion of this option is permitted for the subject property. See subsection (6)(a)(2) of this section; and
  - 3) See general standards in subsection (6)(a) of this section for an expansion.
- c. Expansion into Structure Setback from the Buffer
- 1) The footprint of an existing building may be expanded into the structure setback up to a maximum of 500 square feet;

- 2) If an addition is located at the edge of the buffer, the portion of the buffer next to the side of the addition abutting the buffer is considered a structure setback from the buffer. Only necessary maintenance and repair of the addition are permitted in this portion of the structure setback. No improvements pursuant to KZC 90.140 are permitted in this portion of the structure setback;
  - 3) Only a one (1) time expansion of this option is permitted for the subject property. See subsections (6)(a)(2) of this section; and
  - 4) See general standards in subsection (6)(a) of this section for a building expansion.
- d. Expansion into Critical Area Buffer but No Closer than the Existing Building
- 1) The footprint of an existing building may be expanded into the critical area buffer, but no closer than the edge of the existing building nearest to the critical area, up to a maximum of 500 square feet (see Chapter 180 KZC, Plate 26);
  - 2) An interior open courtyard of an existing building may be enclosed up to 500 square feet if the courtyard is covered partially or entirely with pervious material. This improvement can be done in conjunction with subsection (6)(d)(1) of this section if the total new impervious area of the expanded building does not exceed 500 square feet;
  - 3) The minimum buffer width for the addition shall be 60 percent of the required buffer width standard pursuant to KZC 90.55 for wetlands and KZC 90.65 for streams;
  - 4) Only a one (1) time expansion of this option is permitted for the subject property. See subsections (6)(a)(2) of this section; and
  - 5) See general standards in subsection (6)(a) of this section for a building expansion.
- e. Expansion into Critical Area Buffer between the Building and the Critical Area
- 1) The footprint of a building may be expanded into the critical area buffer between the building and the critical area up to a maximum of 250 square feet (see Chapter 180 KZC, Plate 26);
  - 2) The new footprint must be attached to the original building and not to any subsequent footprint addition under subsection (6) of this section;
  - 3) The minimum buffer width for the addition shall be 60 percent of the required buffer width standard pursuant to KZC 90.55 for wetlands and KZC 90.65 for streams;
  - 4) Only a one (1) time expansion of this option is permitted for the subject property. See subsection (6)(a)(2) of this section; and
  - 5) See general standards in subsection (6)(a) of this section for a building expansion.

(Ord. 4551 § 3, 2017)

#### **90.190 Critical Area Markers, Fencing and Signage**

1. Survey Stakes – Permanent survey stakes delineating the boundary of the critical area buffer shall be set, using iron or concrete markers as established by current survey standards. For public projects, alternative survey stakes may be approved by the Planning Official, such as flexible delineator posts.
2. Construction Fencing
  - a. Prior to commencement of any grading or other development activities on the subject property, a six-foot-high construction chain link fence with silt fencing must be installed along the entire edge of the buffer;

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FREQUENTLY FLOODED AREAS

b. The fence may not be located in the critical area or its buffer, except see nonconformance section pursuant to KZC 90.185(2);

c. The Planning Official shall inspect the fence prior to commencement of any work;

d. The fence must remain in place until completion of the project and not be removed at any time other than as authorized by the Planning Official;

e. The location of construction fencing for nonconformances shall be on a case-by-case basis as determined by the Planning Official; and

f. The location of construction fencing for public agency and utilities activities, improvements or uses shall be determined on a case-by-case basis by the Planning Official.

3. Permanent Fencing

a. Except as specified in subsections (3)(b) through (d) of this section, upon completion of the project:

1) A permanent split rail, open slatted with at least 18 inches between each slat, wrought iron, chain link, or similar nonsolid fence between three (3) and six (6) feet in height must be installed along the entire edge of the buffer;

2) Solid fencing is not permitted;

3) Except for split rail, a gate is required for pedestrian access to the buffer;

4) The fence may not be located in the critical area buffer, except for properties containing nonconformances pursuant to KZC 90.185(6)(a)(11);

5) The Planning Official shall inspect the fence prior to final inspection; and

6) The fence must be maintained and remain in perpetuity.

b. Except for utility substations, permanent fencing is not required for public or private utility activities or uses occurring in utility corridors, public rights-of-way, the Cross Kirkland Corridor or the Eastside Rail Corridor.

c. The location of permanent fencing for public agency activities, improvements or uses shall be determined on a case-by-case basis by the Planning Official.

d. The location of fencing for nonconformances shall be determined on a case-by-case basis by the Planning Official. See KZC 90.185.

4. Permanent Signage

a. Upon completion of the project, permanent signage shall be attached to the fence stating that the protected critical area and buffer must not be disturbed other than necessary for maintenance of vegetation;

b. The signs must be maintained and remain in perpetuity;

c. Signage shall meet the administrative standards of the Planning and Building Department for design, number and location;

d. The location of signage for public agency activities or uses shall be determined by the Planning Official on a case-by-case basis;

e. Signage for nonconformances shall be determined on a case-by-case basis by the Planning Official. See KZC 90.185; and

- f. The Planning Official shall inspect the signage prior to final inspection.

(Ord. 4551 § 3, 2017)

### 90.195 Pesticide and Herbicide Use

Application of pesticides, herbicides, or fertilizers and irrigation practices for residential, commercial and institutional uses shall follow ~~the best management practices (BMP) for landseaping activities and vegetation management in the King County Stormwater Pollution Prevention Manual, as amended~~ the application of pesticides, herbicides, and fertilizers. These practices include:

1. Never apply pesticides and fertilizers if it is raining or about to rain;
- ~~2. Do not apply pesticides within 100 feet of surface waters, such as lakes, ponds, wetlands, streams and storm-water conveyance ditches unless approved and permitted by the Washington State Department of Ecology;~~
3. Determine the proper fertilizer application for the types of soil and vegetation involved. Follow manufacturers' recommendations and label directions;
4. Clean up after spills immediately;
5. Use mulch or other erosion control measures when soils are exposed for more than one (1) week during the dry season or two (2) days during the rainy season;
6. Ensure sprinkler systems do not spray beyond vegetated areas resulting in the excess water discharging into the storm drain system; and
7. Use of hazardous substances, pesticides and fertilizers in a critical area containing a fish and wildlife habitat conservation area must follow state and City standards.

(Ord. 4551 § 3, 2017)

### 90.200 Critical Area Buffer and Structure Setback from Buffer Under Prior Approvals

1. If the City approved a development permit through Process I, II, IIA, IIB, or a Planning Official decision (excluding critical area determinations and delineations), and/or a subdivision or short subdivision, and that development permit or subdivision or short subdivision approval established critical area buffers and/or structure setbacks on the subject property allowed under the KZC at the time of approval, then those structure setbacks and/or buffers shall apply; provided, that:
  - a. The development permit or subdivision or short subdivision approval is valid; and
  - b. The development permit or subdivision or short subdivision has not lapsed pursuant to the applicable lapse of approval standards.

All further development activity and construction on the subject property shall comply with the provisions of this chapter.

2. All provisions of this chapter that do not conflict with the structure setback and/or buffer requirements set forth in subsection (1) of this section shall fully apply to the subject property.

(Ord. 4551 § 3, 2017)

### 90.205 Code Enforcement

Violations shall be subject to the City's code enforcement procedures and penalties under Chapter 1.12 KMC. In addition to any enforcement action or determinations pursuant to Chapter 1.12 KMC, enforcement for critical area violations shall meet the following requirements:

1. Unauthorized development activity, use, land surface modification or other disturbances to a critical area or buffer shall cease immediately. All disturbances shall be rectified and restored consistent with an approved correction plan;
2. A correction plan, prepared by a qualified critical area professional approved by the City, must be submitted to the City within 30 calendar days of the enforcement notice from the City in conformance with this chapter unless otherwise approved by the City;
3. The correction plan shall include:
  - a. Site plan drawn to scale;
  - b. Location of the sensitive area and buffer;
  - c. Affected area;
  - d. A restoration plan that includes a planting plan that meets the requirements for a vegetative buffer in KZC 90.130 if the disturbance occurred in the buffer. If the disturbance occurred in a stream or wetland, the restoration plan must propose appropriate restoration based on the type of wetland or stream;
  - e. The Planning Official may require a critical area report pursuant to KZC 90.110, funded by the property owner, or at a minimum a wetland delineation of the disturbed wetland, classification of a stream if it cannot be determined by the City, boundary of the critical area buffer and a survey depending on the extent and nature of the disturbance; and
  - f. The critical area report shall make recommendations on a correction plan. The City may require the applicant to fund City peer review of the correction plan depending on the nature and extent of disturbance.
4. The Planning Official shall review and approve the correction plan based on the regulations in this chapter and inspect the restoration after installation. The City may require the applicant to fund City peer review to inspect the restoration plan depending on the nature and extent of disturbance;
5. The applicant shall pay the City's cost for the enforcement, including review of the plan and doing the inspection;
6. The City may require a monitoring and maintenance plan for approval by the Planning Official pursuant to KZC 90.160 depending on the nature and extent of the disturbance;
7. The City may require a performance and maintenance/monitoring financial security for restoration depending on the nature and scope of the disturbance. If a security is required, the security shall be on a form and in an amount determined by the Planning Official. See KZC 90.165;
8. The correction work shall be completed within 60 calendar days from the date of the enforcement notice, unless otherwise specifically approved by the Planning Official;
9. The requirements for a critical area dedication must be met pursuant to KZC 90.210; and
10. For repeat violators, the City is authorized to require monitoring and maintenance to extend beyond requirements of KZC 90.160 and funded by the violator.

(Ord. 4551 § 3, 2017)

#### **90.210 Dedication and Maintenance of Critical Area and Buffer**

1. Dedication
  - a. Consistent with law, the applicant shall dedicate development rights, air space, or grant a greenbelt protection or open space easement to the City to protect sensitive areas and their buffers;

- b. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official;
  - c. The applicant shall record the dedication with the King County Recorder's Office as part of a subdivision recording or prior to issuance of a final inspection for all other developments;
  - d. The applicant shall provide proof of title ownership for the wetlands and buffers, including any compensatory mitigation areas; and
  - e. If the applicant does not hold title ownership to the mitigation site, proof of perpetual right to locate the mitigation on the subject property shall be provided.
2. Critical Area Boundaries Subject to Change – Critical area categories, ratings, classifications and boundaries are subject to change due to amendments to this chapter and/or physical changes to the subject property or vicinity. Subsequent development on a subject property may require a change in the boundary of critical area tract or easement.
3. Removal or Modification of Dedication
- a. The Planning Director may authorize removal or modification to a recorded critical area dedication; provided, that removal or modification does not conflict with any requirement of this chapter or prior approval;
  - b. The applicant shall submit a request in writing along with documentation as to why the dedication should be removed or modified and how the change is consistent with this chapter, along with any required review fee; and
  - c. If the removal or modification is approved, the applicant shall record a document with King County Recorder's Office revising the dedication.
4. Maintenance of Critical Area and Buffer – In critical areas and their buffers, native vegetation shall not be removed without prior City approval. It is the responsibility of the property owner to maintain critical areas and their buffers by removing nonnative, invasive, and noxious plants in a manner that will not harm critical areas or their buffers.

(Ord. 4551 § 3, 2017)

#### **90.215 Liability**

Prior to issuance of a land surface modification permit or a building permit, whichever is issued first, the applicant shall enter into an agreement with the City that runs with the property, in a form acceptable to the City Attorney, indemnifying the City from any claims, actions, liability and damages to critical areas arising out of development activity on the subject property. The applicant shall record the agreement with the King County Recorder's Office.

(Ord. 4551 § 3, 2017)

#### **90.220 Appeals**

Any decision made by the Planning Official or Planning Director pursuant to this chapter may be appealed using, except as stated below, the applicable appeal provisions of Chapter 145 KZC. If a proposed development activity requires approval through Process IIA or IIB (as described in Chapters 150 and 152 KZC, respectively), any appeal of a classification, determination, or decision shall be heard as part of that other process.

(Ord. 4551 § 3, 2017)

#### **90.225 Lapse of Approval**

Any decision made by the Planning Official and Planning Director authorized by this chapter shall be subject to the lapse of approval provisions of KZC 145.115.

(Ord. 4551 § 3, 2017)



## Plate 47: Establishing average pier length/navigation line

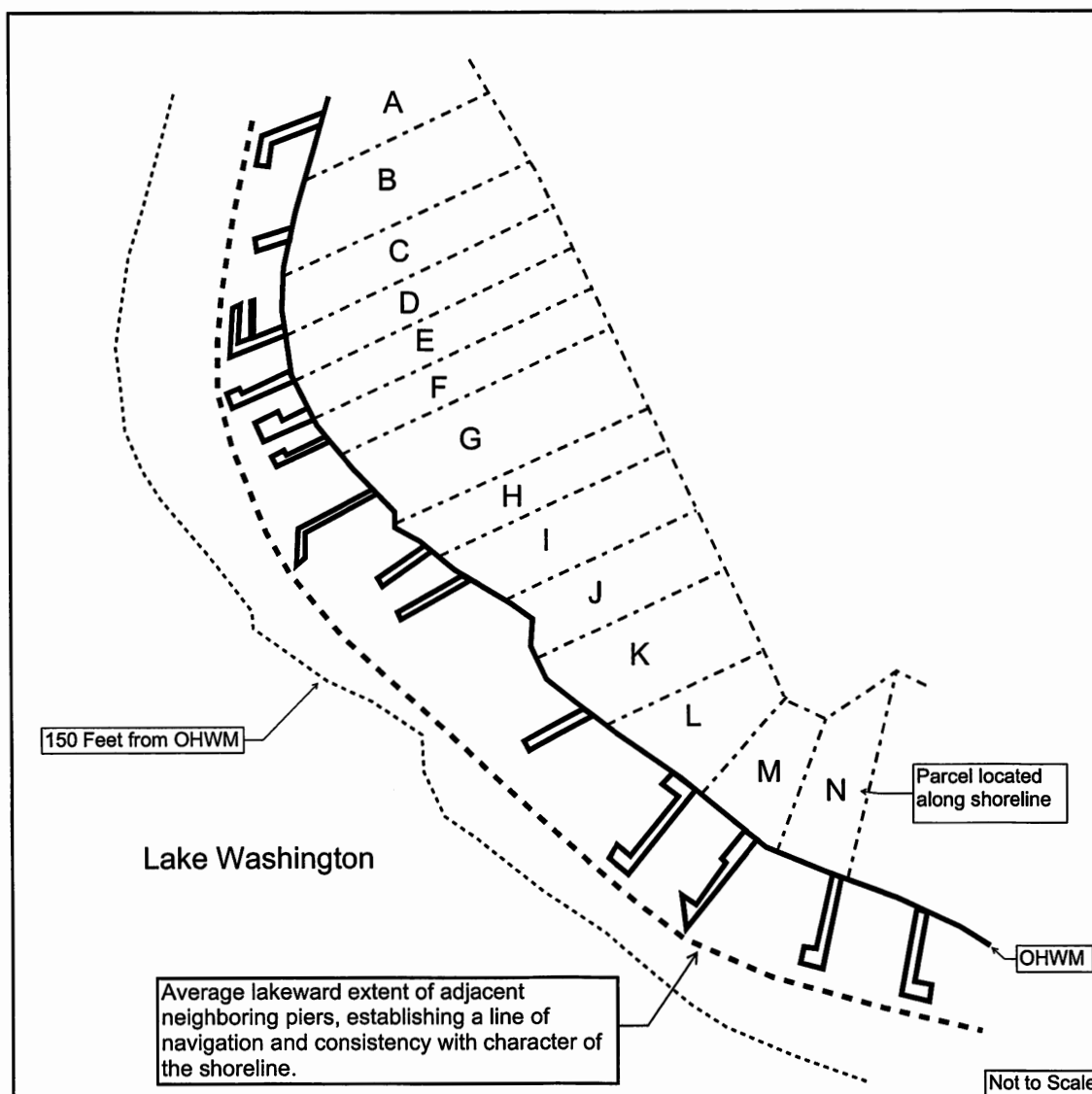
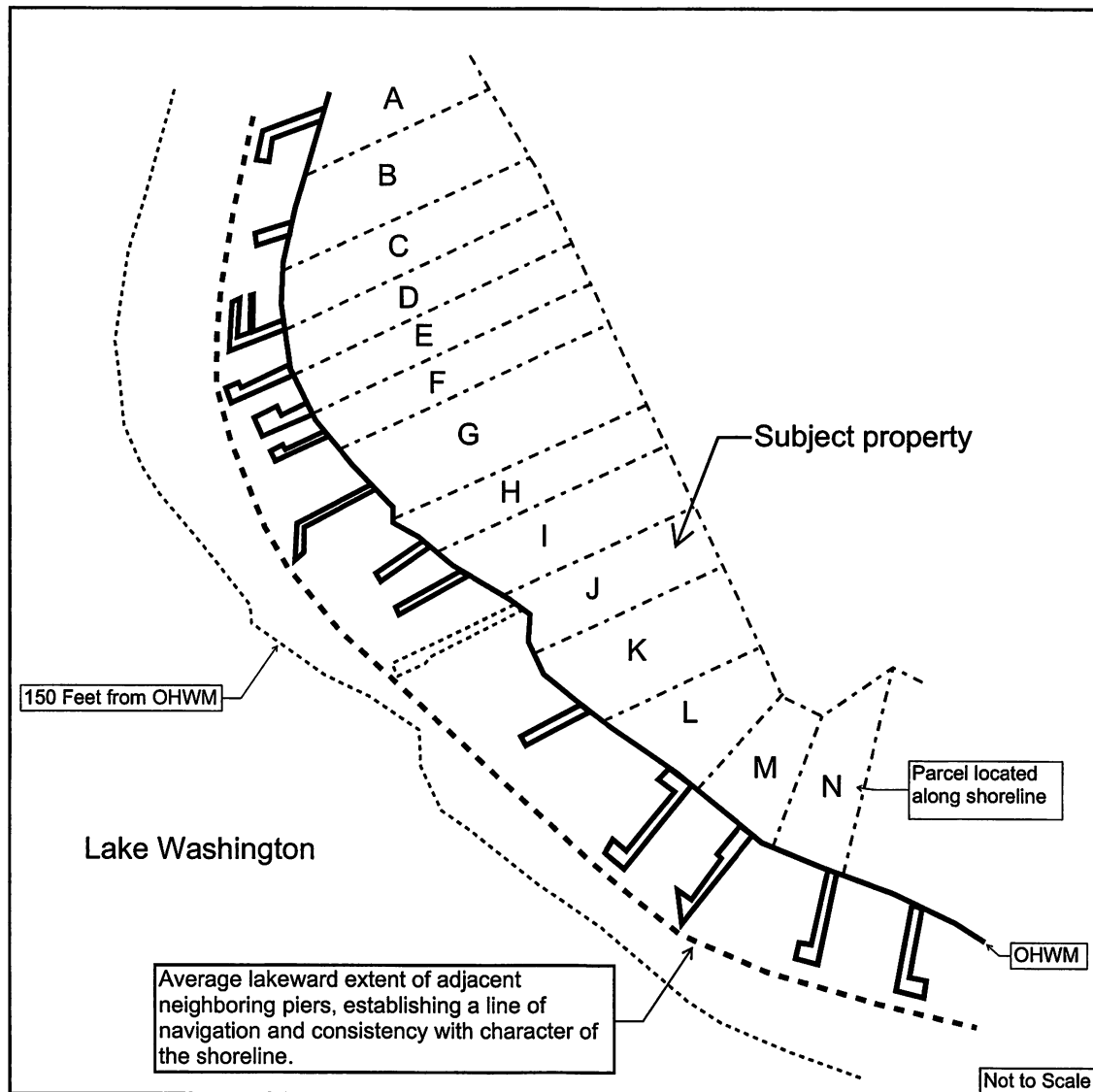


Plate 47 is intended to clarify how the average pier length of an adjacent shoreline parcel influences the length of a proposed pier. The plate illustrates the location of several single-family piers located along the shoreline of Lake Washington. The image identifies the maximum length of 150 feet allowed under KZC 83.270.4, and the average lakeward extent of the piers along this section of the shoreline. The established line of navigation runs along the waterward side of the piers. By determining the average length of the neighboring piers, a property can identify the length of a pier that may be proposed that will be consistent with the length standards of 83.270 and Shoreline Area Policy SA-11.1 in the Comprehensive Plan.

## Plate 48A - How to determine the allowable length of a single-family pier (83.270.4).



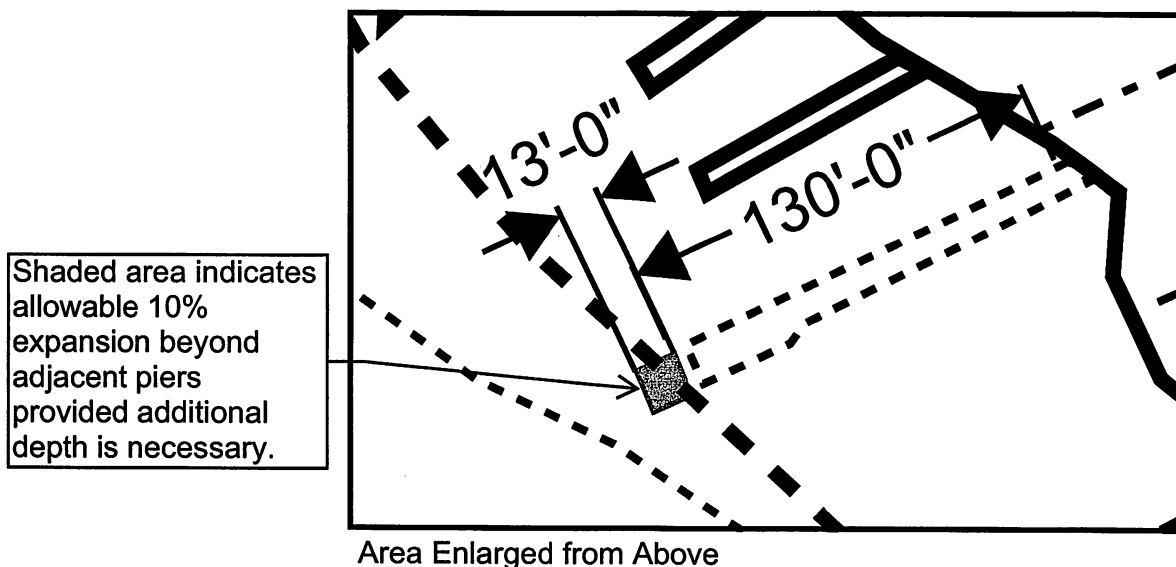
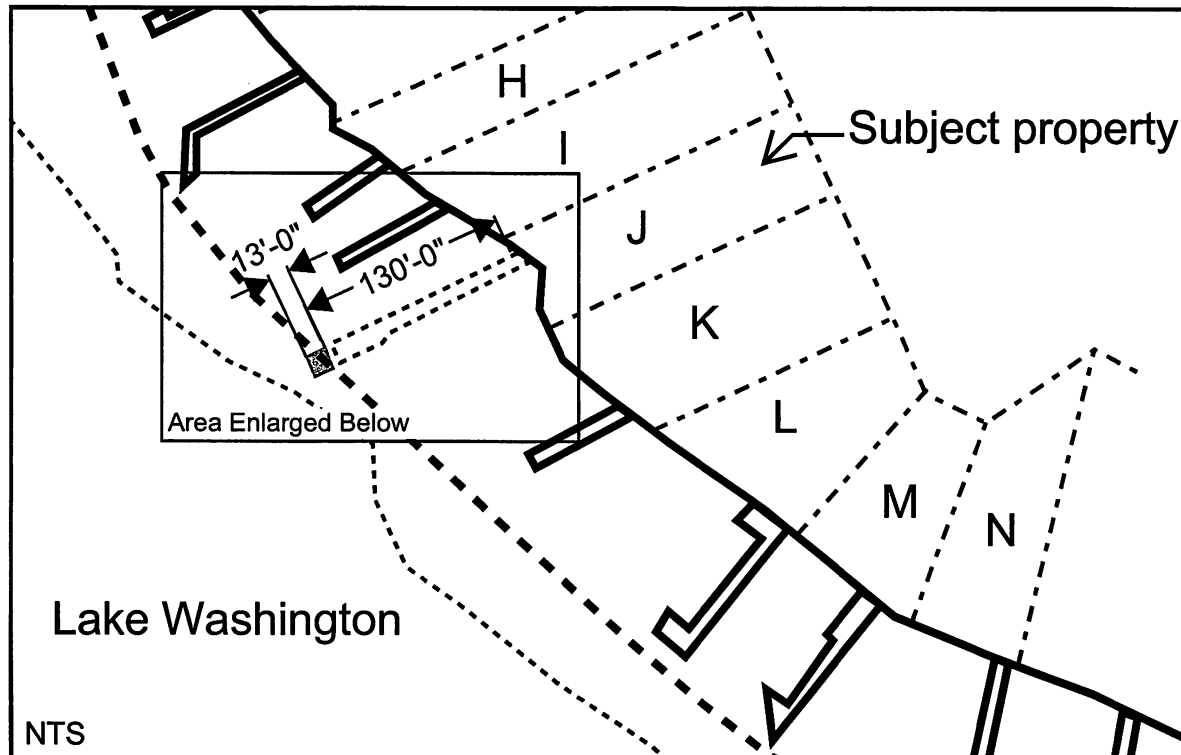
Parcel 'J' needs to establish the allowable length a pier may extend under the development regulations of section 83.270. Since the 150 foot measurement from the OHWM exceeds the average lakeward extent of the adjacent neighboring piers, the lesser applies. Parcel 'J' may propose a pier length as shown, aligning with the average lakeward extent of the adjacent neighboring piers. The pier is subject to all other dimensional standards, including but not limited to width, area, and height.

A proposal beyond the average lakeward extent line would require the applicant identify the length will not have an adverse impact on navigation and the length is necessary due to inadequate water depth.

A proposed pier beyond the 150 foot measurement would be subject to a Shoreline Variance.

## Plate 48B - How to determine the maximum length a pier may extend beyond existing adjacent piers (KZC 83.270.4).

An additional 10% of length on the subject property may be added based on the average lakeward extent of the existing adjacent neighboring piers. In this example, the average lakeward extent establishes an allowable length of 130 feet for the subject property. The parcel may propose up to 13.0 feet of additional length if necessary to achieve water depth.



## ORDINANCE O-4700

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO COMPREHENSIVE PLANNING AND LAND USE AND AMENDING THE COMPREHENSIVE PLAN ORDINANCE 3481, AS AMENDED, TO UPDATE CHAPTER XVI SHORELINE AREA AND APPROVING A SUMMARY FOR PUBLICATION, FILE NO. CAM19-00026.

1 WHEREAS, the City Council has received a recommendation from  
2 the Kirkland Planning Commission and the Houghton Community Council  
3 to amend certain portions of the Comprehensive Plan for the City,  
4 Ordinance 3481, as amended, to ensure the Shoreline Area Element of  
5 the Comprehensive Plan complies with the Growth Management Act, as  
6 set forth in the report(s) and recommendation(s) of the Planning  
7 Commission and the Houghton Community Council dated July 25, 2019,  
8 and bearing Kirkland Planning and Building Department File No. CAM19-  
9 00026; and

10  
11 WHEREAS, prior to making the recommendation the Planning  
12 Commission and Houghton Community Council, following notice as  
13 required by RCW 35A.63.070, held on July 25, 2019, a joint public  
14 hearing, on the amendment proposals and considered the comments  
15 received at the hearing; and

16  
17 WHEREAS, pursuant to the State Environmental Policy Act  
18 (SEPA), there has accompanied the legislative proposal and  
19 recommendation through the entire consideration process, a SEPA  
20 addendum to the City of Kirkland 2015 Comprehensive Plan Update  
21 Draft and Final Environmental Impact Statement (EIS), issued by the  
22 responsible official pursuant to WAC 197-11-340 and WAC 197-11-625;  
23 and

24  
25 WHEREAS, in open public meeting the City Council considered  
26 the environmental documents received from the responsible official,  
27 together with the report and recommendation of the Planning  
28 Commission and the Houghton Community Council; and

29  
30 WHEREAS, RCW 36.70A.130, requires the City to review all  
31 amendments to the Comprehensive Plan concurrently and no more  
32 frequently than once every year.

33  
34 NOW, THEREFORE, the City Council of the City of Kirkland do  
35 ordain as follows:

36  
37 Section 1. Comprehensive Plan Text, Figures and Tables  
38 amended: The Comprehensive Plan Shoreline Area, Ordinance 3481, as  
39 amended, in accordance with **Exhibit A** attached to this Ordinance and  
40 incorporated by reference."

41  
42 Section 2. If any section, subsection, sentence, clause, phrase,  
43 part or portion of this Ordinance, including those parts adopted by  
44 reference, is for any reason held to be invalid or unconstitutional by any

court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance.

Section 3. To the extent that the subject matter of this Ordinance is subject to the disapproval jurisdiction of the Houghton Community Council as created by Ordinance 2001, the Ordinance shall become effective within the Houghton community either upon approval of the Houghton Community Council, or upon failure of the Community Council to disapprove this Ordinance within 60 days of its passage.

Section 4. Except as provided in Section 3, this Ordinance shall be in full force and effect 14 days after approval from the Washington State Department of Ecology Director's Decision pursuant to Section 1.08.017, Kirkland Municipal Code in the summary form attached to the original of this Ordinance and by this reference approved by the City Council.

Section 5. A complete copy of this Ordinance shall be certified by the City Clerk, who shall then forward the certified copy to the King County Department of Assessments.

Passed by majority vote of the Kirkland City Council in open meeting this \_\_ day of \_\_\_\_, 2020.

Signed in authentication thereof this \_\_ day of \_\_\_\_, 2020.

\_\_\_\_\_  
Penny Sweet, Mayor

Attest:

\_\_\_\_\_  
Kathi Anderson, City Clerk

Approved as to Form:

\_\_\_\_\_  
Kevin Raymond, City Attorney

PUBLICATION SUMMARY  
OF ORDINANCE NO. O-4700

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO COMPREHENSIVE PLANNING AND LAND USE AND AMENDING THE COMPREHENSIVE PLAN ORDINANCE 3481, AS AMENDED, TO UPDATE CHAPTER XVI SHORELINE AREA AND APPROVING A SUMMARY FOR PUBLICATION, FILE NO. CAM19-00026.

SECTION 1. Amends Chapter XVI related to shoreline area of the Comprehensive Plan.

SECTION 2. Provides a severability clause for the ordinance.

SECTION 3. Provides that the effective date of the ordinance is affected by the disapproval jurisdiction of the Houghton Community Council.

SECTION 4. Authorizes the publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as 14 days after approval from the Washington State Department of Ecology Director's Decision and publication of the summary.

SECTION 5. Directs the City Clerk to certify and forward a complete certified copy of this ordinance to the King County Department of Assessments.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the \_\_\_\_ day of \_\_\_\_\_, 2020.

I certify that the foregoing is a summary of Ordinance O-4700 approved by the Kirkland City Council for summary publication.

---

Kathi Anderson, City Clerk

## ORDINANCE NO. 4701

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO ZONING, PLANNING, AND LAND USE AND AMENDING THE KIRKLAND ZONING CODE (ORDINANCE 3719 AS AMENDED) INCLUDING CHAPTERS 5, 83, 90, 141, AND 180, AND APPROVING A SUMMARY ORDINANCE FOR PUBLICATION, FILE NO. CAM19-00026.

WHEREAS, the City Council has received a recommendation from the Kirkland Planning Commission and the Houghton Community Council to amend certain sections of the Kirkland Zoning Code, Ordinance 3719, as amended, as set forth in that the report and recommendation of the Planning Commission and Houghton Community Council dated July 25, 2019 and bearing Kirkland Planning and Building Department File No.CAM19-00026; and

WHEREAS, prior to making the recommendation, the Kirkland Planning Commission and Houghton Community Council, following notice as required by RCW 36.70A.035, on April 25, 2019 and July 25, 2019, held public hearings, on the amendment proposals and considered the comments received at the hearing; and

WHEREAS, pursuant to the State Environmental Policy Act (SEPA), there has accompanied the legislative proposal and recommendation through the entire consideration process, a SEPA Addendum to Existing Environmental Documents issued by the responsible official pursuant to WAC 197-11-625; and

WHEREAS, in open public meeting on November 6, 2019 the City Council considered the environmental documents received from the responsible official, together with the report and recommendations of the Planning Commission, Houghton Community Council; and the Washington State Department of Ecology.

NOW, THEREFORE, the City Council of the City of Kirkland do ordain as follows:

Section 1. Zoning Code Amended: The following chapters and sections of the Kirkland Zoning Code are amended as set forth in **Exhibit A** to this ordinance and incorporated by reference.

Chapter 5 – Definitions

Chapter 83 – Shoreline Management (Shoreline Master Program)

Chapter 90 – Critical Areas: Wetlands, Streams, Minor Lakes, Fish and Wildlife Habitat Conservation Areas, and Frequently Flooded Areas

Chapter 141 – Shoreline Administration

Chapter 180 – Plates (Plate 27A, 47, 48A/B)

Section 2. If any section, subsection, sentence, clause, phrase, part or portion of this ordinance, including those parts adopted by reference, is for any reason held to be invalid or unconstitutional by any



court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this ordinance.

Section 3. To the extent the subject matter of this ordinance is subject to the disapproval jurisdiction of the Houghton Community Council, this ordinance shall become effective within the Houghton Community Municipal Corporation only upon approval of the Houghton Community Council or the failure of said Community Council to disapprove this ordinance within 60 days of the date of the passage of this ordinance.

Section 4. Except as provided in Section 3, this Ordinance shall be in full force and effect 14 days after approval from the Washington State Department of Ecology Director's Decision pursuant to Section 1.08.017, Kirkland Municipal Code in the summary form attached to the original of this Ordinance and by this reference approved by the City Council.

Section 5. A complete copy of this ordinance shall be certified by the City Clerk, who shall then forward the certified copy to the King County Department of Assessments.

Passed by majority vote of the Kirkland City Council in open meeting this \_\_ day of \_\_\_, 2020.

Signed in authentication thereof this \_\_ day of \_\_\_, 2020.

\_\_\_\_\_  
Penny Sweet, Mayor

Attest:

\_\_\_\_\_  
Kathi Anderson, City Clerk

Approved as to Form:

\_\_\_\_\_  
Kevin Raymond, City Attorney

PUBLICATION SUMMARY  
OF ORDINANCE NO. O-4701

AN ORDINANCE OF THE CITY OF KIRKLAND RELATING TO ZONING, PLANNING, AND LAND USE AND AMENDING THE KIRKLAND ZONING CODE (ORDINANCE 3719 AS AMENDED) INCLUDING CHAPTERS 5, 83, 90, 141, AND 180, AND APPROVING A SUMMARY ORDINANCE FOR PUBLICATION, FILE NO. CAM19-00026.

SECTION 1. Amends Chapters 5, 83, 90, 141, and 180 of the Kirkland Zoning Code.

SECTION 2. Provides a severability clause for the ordinance.

SECTION 3. Provides that the effective date of the ordinance is affected by the disapproval jurisdiction of the Houghton Community Council.

SECTION 4. Authorizes the publication of the ordinance by summary, which summary is approved by the City Council pursuant to Section 1.08.017 Kirkland Municipal Code and establishes the effective date as 14 days after approval from the Washington State Department of Ecology Director's Decision and publication of the summary.

SECTION 5. Directs the City Clerk to certify and forward a complete certified copy of this ordinance to the King County Department of Assessments.

The full text of this Ordinance will be mailed without charge to any person upon request made to the City Clerk for the City of Kirkland. The Ordinance was passed by the Kirkland City Council at its meeting on the \_\_\_\_ day of \_\_\_\_\_, 2020.

I certify that the foregoing is a summary of Ordinance O-4701 approved by the Kirkland City Council for summary publication.

---

Kathi Anderson, City Clerk

**CITY OF KIRKLAND**

**Planning and Building Department**  
**123 5th Avenue, Kirkland, WA 98033**  
**425.587.3600- [www.kirklandwa.gov](http://www.kirklandwa.gov)**

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**MEMORANDUM**

**To:** Kurt Triplett, City Manager

**From:** Christian Geitz, Planning Supervisor  
Jeremy McMahan, Deputy Planning and Building Director  
Adam Weinstein, Planning and Building Director

**Date:** March 26, 2020

**Subject:** **Review of Potential Future Long-Range Planning Work Program item - Non-Conforming Overwater Structures associated with the Shoreline Master Program Update, File CAM19-00026**

**I. RECOMMENDATION**

The City Council should consider adding Non-Conforming Overwater Structure regulations located within the existing Shoreline Master Program to the Planning Work Program as an independent item for potential consideration and study and direct staff on next steps.

*Note: Since the March 3 Council meeting, the entire Planning Work Program for 2020 and 2021 is under review in response to the COVID-19 pandemic. Governor Jay Inslee has issued orders that require any legislative body subject to the Open Public Meeting Act must meet virtually and cannot allow in-person attendance by the public. The Planning Commission, Design Review Board, Houghton Community Council and the City Council all fall under this order. The order also states that as a result of these restrictions, actions taken by these legislative bodies must be limited to those items that are "necessary" and "routine." This state directive has created a great deal of uncertainty around which Planning Work Program items meet this two-part test and how to proceed. Staff will be evaluating this in consultation with the City Attorney.*

**II. DISCUSSION**

At the February 4, 2020 Council meeting, the Council asked staff to bring back additional information on the process that would be involved in further amending the SMP section related to non-conforming overwater structures, such as boathouses. Staff returned on March 3 to discuss the requirements associated with a new out-of-cycle SMP update specifically geared toward the non-conforming overwater structure provisions of KZC 83.550.5(b)(5), while maintaining the status quo in the current SMP update. The status quo regulation for 83.550.5(b)(5) has been restored in the draft ordinance before the Council (O-4701). The following discussion expands on the previous presentations and memos, covering the background, anticipated process, relevant requirements, and estimated implications of undertaking such an update.

The non-conforming overwater structure standards are located within the SMP non-conformance section (83.550 KZC), covering management of all non-conforming items within the shoreline jurisdiction. The SMP currently requires removal of non-conforming structures in the shoreline setback (City-wide) and removal of non-conforming overwater structures within the RSA and RMA zoning districts of the City when significant development activities (exceeding 50% of the replacement cost of the structure) are undertaken on the primary structure. The non-conforming overwater structures, while located over shorelands associated with the upland property, are located over the waters of the state and have been prohibited since 1978 in King County. Council's intent in discussing this item is to explore the relaxing of the non-conforming overwater structure conformance codes for the RSA and RMA zoning districts.

**Process:** The non-conforming overwater structure code is located in section 83.550.5(b)(5) of the SMP. The Washington State Department of Ecology (Ecology) has oversight of the SMP and, pursuant to WAC 173-26-104, requires all amendments to follow established Periodic Update Guidelines. Staff has contacted our current Ecology liaison for the 2019 Period Update and confirmed the State can allow an out-of-cycle update to proceed. Ecology did explain that due to Ecology workloads, they cannot predict staff review or approval timelines at this point.

The process for the amendment would follow the same outline of the 2019 Periodic Update, with initial briefings before the City Council, Planning Commission, and Houghton Community Council. Those would be followed by a joint comment period and joint hearing held by Ecology, the Planning Commission, and Houghton Community Council. The public process requirements mandated by the State establish who a local jurisdiction must include in an update process. Ecology identified that the City would need to follow the standard amendment process, including actively soliciting public, agency, and tribal engagement and comment. Staff received a letter from the Washington State Department of Fish and Wildlife (WDFW) on this item (see Attachment 2) where they request the opportunity to provide comment and technical guidance during the amendment process.

**Timeline:** With the required oversight of Ecology and their mandate to assist other agencies working on current Periodic Reviews, it is difficult to estimate a precise timeline for further amendment of the non-conforming overwater structure regulations. The process will need to involve interested organizations and agencies with jurisdiction over the waters of the state, including WDFW, the U.S. Army Corps of Engineers (Corps), the National Marine Fisheries (NMFS), and the Muckleshoot Tribe, along with waterfront property owners and other stakeholders in Kirkland and the region. Due to the quantity of individuals interested in the relaxation of existing regulations, staff anticipates the project will take between 6 and 12 months to complete. Additional time may be required depending on unforeseen impacts of the partial removal of the current regulation and implications for other existing regulations within the SMP that may need amendment.

**Requirements:** The update process will require study and inventory of the existing non-conforming overwater structures. The Cumulative Impact Analysis (CIA) from the 2010 comprehensive update incorporated the eventual removal of such structures over time based on the current code. It is likely that the CIA will need to be revisited by a consulting

biologist for consideration in any proposed modification that seeks more permissive codes to allow the retention of non-conforming overwater structures. Staff and the consulting biologist will likely reach out to state and federal agencies with expertise in the technical aspects of habitat impact and ecological improvement relative to overwater structures, such as WDFW, the Corps, and NMFS. Ecology staff have made clear that with relaxation of one regulation intended to improve overall ecological function along the shoreline through the non-conforming structure removal requirements, the City may need to revisit and amend the cumulative impact analysis and no-net loss conclusions that were developed during the 2006-2010/11 Comprehensive SMP Update process.

Defining the structures that may remain will be a challenge, given the variety of structures that fall within the non-conforming overwater structure category. Attachment 1 illustrates a few of the various types of structures that currently fall under the non-conforming overwater structure umbrella. Initial considerations from Council, Planning Commission, and Houghton Community Council would be needed to establish a threshold for conformance. A detailed inventory and evaluation of each of the approximately 40 parcels with non-conforming overwater structures will need to occur, in order for decision-makers to scope which structures are should be retained when significant development occurs. Staff has initially developed an inventory of over water structures that appear to be non-conforming, using aerial imagery and other online resources (Attachment 2). A complete inventory will be a necessary step in the process. While around 21 structures contain only a solid canopy, approximately 20 overwater structures appear to include solid walls and could potentially fall into a separate category that appear to be within the scope of a boathouse structure. Other considerations that will need to be taken into account in designing new regulations would include the permit history of structures, compliance with existing Building Codes, and the presence of habitable space.

**Implications:** This project is estimated to require up to a dedicated approximately 0.5 full time equivalent (FTE) Senior Planner (plus regular assistance from the Department Director, Deputy Director, Planning Supervisor, Administrative Group staff, and City Attorney staff) for the duration of the project. In order to incorporate the project into the Planning Work Program without further staffing resources one or two existing moderate-to large-size projects (such as the Moss Bay and Everest Neighborhood Plan Update, Sign Code Update, Miscellaneous Code Amendments, Holmes Point Overlay Amendment Project, or ADU Project) would need to be deprioritized. Unfortunately, the Planning Commission's review of the draft 2020-22 Work Program and recommendations have been delayed by the current pandemic. If Council wishes to move forward with reexamining the regulations for non-conforming overwater structures, staff would include such a task in the draft Planning Work Program.

In addition to the staff resources noted above, the project would require some limited biological consulting assistance to work with staff in the review of the potential code amendments and revision of the Cumulative Impact Analysis. Without a scope of the potential changes, staff does not have a current estimate of those costs.

**Interim Application of Code:** Currently, one project is in review that triggers the non-conforming overwater structure threshold, wherein an existing boathouse is located over the waters of Lake Washington. Council identified an interest in understanding how staff

could handle such projects during deliberation of the potential code update. Staff could develop an interim policy allowing non-conforming overwater structures to be retained even if the 50% threshold is triggered, requiring a bond or security to ensure removal of the structure if the existing rules are ultimately retained. If Council wishes to proceed with the new work plan item, Staff requests direction on the interim application of the non-conforming overwater structures provision of the code, including the clarification of which structures should be included in the deferral policy, given the variety of structures included in the non-conforming overwater category (see Attachment 1).

### **Code Amendment Options:**

Council requested that specific options for the code amendment project be brought back for discussion. Based on the information above, staff provides the following discussion topics regarding project scope and timing.

Scope: The scope of the project could:

- Include the re-examination of the 50% threshold city-wide;
- Include all non-conforming overwater structures; or
- Include only certain non-conforming over water structures (e.g. – overwater structures that are covered, or covered with walls)

The City-wide option is an expansive option, covering a wide variety of non-conforming structures and uses throughout the City, and would be the most equitable option. The thresholds for non-shoreline nonconformances are found in [KZC 110](#) (for street improvements) and [KZC 162](#). The 50% threshold that applies City-wide can be found in KZC 162.30 as it relates to damaged improvements and 162.35.12 as it relates to other nonconformances. The City-wide option, while the most equitable, would grow the project scope to a large or extra-large work program task, potentially displacing multiple projects listed above. Narrowing the scope to just boathouses (definition to be determined by Council as discussed previously) is more manageable, but less equitable, and would involve treating a more non-conforming structure with walls differently than a solid canopy without walls or treating over water non-conformances on Lake Washington different than upland non-conformances in other neighborhoods.

**Timing:** The future study can occur within a variety of timelines. Staff is providing the following three options for initial consideration based on direction from the March 3 Council meeting, which include:

- Incorporation into the 2020-2022 Work Program currently under development;
- A future 3-year Work Program; or
- With the next SMP Periodic Review, tentatively scheduled to being in 6 years to accommodate the 8-year update target established by Ecology.

Staff requests direction from Council on these options.

### **III. ATTACHMENTS**

1. Sample Images of Non-Conforming Overwater Structures
2. Preliminary Non-Conforming Overwater Structure Inventory



Annexation Area



Image 1



Image 2



Image 3





Image 4



Image 5



Image 6





Image 7



Image 8



Image 9





Image 10



Image 11



Image 12





Image 13



Image 14

**Former City Limits (Pre Annexation)**



Image 15



Image 16





Image 17

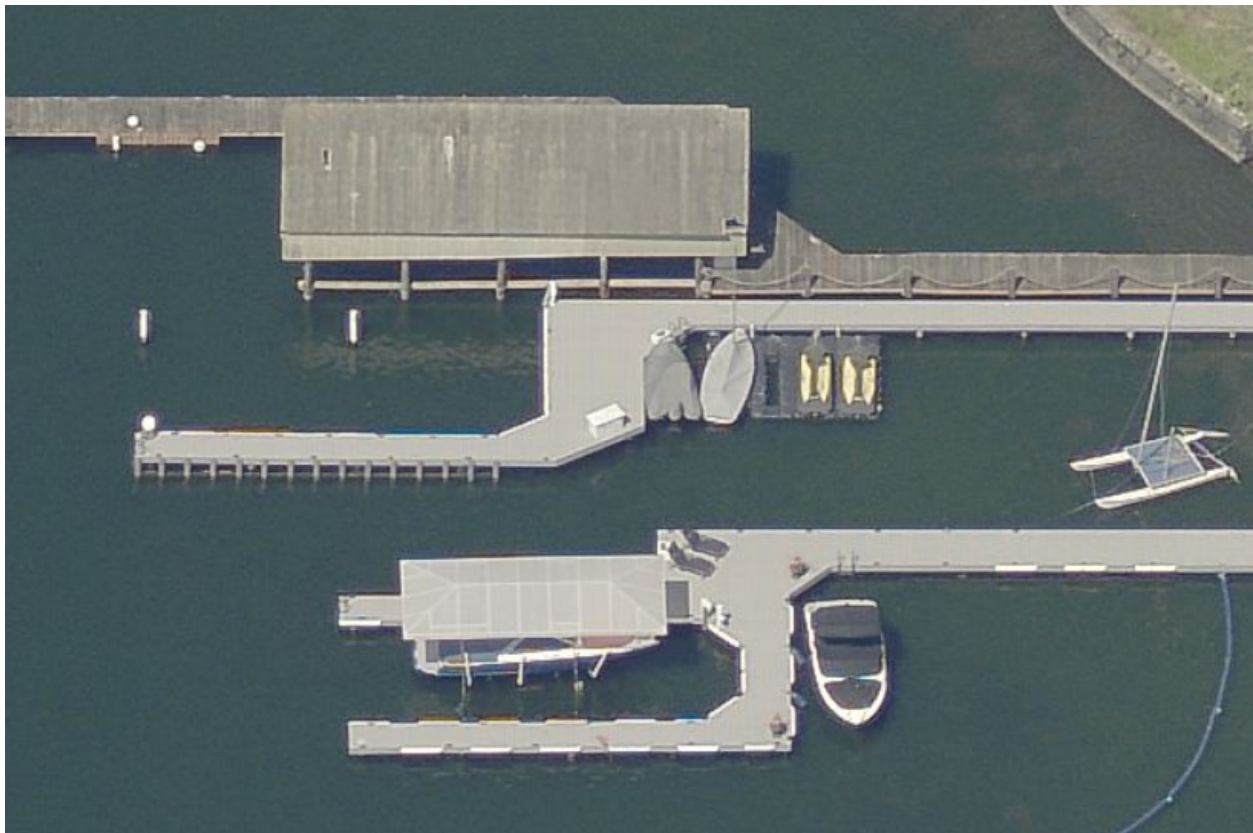


Image 18

Boathouse and overwater single-family list				
Address	Street	structure type	location (Annexation Area or City Limits pre-Annexation)	
4635	Lake Washington Blvd	Solid boat canopy	Former City Limits	
137	Lake Ave W	Solid boat canopy	Former City Limits	
515	5th Ave W	Solid boat canopy	Former City Limits	
1813	10th St W	Solid boat canopy	Former City Limits	
8879	NE Juanita Lane	Solid boat canopy (2	Annexation Area	Preliminary Definition/breakdown of structure type: Boat lift canopies with fabric are not included in this inventory boathouse = solid walls, may or may not be used for boat storage Solid boat lift canopies do not comply with KZC 83.270 canopy standards
8641	NE Juanita Drive	boat house	Annexation Area	
7829	NE 112th St	solid boat canopy	Annexation Area	
11013	Champagne Point Rd NE	solid boat canopy	Annexation Area	
11535	Holmes Point Dr NE	boat house	Annexation Area	<div>Approximate numbers:</div> <div>20 Boathouses within Annexation Area</div> <div>0 boathouses within former city limits</div> <div>4 solid boat canopies in former city limits.</div> <div>17 solid boat canopies in Annexation area.</div>
11549	Holmes Point Dr NE	solid boat canopy	Annexation Area	
11561	Holmes Point Dr NE	solid boat canopy	Annexation Area	
11615	Holmes Point Dr NE	solid boat canopy	Annexation Area	
11621	Holmes Point Dr NE	boat house	Annexation Area	
11665	Holmes Point Dr NE	solid boat canopy	Annexation Area	
11683	Holmes Point Dr NE	boat house	Annexation Area	
11733	Holmes Point Dr NE	boat house	Annexation Area	
11837	Holmes Point Dr NE	boat house	Annexation Area	
12423	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12453	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12511	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12705	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12711	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12719	Holmes Point Dr NE	boat house	Annexation Area	
12933	Holmes Point Dr NE	solid boat canopy	Annexation Area	
12949	Holmes Point Dr NE	boat house	Annexation Area	
13104	Holmes Point Dr NE	boat house	Annexation Area	
13118	Holmes Point Dr NE	boat house	Annexation Area	
13137	Holmes Point Dr NE	solid boat canopy	Annexation Area	
13153	Holmes Point Dr NE	solid boat canopy	Annexation Area	
13217	Holmes Point Dr NE	boat house	Annexation Area	
13225	Holmes Point Dr NE	boat house	Annexation Area	
13233	Holmes Point Dr NE	boat house	Annexation Area	
13415	Holmes Point Dr NE	boat house	Annexation Area	
6045	NE 135th St	boat house	Annexation Area	
13613	62nd Ave NE	solid boat canopy	Annexation Area	
13635	62nd Ave NE	boat house	Annexation Area	
13643	62nd Ave NE	solid boat canopy	Annexation Area	
13649	62nd Ave NE	boat house	Annexation Area	
13667	62nd Ave NE	boat house	Annexation Area	
13823	62nd Ave NE	boat house	Annexation Area	
13835	62nd Ave NE	boat house	Annexation Area	