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MEMORANDUM

To: Houghton Community Council

From: Stacy Clauson, Contract Planner
Teresa Swan, Senior Planner
Paul Stewart, Deputy Director of Planning

Date: November 14, 2008

Subject: Kirkland's Shoreline Master Program Update (SMP)
File No. ZON06-00017

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I. RECOMMENDATION

- Review and provide direction on proposed shoreline designations and some of the zoning regulations for the update to the Shoreline Master Program.

II. INTRODUCTION

On November 24, 2008 the Houghton Community Council will begin its review of the initial draft of the regulations associated with the Shoreline Master Program. The Houghton Community Council has previously reviewed the draft shoreline goals and policies that will be added as a new chapter in the Comprehensive Plan. Staff recognizes that this is an extensive amount of material that needs to be reviewed by the Houghton Community Council. In Section III below we've identified key policy issues to focus the discussion. The Houghton Community Council may also want to look at Attachment 6 which is the outline for the SMP regulations to get a sense of the overall framework. It is unlikely that we will be able to work through all the sections at this meeting (which can be carried over to the next meeting) however we did want the Houghton Community Council to see how the various SMP regulations fits together. The Planning Commission began their review of the regulations in September and October. They are scheduled to meet again on November 20th.

III. KEY ISSUES

Attachment 6 contains a draft outline of a new Chapter to be added to the Zoning Ordinance that would contain the regulations addressing the shoreline. The draft regulations contained in this packet address the following sections of this new Chapter:

- Definitions (see Attachment 11)
- Shoreline Environment Designations (see Attachment 8)
- Uses and Activities in the Shoreline Environment (see Attachment 10), and
- General Regulations (see Attachment 13).

Other sections will be brought forward to Houghton Community Council review at later meetings.

The draft regulations are based upon the policies that were reviewed with Houghton Community Council and Planning Commission in the earlier part of this year, direction provided in the State Guidelines, advice and consultation with The Watershed Company, the Department of Ecology, and City staff with expertise in areas covered under these provisions, examination of public input and existing regulations, as well as approaches used by other cities undergoing an SMP update process.

In order to use the meeting time effectively, staff recommends that the following key policy issues that staff has identified be discussed at the November 24, 2008 meeting, as well as any other key concerns identified at the meeting by Houghton Community Council members:

A. Shoreline Environment Designations – Have the properties within the Houghton Community Council jurisdiction been accurately classified into shoreline environment designations based on an appropriate analysis of the shoreline environment designation criteria? (see Section VIII starting on page 6, as well as the proposed Shoreline Environment Designations in Attachment 7, criteria for shoreline environment designation in Attachment 8, and a preliminary evaluation of this criteria contained in Attachment 18).

B. Shoreline Environment Management Policies – Are the proposed management policies appropriate for each Shoreline Environment? (see Section VIII starting on page 6, as well as the proposed management policies in Attachment 9).

C. Use Table – Are the permitted uses, conditional uses, and prohibited uses appropriate for each shoreline environment designation? In particular, what permit process should apply to new bulkheads in the Residential and Urban Mixed shoreline environments? (see Section IX starting on page 10, Attachment 10, as well as Attachment 12 which contains a comparison of key changes or new uses in the chart).

D. Use Definitions - Are any revisions needed to new definitions, particularly those relating to new uses that are unique to the SMP? (e.g. concession stand, neighborhood-oriented retail establishment, dry land storage, marina, tour boat facility, moorage buoy, boat launch, boat house, houseboat, ferry terminal, water taxi, and helipad) (see Attachment 11).

E. Shoreline Wetlands and Streams – Is the direction taken for updating the wetland and stream regulations as they would apply within the shoreline jurisdiction acceptable? (see Section X.2 starting on page 16, as well as Attachment 13).

F. Retention of Significant Trees – What standards should apply to removal of significant trees within the shoreline setback? (see Section X.8 starting on page 21).

G. Other Key General Regulations – Are there any comments or questions on other key general regulations (e.g. view corridors, public access, lighting, etc.)? (see Section X and Attachment 13).

IV. WORK PROGRAM

The Houghton Community Council has completed review of draft policies for the Shoreline Master Program update. Regulations to implement these policies will be drafted and reviewed in 2008 and 2009. Attachment 1 is a work program to accomplish these tasks. The schedule indicates four Houghton Community Council study sessions as well as continued study sessions with the Planning Commission. A Public Hearing is tentatively planned for scheduled for April, 2009 and adoption is scheduled for July, 2009. Following adoption, the SMP is transmitted to the Department of Ecology for their review and approval.

Staff has identified an initial list of issues that are to be addressed. These are noted above in Section II. At the meeting on November 24, 2008, the Houghton Community Council may want to note other issues to be considered as we start to draft the regulations.

V. PUBLIC PARTICIPATION

Since the last meeting with the Houghton Community Council on May 27, 2008, the following opportunities for public participation and comment have occurred:

A. Open House. A Public Open House focusing on the SMP Update was held on Monday, June 9th. The primary goals of the Open House were to:

1. Provide broad notice to property owners and other interested citizens of the City's Shoreline Master Program and opportunities available to engage in the process.
2. For participants to advise the City on what issues are of greatest interest and concern to them and, therefore, should be included in the update;
3. Identify the future vision of the waterfront in 25 years; and
4. For participants to prioritize key tools that the City should use in implementing the updated Shoreline Master Program.

The Open House was broadly advertised through a number of different outlets, including mailed notices to property owners within the shoreline jurisdiction, posting on the City's main webpage, noticing to members of the Shoreline list-serv, publishing of articles in the newspaper, mailed notices to non-governmental organizations and state and federal departments with interest, and posting on notice boards throughout the City. It was estimated that 31 people attended the Open House. Background materials were made available for public review at the Open House and a copy of the display boards is included for your review in Attachment 2. A record of the items discussed is included in Attachment 3.

B. Survey. An on-line survey was conducted addressing issues relating to shoreline management. The availability of the survey was noticed via the Open House, on notice boards, to both the City's list-serv and Shoreline list-serv, on the City's main website, in news releases and other outlets.

The survey was available from June 9th to July 11th and 59 citizens participated. The results of the survey are summarized in Attachment 4.

C. Draft Policies. The draft goals and policies as reviewed by the Planning Commission and Houghton Community Council have been posted on the SMP website, with an opportunity for the public to review and comment.

D. Attendance at Lakeview Neighborhood Meeting. Representatives attended the June 23rd meeting of the Lakeview Neighborhood Association to provide an overview of the SMP process and opportunities for public involvement.

E. Moss Bay and Market Street Neighborhood Meetings – Presentation to the neighborhood associations will be held on November 17th and November 19, 2008 respectively. An update for the Lakeview Neighborhood occurred earlier this year.

Public notice of the Houghton Community Council will continue to be provided on the public notice boards that have been installed at key locations along the City's shoreline. The project's list service will e-mail all subscribers with meeting information and provide links to the staff meeting packets available for viewing prior to the HCC meetings. The website developed for the SMP Update will continue to be managed to include information about meeting dates and meeting packets. In addition, a public workshop is tentatively planned for March, 2009. Houghton Community Council members are encouraged to attend this workshop. Staff will also continue to work with the Houghton Community Council during regulation development.

In addition to these opportunities to engage the public, there has been interest expressed among **property owners to meet and discuss new shoreline regulations** that will impact their property. Staff is in the process of working out the details for meeting format and will be able to share more information on this meeting when it becomes available.

VI. UW STUDY EVALUATION LAKE WASHINGTON SHORELINE PERMIT PROCESS

An interdisciplinary group of graduate students enrolled in the University of Washington's Environmental Management Certificate Program released their results of a study undertaken evaluating the Lake Washington Shoreline Permitting Process (see Attachment 5). Some of the key recommendations from this report are as follows:

- Streamline the permit process for eco-friendly shoreline designs at the state and/or local level.
- Increase outreach and education efforts to Lake Washington property owners and shoreline contractors.
- Promote collaboration and coordination between the local, state and federal permit issuing agencies that regulate shoreline construction on Lake Washington.

In response to these recommendations, a working group of representatives from Lake Washington jurisdictions has convened in order to promote collaboration and coordination. The City is participating in this effort.

VII. KEY ISSUES FROM PLANNING COMMISSION REVIEW OF DRAFT REGULATIONS

The Planning Commission has completed two study sessions for draft regulations, with another scheduled for November 20, 2008. At these meetings, the Planning Commission has reviewed and provided feedback on a number of proposed code provisions, including:

- Definitions (for relevant portions of SMP)
- Shoreline Environment Designations and Shorelines of Statewide Significance
- General Regulations, and
- Use Chart with permitted, prohibited and conditional uses.

Planning Commission specific recommendations on these issues are included in the relevant section below.

The Planning Commission has begun review of some provisions addressing shoreline modifications, in particular shoreline stabilization. In their review of issues, one of the key areas of both **property owner concern** and Planning Commission inquiry has involved **shoreline stabilization**. More detailed information on property owner concerns can be found in individual communications contained within the public comments included in Attachments 19-44, but in general the issues being addressed, as posed by the property owners, can be summarized as follows:

1. Concern over regulations that would require removal of existing bulkheads. Many shoreline property owners have emphasized the value they place upon the protection that their bulkheads provide from impacts caused by strong wave currents and boat wakes along the shoreline. Property owners have also raised questions about softer structural shoreline protection alternatives, due to narrow lot depth, exposure to extremely rough water conditions, and existing development located close to the water.
2. Comments that new regulations are not necessary and are unfair.
3. Questions about the scientific information that is being used as a basis to support the new requirements.
4. Concerns about requirements for shoreline vegetation, which might limit individual choice and block views. There has also been concern expressed that vegetation along Kirkland's shorelines would not provide desired benefits, such as shading, because of our orientation on the east side of the Lake.
5. Emphasis on water quality within the watershed as a significant concern that should be addressed. Several shoreline property owners have expressed that water quality is a higher priority than the shoreline restoration measures being sought.
6. Encouragement for the City to adopt a softer approach to improving lake shore quality, by encouraging residents to improve the shoreline with vegetation and/or soft shoreline stablization, rather than relying on regulation.

In addition, shoreline property owners have also emphasized that the City should carefully consider how these measures would be implemented on City-owned properties along the shoreline, including costs and impacts to the usability of parks.

These comments highlight the importance of drafting regulations in a reasonable manner with respect for existing improvements and property rights. In response to these initial concerns, staff has prepared an information sheet that was distributed to attendees of all public meetings regarding the SMP Update process (see Attachment 16).

The Planning Commission will continue their review of this issue, together with shoreline setbacks and shoreline vegetation, at their November 20, 2008 meeting. Staff can provide a summary of the Planning Commission discussion on this topic at the November 24, 2008 meeting. These issues are scheduled to come forward to the Houghton Community Council for your detailed review at your next meeting.

VIII. SHORELINE ENVIRONMENT DESIGNATIONS

Within the areas subject to the Shoreline Master Program, Environment Designations function much like zones do throughout the City, locating particular land uses where they are most appropriate, considering ecological functions, public utilities, road access, and the planned and established development pattern.

A. Introduction

Environment Designations are based on physical, biological, and development characteristics of specific shoreline reaches. In determining the discrete boundaries for each shoreline environment and the management policies for each Shoreline Environment, there are a number of issues that need to be considered, including:

- Maintaining ecological function and ensure protection of ecologically intact shorelines. In designating shoreline boundaries and establishing different uses, we should consider how the planned uses are likely to impact current ecological conditions.
- Reserving appropriate waterfront lands for water-dependent and water-related uses, as well as public access, considering the long term needs of Kirkland for its limited waterfront lands.
- Identifying current uses, projected needs for marinas and other water-dependent uses, and public access.
- Integrating for consistency with overlapping land use plans, such as the Comprehensive Plan and Zoning Code.
- Designating based on current conditions (structures, uses, clearing), regardless of previous SMP Designation.

B. Proposed City Shoreline Designations and Map

Attachment 7 contains a proposed map designating areas within the Shoreline Jurisdiction into seven different shoreline environments reflecting existing conditions and uses along the shoreline. The following is a description of the shoreline environments within the Houghton Community Council shown on the map:

- *Aquatic* – The Aquatic designation has been applied to lands waterward of the ordinary high water mark (i.e., Lake Washington).

- *Natural* – The Natural designation has been applied to wetlands in and adjacent to the Yarrow Bay Wetlands complex (i.e. Yarrow Bay).
- *Urban Conservancy* - The Urban Conservancy designation has been applied to all areas classified within Houghton as Park/Open Space in the Comprehensive Plan (i.e. shoreline city parks).
- *Residential - L* - The Residential - L designation has been applied to all areas classified as Residential - L in the Comprehensive Plan, except for those parcels containing associated wetlands contiguous with the Yarrow Bay Wetlands (i.e. small area east of Lake Washington Blvd and south of NE 46th St)..
- *Residential - M/H* - The Residential - M/H designation has been applied to all areas classified as High Density Residential and Medium Density Residential in the Comprehensive Plan, except the wetland or stream buffer areas that have been designated as either Natural or Urban Conservancy (i.e. much of the shoreline in Houghton).
- *Urban Mixed* - The Urban Mixed designation has been applied to all areas classified as Commercial and Office/Multi-Family in the Comprehensive Plan (i.e.Carillon Point and commercial areas east of Lake Washington Blvd.).

C. Consistency with State Guidelines

Designation of the City's shoreline environments is to be based primarily on the Guidelines Designation Criteria described in WAC 173-26-211 of the new State Guidelines, which addresses shoreline ecological functions, and current conditions/uses as characterized in the Shoreline Inventory, Analysis and Characterization.

Attachment 18 contains a table with detailed analysis of how the proposed classification system and map are consistent with the State Guidelines. In this table, The Watershed Company has noted each of the management policies described in WAC 173-26-211(4)(a)(i-iii) and analyzed each of the shoreline segments established in our inventory for consistency with these principles.

Current conditions are incorporated into this analysis based upon the original shoreline inventory and analysis. This inventory divided the shoreline into different study segments (segments B-D) based upon existing land use and character.

Each Designation is required to have:

- A stated purpose, based on WAC 173-26 Guidelines, that describes the shoreline management objectives of the designation in a manner that distinguishes it from other designations.
- Classification criteria, which provide the basis for classifying or reclassifying a specific shoreline area within an environment designation.
- Management policies, which are intended to assist in the interpretation of the environment designation regulations and evaluate consistency with the Comprehensive Plan.
- The description of these purpose and classification criteria is contained within a new section of regulations contained in Attachment 8. The management policies have been added to the policy language in the new Comprehensive Plan Chapter, which is included in Attachment 9.

D. Comparison of Existing Designations versus Proposed Designations

In many ways, the proposed designation system is similar to the existing designation system. The following describes some of the key changes to the existing shoreline environment designation system, as well as potential inconsistencies between current Comprehensive Plan designations and proposed Shoreline Environment Designations:

- Yarrow Bay –
    - A Natural designation is proposed over all or part of undeveloped single family platted parcels at the northwest and southwest ends of Yarrow Bay area that contain wetlands and/or associated buffers and are contiguous with the Yarrow Bay Wetlands.

      The existing Comprehensive Plan designates this area for Low Density Residential development. The Natural designation as applied to this area recognizes the need to protect these areas, which have high ecological function.

      The State Guidelines note that single family residential development may be allowed as a conditional use within the Natural environment. The Natural designation is comparable to the designation of these properties as Conservancy 2 in the current SMP. Both the existing SMP and proposed SMP would require a Shoreline Conditional Use to construct a single-family residence in this shoreline environment.

      As a new provision, the proposed SMP would specifically restricts further land division in the Natural shoreline environment, if the lot to be created would be wholly contained within the Natural shoreline environment. This proposed provision clarifies the existing City practice that prohibits the creation of new lots that would be fully encumbered by wetlands or wetland buffers. In addition, please note that development of a single-family residence in the Natural Shoreline environment may also require a Shoreline Variance, if impacts to wetland or wetland buffers are required (Note: this issue is further addressed in the Wetlands Section below). A Shoreline Variance requires approval by the Department of Ecology and may be difficult to obtain.
    - The Natural designation overlaps onto some of the wetlands associated with properties that are designated in the Comprehensive Plan for either medium density development or Office/Multifamily, such as The Plaza at Yarrow Bay. This is not consistent with the existing Comprehensive Plan designation of these properties. The implications of this designation are not expected to be significant, since these properties are currently developed under an existing Planned Unit Development and the wetland area associated with development on the property within the shoreline jurisdiction is already constrained by existing critical area regulations.
- Waterfront Parks - Properties within the City's waterfront park system, with the exception of Marina Park and Juanita Beach Park in the commercial areas, and Yarrow Bay Wetland Park and Juanita Bay Park in extensive wetland systems, are proposed to be designated as Urban Conservancy, in recognition of their use as open space and suitability for maintaining or restoring ecological functions. Presently, these properties are located in residential shoreline environments, the same as the surrounding residential properties.

E. Proposed SMP versus Zoning

The proposed shoreline environment designations are done at a broad based level taking into account the physical, biological, and development characteristics of specific shoreline areas. As a result, the shoreline designations are more general than the City's zoning classifications, which break the City into more discrete planning areas. Zoning classifications and regulations can change more readily than shoreline master program designations and regulations which are intended to have a long-term planning horizon and require a timely and complex State approval process to amend.

IX. USES AND ACTIVITIES

A. **General.** Attachment 10 contains a draft Use Table that outlines proposed uses and activities would be either permitted, subject to conditional approval, or prohibited within particular Shoreline Environments. Attachment 17 contains an overview of the local, state, and federal shoreline permitting process (using shoreline stabilization as an example), and contains a description of the differences between Substantial Development Permits and Conditional Use Permits.

Please note that shoreline-specific definitions that may assist in your review of the Use Table are contained in Attachment 11. Use specific regulations which will provide more detail on the required standards for each of the listed uses will be brought to the next Houghton Community Council meeting.

When determining allowable uses and resolving use conflicts on shorelines, we need to apply the following preferences and priorities based on the State Guidelines in the order listed below:

1. Reserve appropriate areas for protecting and restoring ecological functions to control pollution and prevent damage to the natural environment and public health.
2. Reserve shoreline areas for water-dependent and associated water-related uses.
3. Reserve shoreline areas for other water-related and water-enjoyment uses that are compatible with ecological protection and restoration objectives.
4. Locate single-family residential uses where they are appropriate and can be developed without significant impact to ecological functions or displacement of water-dependent uses.
5. Limit nonwater-oriented uses to those locations where the above described uses are inappropriate or where nonwater-oriented uses demonstrably contribute to the objectives of the Shoreline Management Act.

Attachment 12 describes some of the **key changes** from the existing SMP and compares the proposed SMP uses with existing zoning provisions. There would not be significant changes between the existing and new SMP.

Please evaluate these proposed changes and be prepared to discuss any concerns or recommended revisions that you may have.

Planning Commission Direction: The Planning Commission has reviewed this chart and provided recommendations to add a listing for **public floatplane operations** and to clarify the extent of public park improvements. These changes have been incorporated into the draft proposed for review.

B. **Policy Issue:** One specific policy issue that staff is seeking input on is what permit process to use for review of new bulkheads in the residential and Urban Mixed shoreline environments.

Background: WAC 173-27-040 provides specific exemptions for: Construction of the normal protective bulkhead common to single-family residences. A "normal protective" bulkhead includes those structural and nonstructural developments installed at or near, and parallel to, the ordinary high water mark ***for the sole purpose of protecting an existing single-family residence and appurtenant structures from loss or damage by erosion*** [emphasis added]. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land.

WAC 173-26-211 establishes management policies for different shoreline uses. Generally, shoreline modifications, such as hard structural shoreline stabilization measures, within the Natural and Urban Conservancy environments should be limited or not allowed, as these would degrade the ecological functions or natural character of these sensitive or intact shoreline areas.

The draft Shoreline Uses Table in Attachment 10 shows a Conditional Use Process (CUP) being required for hard structural shoreline stabilization measures. This is not required under the State Guidelines. The requirement of a **CUP is commonly used when greater protection of ecological resources is needed**, typically within either Natural or Conservancy designated shoreline areas. (Note: A CUP has a longer review process, higher application fees, additional review criteria, and must also be approved by the Department of Ecology, as compared to Substantial Development Permit (SDP). See Attachment 2 for more information on permitting requirements).

Proposed Regulations: Staff initially proposed the CUP process for the Residential and Urban Mixed environments in order to allow City permitting of **soft structural shoreline stabilization measures to have a lower level of review** than hard structural stabilization measures, thereby encouraging use of soft structural shoreline stabilization by applicants.

In some cases, the soft structural shoreline stabilization may qualify as a restoration project and only require a State Shoreline Exemption. The federal agencies have also created a process for streamlining review and approval of soft structural shoreline stabilization, which saves applicants time and money (see Attachment 2 for overview of the local, state, and federal shoreline permitting process for shoreline stabilization).

It is important to note that the State regulations currently provide an exemption for new bulkheads to protect single family residences, provided that the bulkhead is needed to protect the structure from damage from erosion. If a CUP process was required, however, a permit process would be required, despite this existing exemption listing.

Some property owner's only choice is to have a bulkhead or concrete wall rather than soft shoreline stabilization due to the location of existing improvements very near the shoreline, water depth and/or soil conditions. These property owners would see it as being penalized for having to obtain a CUP instead of an SDP.Currently the SMP does not require a CUP for bulkheads, except in a Conservancy Environment.

Planning Commission Direction: The Planning Commission will be reviewing this issue at their November 20th meeting. Staff can provide a summary of their recommendation at the November 24th meeting.

Option 1: Establish the CUP process for new bulkheads in the Residential and Urban Mixed shoreline environments. Option 1 would establish a permitting priority for consideration of soft shoreline structural stabilization, since it would have a lesser permit process.
Option 2: Retain an SDP permit review for new bulkheads in the Residential L and M/H and Urban Mixed shoreline environments. Retain the CUP process for the Urban Conservancy shoreline environment. Retain the limitation on new bulkheads in the Natural shoreline environment.
Staff Analysis: Staff recommends Option 2 however, either option would be appropriate, though there may be concern among property owners about a more strenuous review process for bulkheads and the fairness if a bulkhead is their only option. If Option 1 is chosen, staff would recommend making a refinement to this provision to clarify that replacement and repair activities are not included.

X. GENERAL REGULATIONS

The regulations in Attachment 13 contain provisions that will be applied either generally to all shoreline areas or to shoreline areas that meet the specified criteria of the provision without regard to the environment designation. Provided below is a summary of each issue, input from the public (if any), options to consider (if there are different policy options), together with a staff recommendation, if needed.

1. **Critical Areas – General Standards** (see KZC 83.440 in Attachment 13)

   Key Issue: Including a new section that addresses the sequence in which mitigation shall be followed, as required under the provisions of WAC 173-26-201(2)(e).

   Background: These new standards are proposed by staff to address many of the best management practices that are to be used for wetlands, streams, and geologically hazardous areas.

   Proposed Regulations: See Attachment 13.

2. **Wetlands** (see KZC 83.450 in Attachment 13)

   Key Issues: Updating the City's current wetland management system as it will apply within the shoreline area to be consistent with current Ecology guidance on 1) the wetland rating system to be used, 2) appropriate buffer widths, and 3) ratios for compensatory mitigation. Amendments to the existing permit processes are also needed to reflect shoreline permitting and requirements of the Department of Ecology.

   Background: Under the provisions of WAC 173-26-221(2), the City's Shoreline Master Program must provide for management of critical areas, including wetlands. The City's wetland regulations as contained in the new SMP must provide a level of protection that is at least equal to the provisions of the citywide critical area ordinance found in Chapter 90 of the Kirkland Zoning Code (KZC). The Guidelines also advise us to review the Department of Ecology's technical guidance on

wetlands, including use of Ecology's Western Washington Wetland Rating System or a regionally specific, scientifically based method.

Staff has consulted with the Department of Ecology on the adequacy of the City's current wetland regulations found in Chapter 90 KZC. The City's current wetland regulations were adopted in 2003, which predates the issuance of the final version of the Department of Ecology's Western Washington Wetland Rating System as well as Ecology's synthesis of scientific literature on wetlands and issuance of guidance for management of wetlands (Wetlands in Washington State). Both of these documents meet the criteria for Best Available Science (BAS) as defined in WAC 365-195-905, which cities and counties are required to meet when amending their zoning regulations to protect critical areas.

After review, the Department of Ecology has issued a formal letter advising the City that our wetland rating system does not meet the requirements established in WAC 173-26-221(2) (see Attachment 14). The City's standard buffers are also not consistent with current Ecology Guidance.

According to current state requirements, the City must undertake an update to its current citywide critical area regulations by 2011. The deadline for completion of the update to the SMP is 2009, which means that the City must make some amendments with this SMP update to be consistent with the State Guidelines. In evaluating options on how to respond to this issue, staff has considered the schedule and time frame in which to complete the SMP. Given these factors, staff is recommending that a full update of the critical areas ordinance in Chapter KZC be deferred until a later time in order to allow the SMP to progress on a timely schedule and to ensure that sufficient staff resources can be dedicated to updating the citywide critical areas ordinance.

Proposed Regulations: As an alternative to a full re-draft of the wetland regulations, staff has proposed to use the City's existing regulations for wetlands as contained in Chapter 90 as a template for the SMP provisions, with changes made as needed to the wetland rating, buffers, and permitted modifications to be consistent with the current Ecology guidance on wetland protection (note: the provisions are highlighted so that you can better track any proposed changes to the existing regulations contained in Chapter 90 KZC). The focus has been to make the minimum necessary changes needed at this time to existing standards contained in Chapter 90 KZC in order comply with the Department of Ecology's guidance.

It should be noted that these changes apply to very few privately held properties. To better understand the impact of the new standards, staff has prepared a map that shows the extent of wetland buffers based upon current wetland regulations as compared to that with the new buffers (see Attachment 15). Private properties are highlighted in grey, and the purple areas show where buffers are anticipated to change (either increase or decrease depending on circumstance). It is estimated that the new standards may increase buffers on less than 10 privately-held properties, of which only one property is located within the Houghton Community Council jurisdiction.

As the City conducts its required update to the city-wide critical area regulations, a more complete review and revision to the wetland regulations will be made. As a result, the new SMP provisions may need to be re-evaluated when the full update to the citywide critical areas regulations are

undertaken . In the meantime, this limited application of new Ecology required standards provides the City an opportunity to evaluate these provisions and their potential application City-wide.

The draft language for the SMP critical area regulations is contained in Attachment 13 and the following provides an overview of key amendments:

- The **general exceptions section** found in KZC 90.20 is not included in these provisions. Ecology has advised jurisdictions that these types of general exceptions cannot be included, as they either conflict or are redundant with the provisions of WAC 173-26-040 which establish the types of activities that are exempt from the provisions of the SMP.
- The **Washington State Wetland Rating System** for Western Washington is proposed to be used for the shoreline regulations, rather than the existing rating system contained in Chapter 90 KZC, which was determined by the Department of Ecology to not be in compliance with the State Guidelines. The use of the Washington State Wetland Rating System for Western Washington may smooth permitting for applicants proposing to directly impact wetlands, which also require Ecology review. Currently, applicants impacting wetlands must rate the impacted wetland using both the City's and Ecology's systems and this change will streamline this requirement.
- A **reference** has been added to the analysis completed by King County that documents how the proposed wetland buffers are consistent with the GMA requirement for **Best Available Science**, as requested by the Planning Commission.
- The **buffer requirements** for wetlands have been modified to reflect more current standards based on best available science. The proposed buffers are reflective of the buffers that King County has adopted to regulate wetlands within their Urban Growth Area (UGA). These buffer requirements have also been incorporated into the Lake Forest Park critical areas provisions as part of their SMP update, and based upon initial review and discussions, it appears that the Department of Ecology will accept these buffers. To better understand the impact of the revised wetland rating and wetland buffers, staff has prepared a map that shows the extent of wetland buffers based upon current wetland regulations as compared to that with the new buffers (see Attachment 17). Note that these buffer standards would only apply to those areas within the shoreline jurisdiction and would not include buffers that are located outside of 200 feet from the ordinary high water mark – those wetland buffers outside of the 200 feet area would continue to be measured using the buffer standards contained in KZC Chapter 90.
- Standards for **storm water outfalls** have been clarified and revised to reflect current guidance on location of piped systems.
- The standards for **compensatory mitigation** have been modified to utilize the mitigation ratios specified in the Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10 guidance as contained in Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance. Similar to use of the new rating system, this will smooth permitting and mitigation design for applicants proposing to directly impact wetlands, which also requires

Ecology review. Currently, applicants impacting wetlands are already required by Ecology to use Ecology's wetland mitigation ratios.

- **Reasonable use provisions have been included** to allow for the development of a single family residence within a wetland buffer that meet certain standards. A Reasonable Use permit allows a single family home to be built on a single family zoned property containing a wetland or buffer that otherwise could not be built due to critical area restrictions. The City's Reasonable Use provisions provide the City with a mechanism to approve limited use and disturbance of a sensitive area and sensitive area buffer when strict application of Chapter 90 KZC would deny all economically viable use of the property.

  These provisions are similar to the administrative reasonable use exception currently contained in KZC Chapter 90. **Proposed encroachments beyond those specified in this section would be subject to approval under a Shoreline Variance and would need to meet the established compensatory mitigation provisions**. A Shoreline Variance must be approved by the Department of Ecology and is subject to additional review standards than a typical shoreline permit. This process and requirement has been proposed to ensure that direct impacts to wetlands are fully mitigated in order to ensure that there is no net loss of wetland functions or area.

  Planning Commission Direction: The Planning Commission has reviewed these provisions and expressed general support for the direction proposed by staff, acknowledging that a limited number of properties would be impacted and that any changes to sensitive area regulations City-wide would be reviewed through a separate process, at which point these regulations can be re-examined. The Planning Commission requested some minor modifications, which have been incorporated into the draft materials submitted for your review.

  Public Input: Protection of natural systems such as wetlands has been consistently supported as a high priority among SMP participants. Respondents rated the protection of functioning habitats as the top priority for Kirkland to focus its attention on for its waterfront, followed by preventing stormwater runoff and restoring degraded habitats.

Staff recommendation: Staff proposes the adoption the Department of Ecology's wetland rating system and the buffer widths used for the King County UGA area. This is viewed as the best approach to updating the regulations and likely to be acceptable to the Department of Ecology. The King County UGA area buffer widths are similar to the buffer widths used by other jurisdictions in updating their wetland regulations. Staff believes that the buffer widths are easier and less costly to implement than the Ecology buffers which require interpretation and analysis of the adjoining uses to determine appropriate buffer widths.

3. Streams (see KZC 83.460 in Attachment 13)

Key Issues: None.

Background: The Guidelines addressing streams are contained in WAC 173-26-221(2)(c)(iv) and focus on:

- No net loss of ecological functions
- Facilitation of restoration projects

The City's current stream regulations satisfy these requirements by containing:

- Standards for buffer protection on both sides of the stream which restrict land surface modification or development activities that might otherwise degrade the existing conditions, such as improper storm water outfalls, unmanaged clearing or grading, or vegetation removal.
- Provisions for allowance of stream rehabilitation projects.

Unlike the wetland regulations, the Department of Ecology has not issued specific guidance for management of streams. Further, in Kirkland the management of streams in the shoreline area is limited to the first 200 feet of the stream next to Lake Washington that would be contained within the shoreline jurisdiction. As a result, it is not expected that the City will be required to make significant changes to its existing stream regulations at this time.

Proposed Regulations: The existing stream regulations as contained in Chapter 90 KZC have been incorporated into the draft SMP Chapter, with minor wording changes to some existing sections of the stream regulations as they currently existing in Chapter 90 KZC. No significant changes (e.g. to buffers and buffer reduction mechanisms, etc.) have been made. The following minor changes were made (similar to the wetland provisions):

- The **general exceptions section** found in KZC 90.20 is not included in these provisions. Ecology has advised jurisdictions that these type of general exceptions cannot be included, as they either conflict or are redundant with the provisions of WAC 173-26-040 which establishment the types of activities that are exempt from the provisions of the SMP.
- Standards for **storm water outfalls** have been clarified and revised to reflect current guidance on location of piped systems.
- The **reasonable use provisions that are currently contained in KZC Chapter have been inserted into the wetland regulations**. A Reasonable Use permit allows a single family home to be built on a single family zoned property containing a stream or buffer that otherwise could not be built due to critical area restrictions. The City's Reasonable Use provisions provide the City with a mechanism to approve limited use and disturbance of a sensitive area and sensitive area buffer when strict application of Chapter 90 KZC would deny all economically viable use of the property.

Planning Commission Direction: The Planning Commission has reviewed these provisions and expressed general support for the direction proposed by staff, acknowledging that a limited number of properties were impacted and that any changes to citywide sensitive area regulations would be reviewed through a separate process, at which point these regulations can be re-examined. The Planning Commission requested some minor modifications, which have been incorporated into the draft materials submitted for your review.

Public Input: Protection of natural systems such as streams has been consistently supported as a high priority among SMP participants. Respondents rated the protection of functioning habitats as the top priority for Kirkland to focus its attention on for its waterfront, followed by preventing stormwater runoff and restoring degraded habitats.

4. **Geologically Hazardous Areas** (see KZC 83.470 in Attachment 13)

Key Issues: None.

Background: The Guidelines addressing geologically hazardous areas are contained in WAC 173-26-221(2)(c)(ii) and focus on:

- Complying with minimum guidelines for geologically hazardous areas as contained in the Growth Management Act provisions
- Prohibiting new development (or creation of new lots) that would:
    - Cause foreseeable risk from geological conditions
    - Require structural shoreline stabilization over the life of development

The City's current geologically hazardous areas regulations contained in KZC Chapter 85 satisfy these requirements, with the exception of the provisions addressing structural shoreline stabilization, by containing:

- Provisions addressing the identification and protection of erosion hazard area, landslide hazard area, and seismic hazard areas.
- Provisions requiring geotechnical investigation and geotechnical reports.
- Provisions which permit the limitation or restriction of any development activity that may:
    - Significantly impact slope stability or drainage patterns on the subject property or adjacent properties;
    - Cause serious erosion hazards, sedimentation problems or landslide hazards on the subject property or adjacent properties; or
    - Cause property damage or injury to persons on or off the subject property.

Staff plans to address issues relating to structural shoreline stabilization in separate provisions.

As a result, the existing provisions of KZC Chapter 85 have been proposed to be incorporated into the SMP by reference to satisfy the Guidelines requirements. In

addition, the proposed provisions include a new definition of a geotechnical report which complies with the State Guideline's definition of what a geotechnical report must include, that contains some additional items that are not presently addressed in the report requirements outlined in KZC 85.15.

Proposed Regulations: The existing regulations as contained in Chapter 85 KZC have been referenced in the new shoreline regulations.

5. **Archaeological and Historic Resources** (see KZC 83.490 in Attachment 13)

Key Issues: None.

Background: The Guidelines addressing archaeological and historic resources are contained in WAC 173-26-221(1) and focus on:

- Requiring a stop work and notification provision if archaeological resources are uncovered during excavation; and
- Requiring site inspection or evaluation by a professional archaeologist if permits are issued in areas documented to contain archaeological resources.

Proposed Regulations: The proposed regulations address these requirements and also provide additional direction for site planning and interpretation of potential sites, as well as provisions relating to historic buildings and sites.

6. **Flood Hazard Reduction** (see KZC 83.480 in Attachment 13)

Key Issues: None.

Background: The City's shoreline contains floodplains associated with the mouth of Yarrow Creek in the Yarrow Bay wetlands and Forbes Creek. A floodway has also been identified within the Forbes Creek floodplain. The Guidelines addressing flood hazard reduction are contained in WAC 173-26-221(3) and focus on:

- Limiting new development within the channel migration zone or floodway;
- Limiting new structural flood hazard reduction measures, such as diking;
- Requiring public access in association with new publicly funded dikes or levees;
- Limiting removal of gravel for flood control, in consideration of potential for impacts.

Since the floodplains and floodway are contained within areas that are also predominately designated as critical areas (both wetlands and streams), the City's critical area regulations will satisfy many of these requirements, by:

- Limiting development, including flood hazard reduction measures, by imposing restrictions and buffer protections around the critical areas.
- Limiting removal of gravel to those circumstances where it is deemed to be part of a stream rehabilitation project.

The City's KMC 21.56 also contains provisions for flood damage prevention in KMC 21.56. These provisions satisfy many of the Guideline requirements by containing:

- Provisions addressing wetlands management, limiting activities that would disrupt the ability of wetlands to alleviate flooding impacts.
- Standards limiting encroachments, including fill, new construction, substantial improvements or other development in a floodway without certification by a registered professional engineer or architect demonstrating that the encroachments will not result in any increase in flood levels. KMC 21.56 also addresses existing development that may be located within floodways.
- Standards addressing subdivision proposals within special flood hazard areas, including standards to minimize flood damage and provide adequate drainage.
- Requiring any new construction located within designated special flood hazard areas to be designed pursuant to special standards to minimize impacts (e.g. vertical separation of habitable space from the level of the base flood elevation, flood proofing requirements, anchoring, etc.).

Proposed Regulations: The existing regulations as contained in KMC 21.56 have been referenced in the new shoreline regulations.

7. **Public Access** (see Attachment see KZC 83.370 in Attachment 13)

Key Issues: New location standards proposed for walkways and hours of operation.

Background: The City's existing SMP and shoreline zoning regulations contain provisions addressing public access that have resulted in the establishment of the City's waterfront trail system.

Proposed Regulations: The City's existing requirements would be used for the shoreline regulations with the following minor changes:

- Standards are proposed for the **location of the walkway**, including a requirement specifying separation from the ordinary high water mark. This separation is needed in order to protect the functions of the shoreline and provide adequate area for retention and/or installation of vegetation at the shoreline's edge. Staff anticipates that property owners may have concerns with this new requirement, as it generally will require pathways to be located further onto private property than many of the current installations.
- The existing requirements that a public pedestrian walkway be provided when an **Accessory Dwelling Unit (ADU)** is constructed as part of a single family use would no longer be required. In all other regulations, ADUs are treated the same as a single-family residence, and single family residences are exempt from providing public access. With this change, ADUs would be treated consistently.
- Elimination of the ability to **defer installation of the trail**. In the current shoreline regulations, the City could permit the walkway to be installed at a later time, for instance if properties to either side did not have an existing walkway.

Staff has concerns about the ability to effectively require installation of a pathway at a later date and recommend that the deferment option be eliminated.

- As a result of enforcement concerns, defined standards have been put into place addressing when the trails would be **open for public use**. Currently, the standard is from dawn to dusk, but these open ended hours have led to abuse by the public or limitation of use by property owners.

Planning Commission Direction: The Planning Commission has reviewed these provisions. There was interest in reviewing the provisions relating to the location of the shoreline walkway once more information was available on shoreline vegetation.

Public Input: Public access was rated as a top desirable aspect of Kirkland's waterfront. 85% identified public access (36%), Public Parks (26%) or walk ability (22%) as what they like best about Kirkland's waterfront

8. Shoreline Vegetation Management

Key Issues: The key issue with regard to shoreline vegetation management is what standards to apply for retention of existing vegetation, particularly trees. (Note: we will be discussing whether standards should be incorporated for shoreline vegetation within the shoreline setback as part of a mitigation strategy in future meetings).

Background: The Zoning Code presently contains tree regulations. These tree regulations presently allow 2 trees to be removed within a calendar year on a property not undergoing development, and require replacement if there are less than 2 trees on a property. Under these provisions, existing trees within the shoreline area may be removed, resulting in a loss of existing shoreline ecological function. The City could choose to incorporate the existing provisions or, alternatively, require additional protection of trees located within the shoreline area by treating the shoreline setback area in the same manner as a critical area. Under this approach, a significant tree located within the shoreline setback could not be removed, unless it was demonstrated to be a nuisance or hazardous tree.

The draft policies note the desire to limit tree clearing and thinning activities along the shoreline, noting that significant trees between structures and the shoreline should be preserved to the greatest extent feasible.

The current regulations will likely contribute to net reduction in ecological functions as trees are permitted to be removed.

The Guidelines addressing shoreline vegetation management are contained in WAC 173-26-221(5) and focus on:

- Vegetation conservation and restoration measures, aimed at protecting and restoring the ecological functions and ecosystem-wide processes performed by vegetation along the shoreline. A variety of measures can be used to achieve this objective, including clearing and grading regulations, setback or buffer standards, critical area regulations, requirements for specific uses, mitigation requirements, incentives and non-regulatory programs.

The existing SMP does not focus on the issue of shoreline vegetation and, as a result, this is a gap in our existing SMP provisions that needs to be addressed in the update. Staff plans to draft clearing and grading regulations, which will be brought forward at the next meeting, but would also like to discuss preliminary concepts for tree protection within the shoreline area.

Planning Commission Direction: The Planning Commission did not provide final recommendations on this issue, as it wanted the opportunity to consider what type of shoreline setbacks might apply before making any decisions on specific vegetation management provisions within these setbacks. In general, the Planning Commission supported the concept of replacement trees (removal of any tree should require replacement, but perhaps some flexibility in what the replacement vegetation could be).

Staff Recommendation: Regarding the tree retention standards, staff would recommend limiting removal of existing trees in the shoreline setback, except in those circumstances where the trees are posing a nuisance or hazardous situation. Staff would also recommend including standards for replacement trees (or alternative shoreline appropriate vegetation) as well as tree pruning.

9. Water Quality, Stormwater and Nonpoint Pollution (see KZC 83.430 in Attachment 13)

Key Issues: Standards addressing application of pesticides, herbicides, and fertilizers within the shoreline area.

Background: The Guidelines addressing water quality are contained in WAC 173-26-221(6) and focus on:

- Preventing impacts to water quality and storm water quantity.
- Consistency between the SMP and other regulations addressing water quality.

The existing SMP contains no specific regulations to address water quality, though there are provisions in place in the KMC that address water quality and storm water quantity City-wide.

Proposed Requirements: In response to this current gap in SMP provisions, staff is recommending new standards be adopted for water quality within the updated SMP. Proposed new standards would include:

- **References to requirements in City's adopted surface water design manual**. The Public Works Department is currently working on an amendment to the City's current design manual to adopt the 2005 Department of Ecology Surface Water Manual in 2009. This new manual has enhanced protection measures and a greater emphasis on low-impact development strategies.
- Requirements for the use of **Best Management Practices** (BMPs).
- Emphasis on use of **low-impact development techniques**.
- **Limitations on new outfalls** to Lake Washington.

- Standards for the use of **pesticides, herbicides, and fertilizers** within the shoreline.

Planning Commission Direction: In response to discussion about standards addressing application of pesticides, herbicides, and fertilizers in areas adjacent to Lake Washington and streams and wetlands that are part of the shoreline jurisdiction, the Planning Commission recommended that the new regulations include standards for pesticides, herbicides, and fertilizers application, in order to ensure that the pesticides, herbicides, and fertilizers are applied in a manner that minimizes their transmittal to adjacent water bodies. This could include limitations on aerial spraying, requirements for spot application or wicking, use of time-release fertilizers and herbicides, and compliance with federal and state standards. The draft regulations in 13 contain language responding to this recommendation.

In addition, the Planning Commission recommended that removal of aquatic vegetation, such as Eurasian milfoil, be allowed subject to the compliance with existing State regulations addressing this issue. The Department of Ecology has issued an Aquatic Plant and Algae Management General Permit covering aquatic plant and algae management activities that permits the discharge of chemicals and other aquatic plant and algae control products into surface waters of the state of Washington. Continue to work on this issue at a regional level with other Lake Washington jurisdictions

Public Input: Water quality and control of aquatic noxious weeds continue to be two areas of concern for SMP participants. While the concern over noxious weeds along the shoreline has been expressed by many, there may be differing recommendations for how the City should address this issue, including: allowing herbicide use, restricting herbicide use, and coordinating a City-response to this issue, as has been done in other Lake Washington communities such as Yarrow Point. Letters submitted by Mr. Richard Sandaas, a local shoreline property owner and member of the Shoreline Property Owners and Contractors Association (SPOCA), specifically address the issue of aquatic noxious weed control. In the web-survey, there was support expressed to restrict the use of herbicides and other maintenance practices that may be harmful to the environment (84% of respondents who indicated standards are needed), but there was not equal support among shoreline property owners to pursue this management technique.

10. View Corridors (see KZC 83.360 in Attachment 13)

Key Issues: Defining what public view these regulations should be trying to protect:

- The view to the ordinary high water mark/shoreline edge and Lake Washington, or
- The view to a portion of Lake Washington, but not necessarily to the shoreline edge.

Background: The City's existing SMP contains provisions requiring view corridors that have preserved view corridors along Lake Washington Blvd NE.

Proposed Regulations: The existing provisions are intended to continue under the updated SMP, with the following minor changes:

- **Clarifications on permitted encroachments within the view corridor** to address past issues that have arisen in administering the current regulations (i.e. at grade and subterranean parking). One of the issues that staff is requesting Houghton Community Council direction on concerns what public view these regulations should be trying to protect:
    - The view to the ordinary high water mark/shoreline edge and Lake Washington, or
    - The view to a portion of Lake Washington, but not necessarily to the shoreline edge.

    This could impact the types of allowed encroachments that should be permitted in the view corridor, such as vegetation, fences, trellis and other landscape features. It should be noted that the topography of the property, existing vegetation and improvements, and the parcel depth from the right-of way to the shoreline all are factors that affect the extent of the view from the right-of- way to the Lake.
- Additional standards providing direction on the **appropriate placement for the view corridor**.
- A new requirement for a **dedication for the view corridor**.

Planning Commission Direction: After reviewing the issues concerning what public view these regulations should be trying to protect, the Planning Commission recommended that the regulations address the view to a portion of Lake Washington, but not necessarily to the shoreline edge. The revised regulations address this recommendation.

Public Input: Public visual access to the shoreline is a significant asset and unique feature of Kirkland's shorelines.

11. **Parking** (see KZC 83.400 in Attachment 13)

Key Issues: None.

Background: The Guidelines addressing parking are contained in WAC 173-26-241(3)(k) and focus on limiting parking within the shoreline and minimizing the environment and visual impacts of parking.

Proposed Regulations: The City's existing SMP contains provisions addressing parking; the concepts from the existing regulations are carried forward to the new shoreline regulations, with clarifications on standards, as follows:

- New **prohibition on parking within the waterfront setback**, except for subsurface parking designed to meet certain standards;
- **Restrictions on parking extending closer to the shoreline** than the permitted structure; and
- **New design standards** for parking garage facades that may be face public pedestrian walkways, use areas, or parks.

12. **Miscellaneous Standards** (see KZC 83.390 in Attachment 13)

Key Issues: New standards addressing the design of water-oriented uses.

Background: Site Planning and Building Design standards are one mechanism that local jurisdictions can use to respond to the management policies established for the Urban Mixed shoreline environment.

Proposed Regulations: The proposed standards include provisions addressing screening of outdoor storage areas, rooftop appurtenances and garbage receptacles, glare and special standards for water-enjoyment uses to ensure that these uses are designed to facilitate enjoyment of the shoreline.

13. **Lighting** (see KZC 83.420 in Attachment 13)

Key Issues: New lighting standards applying to the shoreline jurisdiction.

Background: Lighting standards are one mechanism that local jurisdictions can use to respond to the management policies established for the shoreline environments. Recent studies have also yielded results indicating that urban light has altered predator prey interactions for fish in Lake Washington (Kitano et al. 2008). Presently, the existing shoreline program does not contain lighting standards, but the zoning standards do require that light fixtures be selected, placed and directed so that glare produced by any light source, to the maximum extent possible, does not extend to adjacent properties or to the right-of-way.

Proposed Regulations: Staff has proposed regulations addressing direct point source light pollution and glare onto Lake Washington, with special light level standards for protection of Lake Washington and areas in the Natural shoreline environment, where wildlife may be more sensitive to the impacts of light, as well as protection of residential properties from adjoining commercial development in residential shoreline areas. The proposed lighting standards also include provisions to address aesthetic concerns about light pollution along the shoreline, including direction and shielding requirements.

Staff is seeking Houghton Community Council direction on this section, in particular whether there is agreement that aesthetic issues should be addressed and, if so, what the triggers should be to require existing lighting that may not conform to these standards to come into compliance, such as a major addition or a major remodel. In order to evaluate lighting levels, the standards also include new requirements for lighting studies to be submitted to the City for review.

14. **Signage** (see KZC 83.410 in Attachment 13)

Key Issues: None.

Background: Sign standards are one mechanism that local jurisdictions can use to respond to the management policies established for the Urban Mixed shoreline environment. Existing zoning regulations already limit the use of electrical signs along portions of Lake Washington Blvd.

Proposed Regulations: New provisions are proposed to address signage in view corridors as well as signage that may be constructed over-water.

15. **In-water Activity** (see KZC 83.380 in Attachment 13)

Key Issues: None.

Proposed Regulations: Standards are proposed by staff to address many of the best management practices that should be used when constructing structures within water.

XI. PUBLIC COMMENTS

A summary of the public comments received to date is included in Attachment 19. Since the last Houghton Community Council meeting on the Shoreline Master Program update, the City has received 26 written comment letters (see Attachments 20-45). Please note that draft standards for shoreline stabilization and piers and docks, which are addressed in many of the letters, will be brought to the Houghton Community Council at the next meeting.

XII. ATTACHMENTS

1. Proposed Work Program
2. Display Boards from Public Open House
3. Summary of Public Open House Comments
4. Survey Results
5. UW Study of Lake Washington Shoreline Permitting Process
6. Draft Outline of the new SMP Chapter
7. Proposed Shoreline Environment Designation Maps
8. Shoreline Environment Designations
9. Revised Policy Language
10. Shoreline Environments, Permitted and Prohibited Uses and Activities Chart
11. Definitions
12. Summary Table of Key Changes to Shoreline Uses
13. Draft General Regulations (KZC 83.360-83.490)
14. Department of Ecology guidance on wetland regulations
15. Map depicting changes to wetland buffers
16. Information Sheet on Shoreline Update Process
17. Summary of Permitting Requirements for Shoreline Stabilization
18. Table analyzing Shoreline Environment Designation Criteria
19. Table Summarizing Public Comments
20. Public Comment Letter from Dave Douglas dated June 20, 2008
21. Public Comment Letter from Charlotte Jordan dated May 21, 2008
22. Public Comment Letter from Doug Pascoe dated May 23, 2008
23. Public Comment Letter from Robert Style dated May 23, 2008
24. Public Comment Letter from Harold Forsen dated May 21, 2008
25. Public Comment Letter from Dave Douglas dated July 2, 2008

26. Public Comment Letter from Dave Douglas dated July 31, 2008
27. Public Comment Letter from Dave Douglas dated August 22, 2008
28. Public Comment Letter from Richard Sandaas dated September 15, 2008
29. Public Comment Letter from Dave Douglas dated September 18, 2008
30. Public Comment Letter from Bill Wassmer dated September 18, 2008 and September 25, 2008
31. Public Comment Letter from Barry Powell dated September 26, 2008
32. Public Comment Letter from Richard Sandaas dated September 26, 2008
33. September 3, 2008 letter from Dave Douglas
34. September 9, 2008 letter from Bob Style
35. October 3, 2008 letter from Dave Douglas
36. October 9, 2008 letter from Tony Fassbind
37. October 9, 2008 letter from Jack Rogers
38. October 9, 2008 letter from Barry Powell
39. October 11, 2008 letter from Katherine Curry
40. October 13, 2008 letter from Bob Style
41. October 13, 2008 letter from Bob Style
42. October 15 and 21, 2008 letter from Bob Style
43. October 22, 2008 letter from Dave Douglas
44. October 22, 2008 letter from Dave Douglas
45. October 22, 2008 letter from Dr. Craig Smith

cc: File No. ZON06-00017, Sub-file #1

UPDATING KIRKLAND'S SHORELINE MASTER PROGRAM (SMP) Phases 3-6 Plan Preparation and Adoption November 12, 2008 Subject to Change			
Date[1]	**Meeting**	**Task**	**Consultant Present at Meeting**
July 2008		Send draft Master Program policies to Ecology for review	
September 11, 2008	Planning Commission Study	• Revisions to Shoreline Environment Designations • Shoreline Use Table • General Regulations (public access, parking, storm water, critical areas, miscellaneous standards) • Scope out options for other general regulations (e.g. shoreline vegetation)	Stacy Clauson and TWC
October 9, 2008	Planning Commission Study	• General Regulations (continued) • Regulations for shoreline uses • Scope out standards for shoreline modifications	Stacy Clauson and TWC
November 20, 2008	Planning Commission Study	• Shoreline stabilization	Stacy Clauson and TWC
November 24, 2008	Houghton Community Council Study	• Revisions to Shoreline Environment Designations • Shoreline Use Table • General Regulations (public access, parking, miscellaneous standards, critical areas, shoreline vegetation, storm water)	Stacy Clauson and TWC
December 2008	Planning Commission Study	• Standards for shoreline modifications (continued)	Stacy Clauson and TWC
December 2008	Houghton Community Council Study	• Regulations for shoreline uses • Standards for shoreline modifications	Stacy Clauson and TWC
December 2008		Send draft Shoreline Environment Designations,	

[1] Assumes one meeting per month, to be scheduled based upon agenda of Planning Commission meetings

		Map Folio and Shoreline Regulations[2] to DOE for review	
January 2009	City Council Check-In	Brief Council on draft SMP	City staff
February 2009	Planning Commission Study	• Shoreline Administration and Procedures • Restoration Plan and Implementation Strategy • Cumulative Impact Analysis • Revisit environment designations, policies and regulations if necessary	Stacy Clauson and TWC
February 2009	Houghton Community Council	• Shoreline Administration and Procedures • Restoration Plan and Implementation Strategy • Cumulative Impact Analysis • Revisit environment designations, policies and regulations if necessary	Stacy Clauson and TWC
February 2009		Staff sends draft Cumulative Impact Analysis[3] and Shoreline Restoration Plan[4] to DOE for review	
February/March 2009		Environmental review	City staff
March 2009	Public Workshop	Hold a public workshop prior to public hearings by PC and HCC	City staff
March 2009	Planning Commission Study	Planning Commission reviews remaining issues, addresses any feedback received from DOE based on reviews	Stacy Clauson and TWC
April 2009	Houghton Community Council Public Hearing	• HCC receives public comments • HCC directs changes to the drafts	Stacy Clauson and TWC
April 2009	Planning Commission Public Hearing	• PC receives public comments • PC directs changes to the drafts	Stacy Clauson and TWC
May 2009	Planning Commission Study	Planning Commission reviews remaining issues	Stacy Clauson and TWC
May 2009	Houghton Community Council	Draft Plan for final review Recommendation to City	Stacy Clauson and TWC

[2] Element of the City's Shoreline Master Program
[3] Element of the City's Shoreline Master Program
[4] Element of the City's Shoreline Master Program

		Council	
June 2009	Planning Commission Study	Draft Plan for final review Recommendation to City Council	Stacy Clauson and TWC
June - July 2009	City Council Study	City staff CC Study Sessions and local adoption of Draft SMP (Note: must notify DOE and CTED 60 days prior to adoption)	
To be determined	Department of Ecology	State conducts another comment period on the SMP	
TBD		State works with Kirkland to finalize SMP	

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Last Saved: Tuesday, November 18, 2008

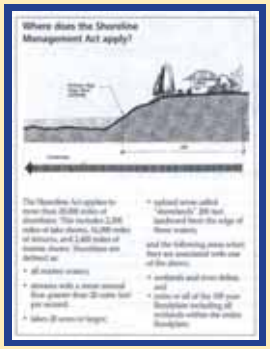
Shoreline Master Program Update

Key Concepts of the State's Shoreline Management Act

- Encourage water-dependent uses (e.g. marina)
- Protect shoreline natural resources
- Promote public access

Where Does the Shoreline Master Program Apply?

The Shoreline Master Program (SMP) applies to Lake Washington, land within 200 feet of Lake Washington's ordinary high water mark, and within wetlands connected to Juanita Bay and Yarrow Bay.



Source: Department of Ecology

SHORELINE ECOLOGICAL FUNCTION

Limiting habitat factors and impacts on Lake Washington

- The riparian shoreline of Lake Washington is highly altered from its historic state. Current and future land use practices all but eliminate the possibility of the shoreline to function as a natural shoreline to benefit salmonids;
- Introduced plant and animal species have altered trophic interactions between native animal species;
- The known historic practices and discharges into Lake Washington have contributed to the contamination of bottom sediments at specific locations;
- The presence of extensive numbers of docks, piers and bulkheads have highly altered the shoreline; and
- Riparian habitats are generally non-functional.

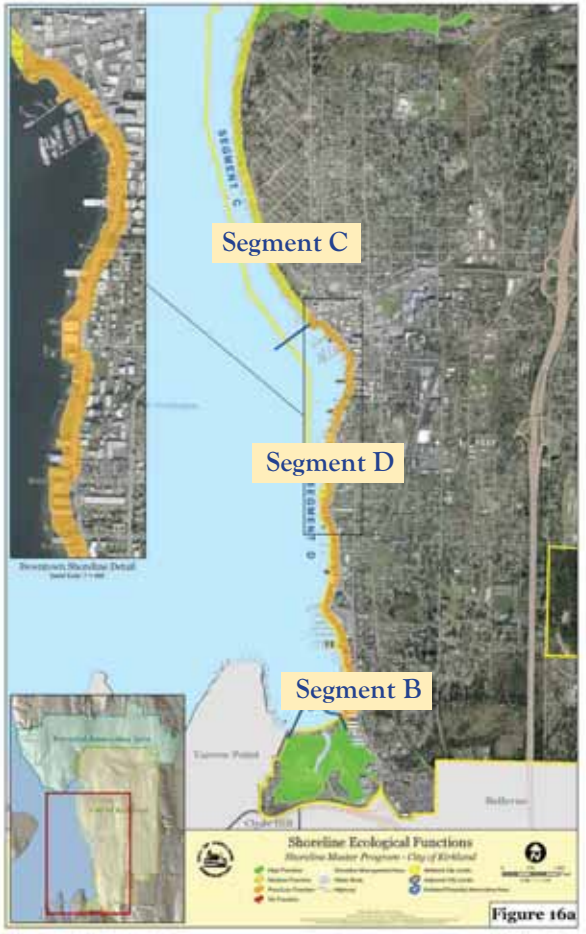
Source: Kervin, J. 2001. Salmon and steelhead habitat limiting factors report for the Cedar-Sammamish Basin (Water Resource Inventory Area 8.) Washington Conservation Commission. Olympia, WA

Kirkland Shoreline Ecological Function Scorecard		
Segment	Grade	Key Areas Needing Improvement
B Juanita Bay and Yarrow Bay Wetlands	High/Good	Improvements to fish passage and to mouth of Juanita Creek Improvements to overwater boardwalk at Juanita Beach Park Removal of invasive species
C Residential	Low/Poor	Improvements to nearshore vegetative cover Reduction or modification of shoreline armoring Reduction of overwater cover and in-water structures Reduction in impervious surface coverage
D Urban	Low/Poor	Improvements to nearshore vegetative cover Reduction or modification of shoreline armoring Reduction of overwater cover and in-water structures Reduction in impervious surface coverage

Segment B: Juanita Bay Wetlands

Segment C: Residential

Segment D: Marina Park



SHORELINE ARMORING

What is shoreline armoring:

- Shore erosion control practices using hardened structures that armor and stabilize the shore
  Examples: bulkheads, concrete walls, rip-rap

Segment	Lake Edge Condition (feet / % of segment)			Relative Ranking of Segment
	Vertical	Boulder	Natural / Semi-Natural	
B Juanita Bay and Yarrow Bay Park/ Wetlands	317 3%	461 4%	9,855 93%	High/Good
C Residential	4,919 53%	2,793 30%	1,652 18%	Low/Poor
D Urban	5,145 42%	5,831 48%	1,266 10%	Low/Poor
TOTAL (percent of total length)	10,381 32%	9,085 28%	12,773 40%	

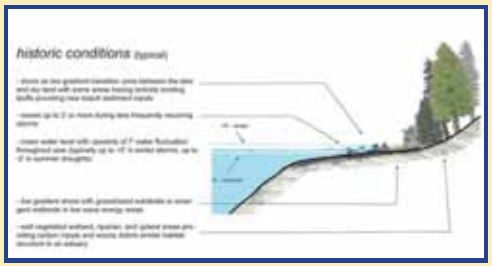
Juvenile Chinook Salmon Habitat needs:

- Shoreline areas with shallow depths (<1m)
- Gentle slope
- Fine substrates such as sand and gravel
- Overhanging vegetation/small woody debris
- Small creeks: mouths and shallow, low-gradient upstream portions

Impacts of shoreline armoring:

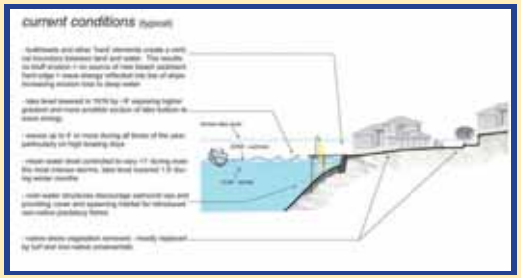
- Reduces natural gravel recruitment from erosion
- Causes excessive erosion on neighboring unarmored properties
- Can increase water depth by transporting nearshore sediment to deeper water and produces "wave bashing"effect – very turbulent nearshore
- Decreases habitat complexity
- Increases predator habitat (bass, sculpin)

Historical Shoreline



Graphic by Zach Thomas, University of Washington

Current Shoreline



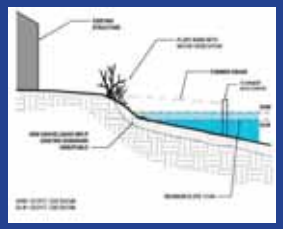
Graphic by Zach Thomas, University of Washington

THE WATERSHED COMPANY

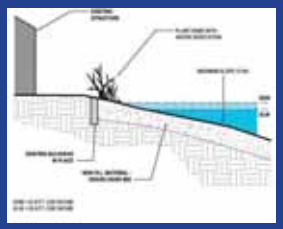
ALTERNATIVES TO SHORELINE ARMORING

These are recommendations developed by the Army Corps of Engineers and the National Marine Fisheries Service (NMFS) to provide for shoreline stabilization that will meet Endangered Species Act requirements under an Army Corps of Engineers Nationwide Permit. Other options require individual review and a project-specific assessment prepared by the applicant.

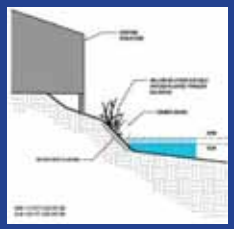
Alternative 1: Cut Beach, Place Gravel Fill and Re-vegetate



Alternative 2: Gravel Fill Beach and Re-vegetate



Alternative 3: Re-vegetate Armored Banks (only for bulkheads within 25 feet of residence)



Example of Shoreline Alternative Design in Bellevue, WA

Restoration Plan for Bellevue residence

Designed by The Watershed Company

Before

After

The Watershed Company

OVERWATER COVER

Segment	Overwater Coverage		Relative Ranking of Segment
	Overwater Cover/ Lineal Foot of Shoreline	# of Overwater Structures/Mile	
B Juanita Bay and Yarrow Bay Park/Wetlands	1.55 ft2	2.5	High/Good
C Residential	8.93 ft2	51.9	Low/Poor
D Urban	24.13 ft2	27.2	Low/Poor
TOTAL	12.3 ft2	26.2	

How do overwater structures such as piers affect the shoreline habitat?

- Impact the nearshore aquatic habitat, blocking sunlight and creating large areas of overhead cover.
- Shade the lake bottom and inhibit the growth of aquatic vegetation.
- Benefit non-native predators (like largemouth and smallmouth bass).
- Reduce the amount of complex aquatic habitat formerly available to salmonids rearing and migrating through Lake Washington. This can impact juvenile salmonids, in particular, due to their affinity to nearshore, shallow-water habitats.

Techniques to minimize impacts of overwater structures:

- 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 over-water structures (e.g. use of grated decking).
- Maximizing the height of piers above the water surface.
- Reducing the overall number and size of pier piles.
- Improving the quality of stormwater runoff.

SHORELINE VEGETATION

Benefits of Shoreline Vegetation

- Providing organic inputs critical for aquatic life
- Providing food in the form of various insects and other detritus that feeds benthic macroinvertebrates
- Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides
- Filtering and vegetative uptake of nutrients and pollutants from ground water and surface runoff
- Providing a source of large woody debris into the aquatic system
- Providing shade necessary to maintain the cool temperatures required by salmonids and other aquatic biota

Examples of Shoreline Vegetation

The Watershed Company

Berger Partnership

Waterfront Construction

THE WATERSHED COMPANY

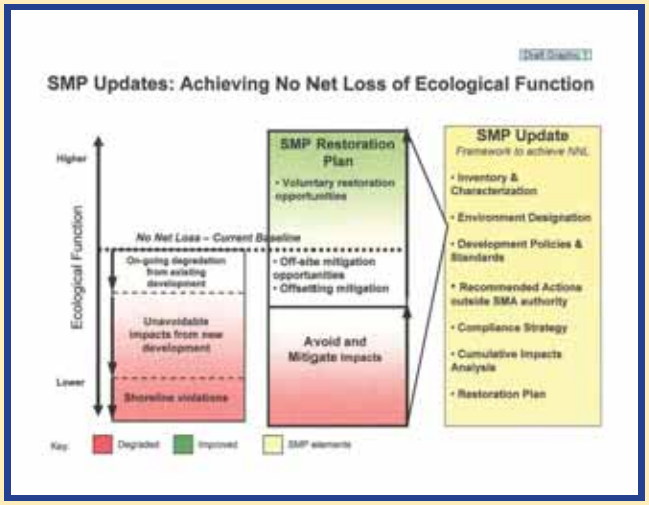
PUBLIC ACCESS AREAS

In shoreline jurisdiction, city currently has:

- 6.8 miles of trails
- 132.7 acres of parks and open space
- 2.5 miles of public waterfront access (trails and parks combined)

THE WATERSHED COMPANY

NO NET LOSS AND RESTORATION OPPORTUNITIES



Source: Department of Ecology

No Net Loss: The Shoreline Master Program should preserve the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state and protect 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.

Restoration: The Program should also promote restoration of ecological functions where such functions are found to have been impaired, enabling functions to improve over time.

CITY OF KIRKLAND DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

Updating the Shoreline Master Program

OPEN HOUSE

Monday, June 9th, 2008, 6:30 to 8:30 p.m.

SUMMARY

OF KEY THEMES, ISSUES AND CITIZENS' SUGGESTIONS

GOALS

These were the primary goals of the Open House sponsored by Kirkland's Department of Planning and Community Development:

1) Provide broad notice to property owners and other interested citizens of the City's Shoreline Master Program and opportunities available to engage in the process;
2) For participants to advise the City on what issues are of greatest interest and concern to them and, therefore, should be included in the update;
3) Identify the future vision of the waterfront in 25 years; and
4) For participants to prioritize key tools that the City should use in implementing the updated Shoreline Master Program.

WHO ATTENDED THE OPEN HOUSE?

In total 31 participants attended the Open House. Most participants identified themselves as waterfront property owners. Other attendees included Planning Commission members, and representatives from the local Audubon Society, a local waterfront construction contractor, and Washington Department of Natural Resources. Mayor Jim Lauinger opened the meeting.

THE AGENDA

To understand the process used at the open house, please see the agenda that is attached at the back of this document.

ISSUES TO ADDRESS IN THE SMP UPDATE

1. WHAT DO STAKEHOLDERS LIKE BEST ABOUT THE WATERFRONT NOW?

The participants who attended the open house said that they most value these qualities and characteristics of Kirkland's Lake Washington waterfront (there was no effort made to achieve consensus on these):

1. Natural areas
    a. Juanita and Yarrow Bays
    b. Vegetation & wildlife
    c. A natural "getaway" in an otherwise urban environment
2. Abundant public access points
3. Educational programs at Juanita Bay Park
4. Swimming
5. Water quality
6. Marina & Marina Park
7. Mixed-use
8. Walkability (public walkways along waterways)
9. Property rights protection
10. Use and planning of Juanita Beach Park- diversity of people using park

2. WHAT CONCERNS DO STAKEHOLDERS HAVE ABOUT KIRKLAND'S WATERFRONT NOW?

The participants who attended the Open House said that they have the most concerns about the following characteristics or management of Kirkland's Lake Washington waterfront (there was no effort made to achieve consensus on these):

1. Water quality
2. Salmon habitat viability
3. Funding
    a. Tax for Juanita Beach Park improvements
    b. Desire for user fees (for non-residents who use Kirkland's parks)
    c. Use money for land acquisition, not just programs or facilities
4. Naturalize waterfront
    a. Remove bulkheads
    b. Establish gravel waterfront w/ vegetation
5. Public access (acquiring new access points and preserving existing ones)
6. Need for clear definition of property rights
7. Increasing city ownership along waterfront
8. Non-native and invasive plant and wildlife species
9. Distance of motorcraft from shore (need no wake zones)
10. Increasing public information about distinction between parks and open space natural areas to prevent misunderstanding that Juanita Bay might be an active park
11. Wetland, stream, and stormwater runoff quality (draining to Lake Washington)

3. WHAT DO STAKERHOLDERS ENVISION THE SHORELINE TO BE IN 25 YEARS, IF THE CITY HAS BEEN SUCCESSFUL IN MANAGING KIRKLAND'S SHORELINES?

The participants who attended the Open House said in their future, the Kirkland shoreline has the following qualities and characteristics (there was no effort made to achieve consensus on these):

1. Wildlife conditions improved
    a. bird, aquatic life, and other wildlife diversity increased
    b. Resilient elodea
2. Milfoil controlled

3. More trees, in particular replacement of those lost to storms
4. Juanita Beach Park improved
5. Better access
6. Safer/healthier waterfront conditions
    a. Safe to swim
    b. Safe to eat fish
    c. Marine patrol to monitor boat speed
7. Pollution controlled
    a. Trash from boaters and/or waterfront property owners decreased
    b. Polluted stormwater runoff decreased
8. More City-owned waterfront parks
9. More handicapped accessibility
10. "Lid" (cover) on the Marina Park parking lot, with additional public amenities on the lid
11. Enhanced security at City parks (decreased vandalism, esp. along public access)
12. Overall improved water quality
13. Moorage for public at Marina Park
14. In Juanita Bay in particular, improved water quality, reduced garbage, and prohibition on jetskis/boats which disturb area wildlife with noise
15. Better signage (boats required to stay *"x"* feet from shoreline, speed limits)
16. Balance between property owner benefits and public benefits
17. Sewer hook-ups (for properties draining to Lake Washington)
18. Ferry service
19. More green space

4. WHAT TOOLS SHOULD THE CITY USE TO HELP APPROPRIATELY MANAGE EXISTING AND FUTURE SHORELINE DEVELOPMENT?

Participants were provided three (3) stickers and asked to place one at each of the management tools they feel the City should focus its attention. This exercise provided a prioritization of the tools, which are listed below:

1. Installing capital improvements on City-owned property such as retrofitting bulkheads at city parks (19 stickers)
2. Providing incentives to property owners who enhance shoreline areas such as expedited permit review and reduced fees (15)
3. Allowing flexibility in development standards such as reduced setbacks (14)
4. Acquiring City-owned property along the shoreline (12)
5. Adopting regulations such as requiring vegetation management for new home or pier construction (7)
6. Providing more information on shoreline protection (N/A - not listed as option)

Citizens also identified these additional ideas:

- Protecting property rights rather than eroding them (12 stickers)
- Giving environmental protection priority over recreation or property ownership (1)
- Keeping a tough standard on setbacks, not allowing flexibility (1)

WHAT OTHER ISSUES WERE IDENTIFIED OUTSIDE THE SCOPE OF THE FACILITATED DISCUSSION?

Issues that participants expressed during the facilitated discussion that were not within the scope of the conversation were recorded and listed below:

7. Storm water runoff reduction- from streets and properties uphill from lake
8. Pedestrian safety/ traffic congestion reduction along Lake Washington Boulevard
9. Increased marine patrol (police patrol boat(s))
10. Noise issues (specifically regarding personal watercraft operating in Juanita Bay) noise carries up hill and can be heard a distance from the lakefront.
11. Septic issue: wanting septic systems to be shut down and convert/tie in to wastewater system; especially concerning the contamination of Juanita Creek from upstream properties on septic
12. User fees for non-Kirkland residents to use city parks

SHORELINE MASTER PROGRAM UPDATE

Community Open House
Monday, June 9th

Agenda

6:30 – 7:30 PM – OPEN HOUSE

Please sign-in, review background information and display boards, ask questions of available staff, meet other attendees, complete a survey, and enjoy a refreshment or snack.

I. **WELCOME, INTRODUCTIONS – 6:45 PM**
Mayor Lauinger

II. **OVERVIEW MEETING FORMAT AND GOALS – 7:00 PM**
Marie Stake, Communications Manager

7:30 – 8:30 PM – VISIONING EXERCISE
Marie Stake, Communications Manager

III. What do you like best about the waterfront now?
IV. Imagine that it is the year 2033 (25 years from now). How will we know if we've been successful in managing Kirkland's shorelines?
V. What concerns you most about Kirkland's waterfront now?
VI. What tools should the City use to help appropriately manage existing and future shoreline development?
VII. Summarize key themes from tonight's meeting.

8:30 PM – ADJOURN
Thank you for participating! Please continue to stay involved.

CITY OF KIRKLAND DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

Updating the Shoreline Master Program
COMMUNITY SURVEY

SUMMARY OF KEY THEMES, ISSUES AND CITIZENS' SUGGESTIONS
July 2008

INTRODUCTION

The City of Kirkland completed this survey to assess citizens' thoughts and opinions about the quality of and vision and priorities for Kirkland's shorelines. Specifically, the following subjects were addressed:

- Respondents' general sense of Kirkland's shorelines, including the best and least desirable aspects.
- The importance of protection of shoreline ecological functions, public access, and priorities for the future.
- Respondents' priorities for different regulatory and incentive approaches to addressing future development along the shoreline.
- Respondents' reaction to different activities to facilitate restoration along the shoreline.

This report begins with an overview of key findings. These are followed by a summary of the questionnaire and the results in charts.

METHODS

PARTICIPATION: 59 respondents. Many of the respondents did not answer every question. Three out of the 59 surveys were left completely blank except for the comments section and contact information. Those 3 surveys are not included in the tallies, so each table/chart reflects the answers from the 56 completed surveys.

RESPONDENT PROFILE: 13 of the 59 respondents identified themselves as owning property along Kirkland's waterfront. In order to draw comparisons between shoreline property-owners and non-shoreline property owners, the answers from the waterfront property owners are sometimes shown beneath the totals.

TECHNIQUE: Web-survey and survey distributed to participants in June 9, 2008 Open House

DATES: June 9 – July 11, 2008

OPEN-ENDED ITEMS A number of the questions were open-ended, allowing the respondent to express answers in his/her own words. Responses to open-ended questions were summarized, then categorized and coded for analysis.

NOTE: Participation in this survey was voluntary. The survey is not intended to represent a scientifically accurate sampling of the citizens of Kirkland. These results can be interpreted only as representing the answers given by these respondents to these questions.

KEY FINDINGS

1. Differences in perceptions were identified between property owners and other respondents.
    - In general, property owners were, as a group:
        1. Less concerned about protection of ecological functions.
        2. Expressed a desire for site planning regulations, such as setbacks or lot coverage, to stay the same or become more flexible.
        3. Unsupportive of new standards for pier size, shoreline vegetation and maintenance, and bulkheads.
        4. More willing to consider flexible standards for owners who accommodate enhancement.
2. Public access was rated as a top desirable aspect of Kirkland's waterfront.
    - 85% identified public access (36%), Public Parks (26%) or walk ability (22%) as what they like best about Kirkland's waterfront
3. Respondent's concerns are mainly about growth and overdevelopment along Kirkland's shorelines.
    - 31% identified overdevelopment as a concern along Kirkland's shoreline
4. Over half of all respondents identify protection of shoreline ecological functions (57%) and providing public access (64%) as very important goals.
5. Respondent's rated the protection of functioning habitats as the top priority for Kirkland to focus its attention on for its waterfront, followed by preventing stormwater runoff and restoring degraded habitats.
6. There was strong lack of support (64%) expressed for establishing any water-based aircraft facilities within Kirkland's waterfront commercial business districts.
7. Over half of respondents indicated that standards should become more restrictive on structure placement along the shoreline (e.g. setback further from the water's edge and designed to cover less area on a lot).
8. Over 67% of respondents indicated that the City should provide standards for new or renovated piers that would minimize impacts to aquatic habitat. Asked to respond to different approaches, there was generally strong support expressed for the options presented, which included:
    - Requiring new piers or additions to incorporate design features that accommodate salmon and other aquatic species (79% of respondents indicated standards are needed).

- Requiring replacement piers to incorporate design features that accommodate salmon and other aquatic species (74% of respondents indicated standards are needed).
- Encouraging the construction of fewer piers (66% of respondents indicated standards are needed).

9. Over 76% of respondents indicated that the City should provide standards for shoreline vegetation and maintenance. Asked to respond to different approaches, there was generally strong support for the options presented, which included:
    - Restrict the use of herbicides and other maintenance practices that may be harmful to the environment (84% of respondents indicated standards are needed).
    - Encouraging the use of native plantings and limitations on herbicide use through the use of incentives, technical assistance and resource and education materials (74% of respondents indicated standards are needed).
    - Require native plantings along the shoreline edge and limit extensive areas of lawn in the area adjacent to the lake (58% of respondents who indicated standards are needed)
10. Over 65% of respondents indicated that the City should provide standards for bulkheads and other hard armoring. Asked to respond to different approaches, there was strong support for the following two options presented:
    - Prohibit the establishment of new bulkheads of other hard armoring, unless necessity is demonstrated and alternative methods are demonstrated to not be feasible or sufficient (76% of respondents indicated standards are needed).
    - Require new development of substantial remodel of existing development to remove existing bulkheads and replace these structures with a suitable shoreline stabilization solution involving native vegetation, logs, and beach reestablishment (62% of respondents indicated standards are needed).

    There was less support expressed for allowing existing bulkheads to remain with new constructionand more support to require enhancement of the shoreline with vegetation or other measures (46% of respondents indicated standards are needed).
11. In evaluating different activities that the City could pursue to facilitate habitat restoration activities, there was greatest support for the following:
    - Restoration activities in parks (80%)
    - Technical assistance for owners who accommodate enhancement (64%)
    - Grants for large restoration projects (57%)
    - Incentives for owners who initiate enhancement (52%)
    - Reduction/waiver of fees for owners who initiate restoration or preservation (52%)

The respondents were fairly split between those that supported (38%) and those that opposed (30%) the use of flexible standards for owners who accommodate enhancement.

SUMMARY OF RESULTS

1. **What do you like best about Kirkland's waterfront?**

53 respondents provided 30 unique responses to this question.

The top 10 responses were:

- Public access – 19 respondents
- Parks – 14
- Walkability – 12
- Open space – 8
- Views – 7
- Beaches – 4
- Wildlife – 3
- Marina – 3
- Beauty/Aesthetics – 3
- Limited/Low Development – 3

The other responses were:

- Shoreline – 2 respondents
- Charm/quaintness – 2
- Grass – 2
- Natural areas – 2
- Quiet/peacefulness – 2
- Water – 2
- Swimming - 1
- Property-owner rights - 1
- Safety - 1
- Livability - 1
- Juanita Bay - 1
- Juanita Beach - 1
- Recreation opportunities - 1
- Canoeing - 1
- Restrooms - 1
- Kid-friendliness - 1
- Downtown - 1
- Restoration efforts - 1
- Acquisition of public land - 1
- Handicapped Accessibility - 1

2. **When you think about Kirkland's shorelines, what concerns you the most?**

49 respondents provided 33 unique responses to this question. The top 10 responses were:

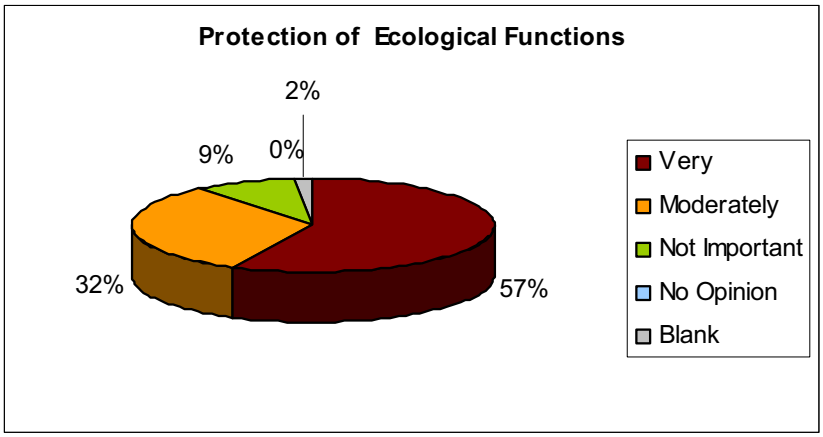
- Overdevelopment – 15 respondents
- Pollution/runoff – 7
- Artificial shoreline/bulkheads – 7
- Loss of public access- 7
- Water quality – 4
- Shoreline degradation/erosion – 4
- Noise – 4
- Animal waste – 3
- Business/commercial interests – 3
- Parking – 3

The other responses were *)*:

- Health – 2
- Congestion/overcrowding – 2
- Loss of walkability – 2
- Traffic – 2
- Restoration - 1
- No wake zone - 1
- Quality of public areas - 1
- Fertilizers - 1
- Environmental quality - 1
- Juanita Beach - 1
- Juanita Bay - 1
- Dock conditions - 1
- Dogs - 1
- Misuse of private space - 1
- Preserving open space - 1
- Homeowner rights - 1
- Battle between waterfront-owners and non-waterfront owners - 1
- Loss of natural habitat - 1
- Dangerous pedestrian crossings - 1
- Invasive species - 1
- Wildlife population - 1
- Human impact - 1
- Wetlands - 1

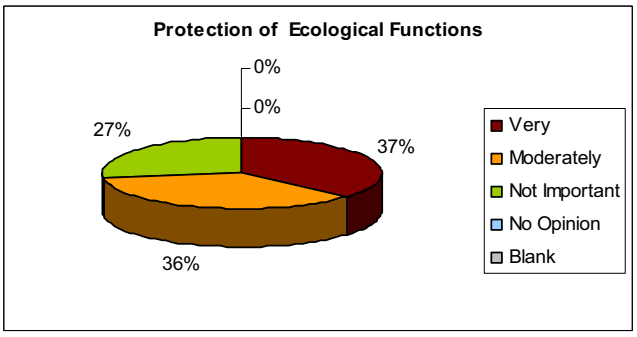
3. **Protection of shoreline ecological functions (i.e. habitat for fish and wildlife, attenuation of wave energy, filtering excessive nutrients or sediments and bank stabilization) is a goal of the Shoreline Management Act. How important is this to you?**

Very	Moderately	Not Important	No Opinion	Blank
32	18	5	0	1



Waterfront Property Owners' responses:

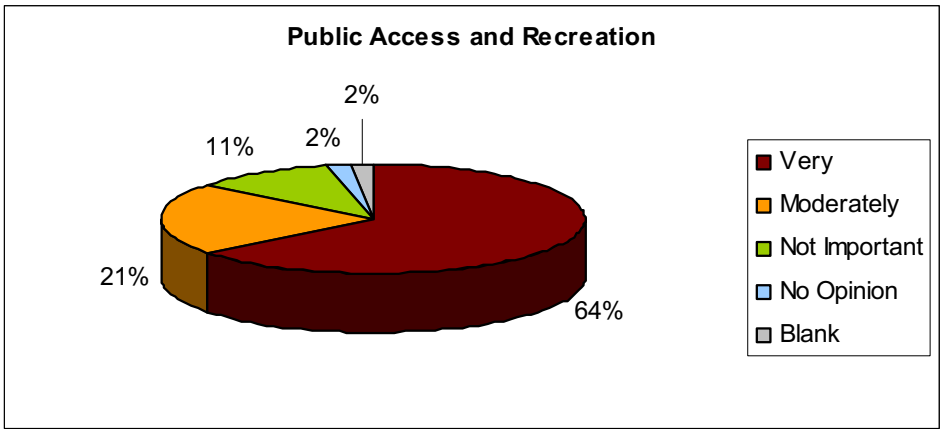
Very	Moderately	Not Important	No Opinion	Blank
4	4	3	0	0



4. **Providing public access to the water and enhancing recreation is a goal of the Shoreline Management Act. How important is this to you?**

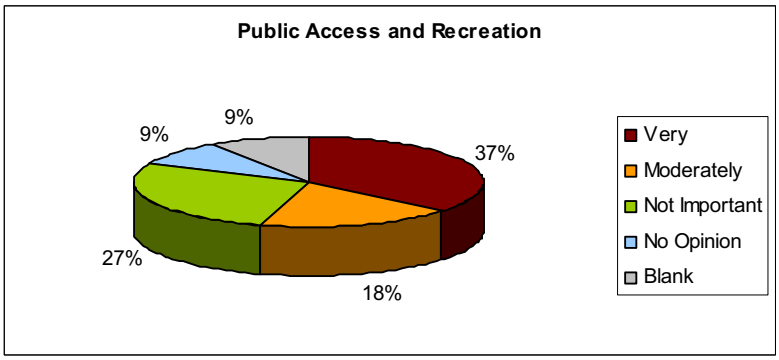
Very	Moderately	Not Important	No Opinion	Blank

36	12	6	1	1



Waterfront Property Owners' responses:

Very	Moderately	Not Important	No Opinion	Blank
4	2	3	1	1



5. **Please tell us what areas Kirkland should focus its attention on for its waterfront. Rate the following choices as your highest priority (1) to lowest priority (6).**

Score	1s	2s	3s	4s	5s	6s	Blank	Average
Public Access	14	6	5	6	17	6	2	3.4
Waterfront-dependent uses	5	8	1	8	12	21	1	4.4
Protect Functioning Habitats	25	13	6	8	0	2	2	2.1
Restore Degraded Habitats	5	14	18	6	5	6	2	3.2
Prevent Stormwater	8	15	15	10	4	3	1	2.9

Runoff								
Education and Incentives	3	2	7	13	10	20	1	4.5

Overall Rankings:

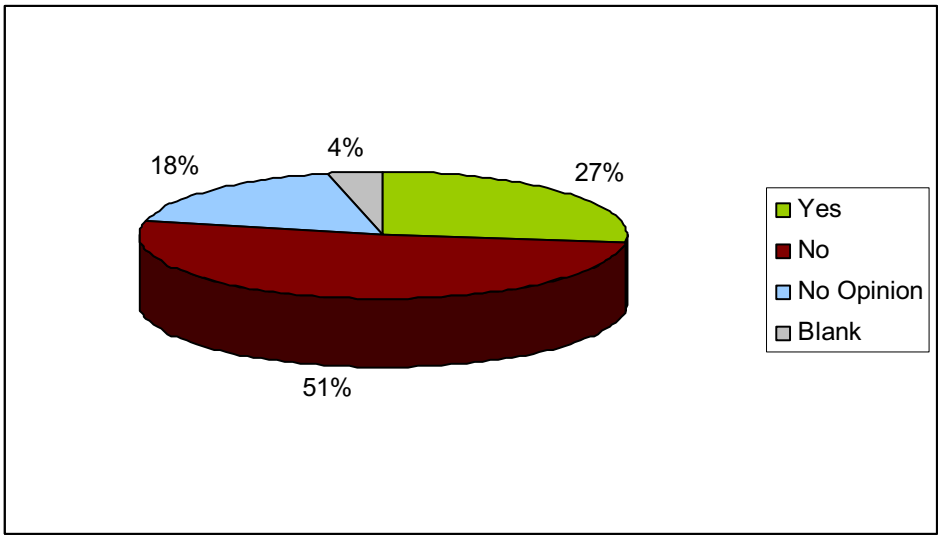
	Rank	Average
Protect Functioning Habitats	1	2.1
Prevent Stormwater Runoff	2	2.9
Restore Degraded Habitats	3	3.2
Public Access	4	3.4
Waterfront-dependent uses	5	4.4
Education and Incentives	6	4.5

Waterfront Property Owners Rankings:

	Rank	Average
Prevent Stormwater Runoff	1	2.3
Protect Functioning Habitats	2	2.4
Waterfront-dependent uses	3	3.1
Restore Degraded Habitats	4	3.2
Education and Incentives	5	4
Public Access	6	4.2

6. **Are there types of businesses or services that you would like to see, which do not currently occur along the City's waterfront?**

Yes	No	No Opinion	Blank
15	29	10	2



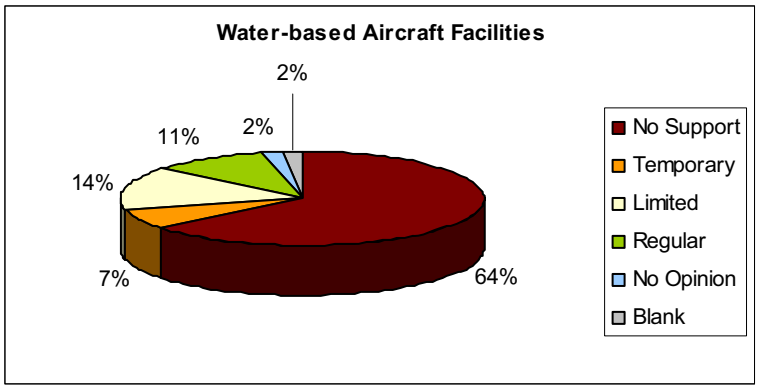
7. **If YES, what uses and why are those needed?**

The 15 affirmative responses provided a total of 10 unique answers:

- Boat rental – 4 respondents
- Food/restaurants – 4
- Marina services – 3
- Recreational services – 2
- Float planes
- Bookstore
- Movie theatre
- Dog park
- Water taxi
- Nature center

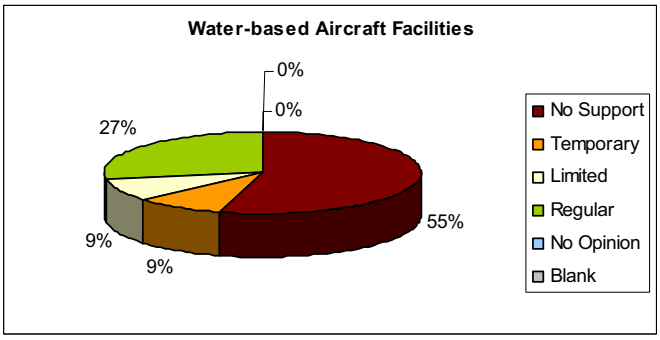
8. **Kirkland's waterfront business districts, such as Downtown or Carillon Point, are active community areas. As a result, the City anticipates that there may be future interest in establishing water-based aircraft facilities (e.g. floatplane operations) within these waterfront commercial districts. Which of the following best represents your opinion?**

No Support	Support temporary moorage for personal use	Support limited facilities for air charter operations	Support regularly scheduled commercial flights	No Opinion	Blank
36	4	8	6	1	1



Waterfront Property Owners' responses:

No Support	Support temporary moorage for personal use	Support limited facilities for air charter operations	Support regularly scheduled commercial flights	No Opinion	Blank
6	1	1	3	0	0



9. **What natural features (such as streams, wetlands, forests) of Kirkland's shorelines should be protected and/or restored?**

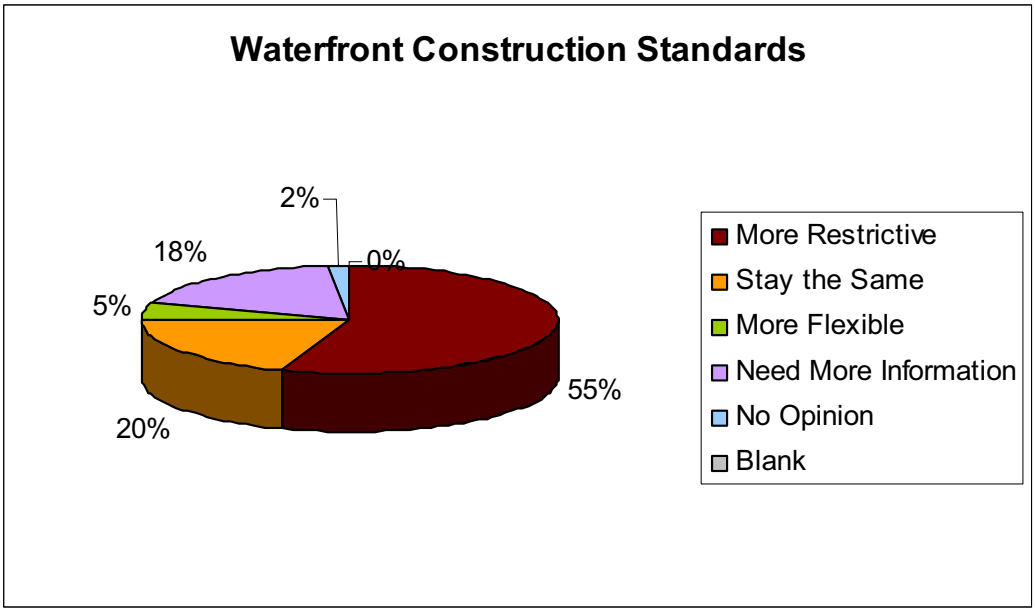
42 respondents to this question provided 17 unique answers to this question:

- All/as many as possible – 18 respondents
- Streams – 9
- Wetlands – 7
- Forests – 5
- Juanita Bay – 4
- Wildlife habitats – 3
- Shoreline – 2

- Brush
- Aquatic life
- Watersheds
- Parks
- Juanita Creek
- Juanita Beach
- Native plants
- Trees
- Beaches

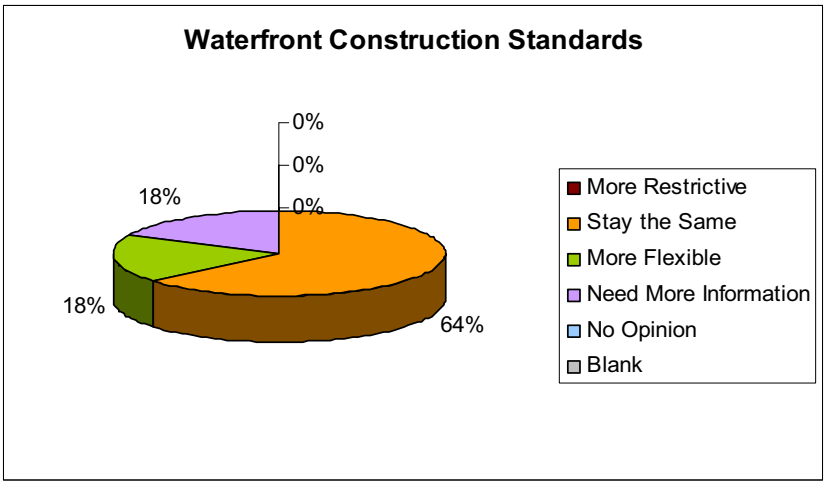
10. **Along the shoreline area, Shoreline Master Program regulations address issues such as how close structures can be to the water's edge, lot coverage, open space and the separation between structures. In your opinion, should the rules governing construction along the waterfront be changed? (Please choose one response).**

Standards should be more restrictive (e.g. set back farther from the water's edge and other structures on adjacent lots, and designed to cover less area on a lot)	Stay the Same	Allow for more Flexibility (e.g. locate closer to the water's edge and other structures on adjacent lots, and increase the area allowed to be covered on a lot)	Need More Information	No Opinion	Blank
31	11	3	10	1	0



Waterfront Property Owners' responses:

Standards should be more restrictive (e.g. set back farther from the water's edge and other structures on adjacent lots, and designed to cover less area on a lot)	Stay the Same	Allow for more Flexibility (e.g. locate closer to the water's edge and other structures on adjacent lots, and increase the area allowed to be covered on a lot)	Need More Information	No Opinion	Blank
0	7	2	2	0	0



11. **Large piers have the potential to impact the nearshore aquatic habitat, by blocking sunlight and creating large areas of overhead cover which shade the lake bottom and inhibit the growth of aquatic vegetation. These changes in the nearshore habitat have been identified as posing potential adverse impacts to juvenile salmon that rear in and migrate through Lake Washington.**

    Do you think the City should provide standards for new or renovated piers in response to this issue, consistent with state and federal guidance?

Yes	No	Need More Information	No Opinion	Blank
38	10	7	1	0

Waterfront Property Owners' responses:

Yes	No	Need More Information	No Opinion	Blank
2	8	1	0	0

12. **If you answered "Yes" above, which of the following standards would you recommend (Check any that apply):**

Provide Standards on Pier Size and Cover	
Standards should encourage the construction of fewer piers (i.e. shared use of piers).	25
Standards should require new piers or additions to piers to incorporate design features that accommodate salmon and other aquatic species (i.e. minimizing the size and widths of piers and floats, increasing light transmission through over-water structures)	30
Standards should require replacement piers to incorporate design features that accommodate salmon and other aquatic species (i.e. minimizing the size and widths of piers and floats, increasing light transmission through any over-water structures)	28

13. **Native or other appropriate vegetation on the shoreline has a number of benefits to lakes and lake associated wildlife, including water quality (sediment and pollution removal), bank stabilization, shade and temperature moderation, fish and wildlife habitat, and productivity (food sources such as insects and smaller organic debris). Do you think the City should provide standards for shoreline vegetation and maintenance?**

Yes	No	Need More Information	No Opinion	Blank
43	7	5	0	1

Waterfront Property Owners' responses:

Yes	No	Need More Information	No Opinion	Blank
3	6	1	0	1

14. **If you answered "Yes" above, which of the following standards would you recommend (Check any that apply):**

Provide Standards on Shoreline Vegetation and Maintenance	
Standards should require native or other appropriate plantings along the shoreline edge and limit extensive areas of lawn in the area adjacent to the lake with new development or substantial remodel of existing development.	25
Standards should restrict the use of herbicides and other maintenance practices that may be harmful to the shoreline environment.	36
Standards should encourage the use of native plantings and limitations on herbicide use through the use of incentives, technical assistance and resource and education materials.	32

15. **Bulkheads and other hard armoring of the shoreline have been shown to have a variety of negative impacts on natural processes including increased erosion of other properties, reduced vegetation and aquatic habitat function, and introduction of habitat for non-native predator species. Do you think the City should provide standards for bulkheads and hard armoring in response to this issue?**

Yes	No	Need More Information	No Opinion	Blank
37	7	11	0	1

Waterfront Property Owners' responses:

Yes	No	Need More Information	No Opinion	Blank
2	5	3	0	1

16. **If you answered "Yes" above, which of the following standards would you recommend (Check any that apply):**

Provide Standards on Bulkheads and Hard Armoring	
Standards should prohibit the establishment of new bulkheads or other hard armoring, unless necessity is demonstrated and alternative methods are demonstrated to be not feasible or not sufficient	28
Standards should require new development or substantial remodel of existing development to remove existing bulkheads and replace these structures with a suitable shoreline stabilization solution involving native vegetation, logs and beach re-establishment	23
Standards should allow existing bulkheads to remain with new construction, but require enhancement of the shoreline with vegetation or other measures.	17

Comparison between proposed standards:

	Yes	No	Need More Information	No Opinion	Blank
Provide Standards on Pier Size and Cover	38	10	7	1	0
Provide Standards on Shoreline Vegetation and Maintenance	43	7	5	0	1
Provide Standards on Bulkheads and Hard Armoring	37	7	11	0	1

Waterfront Property Owners' responses:

	Yes	No	Need More Information	No Opinion	Blank
Provide Standards on Pier Size and Cover	2	8	1	0	0
Provide Standards on Shoreline Vegetation and Maintenance	3	6	1	0	1
Provide Standards on Bulkheads and Hard Armoring	2	5	3	0	1

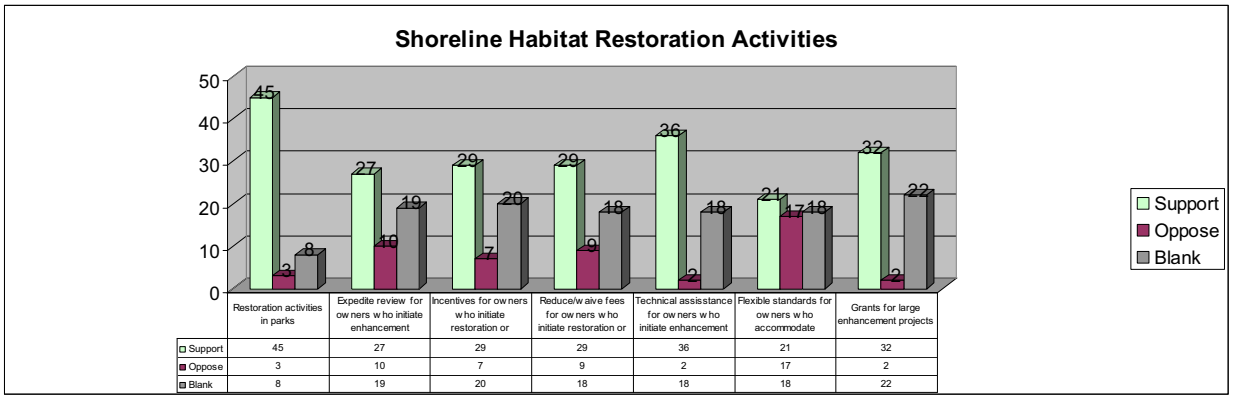
17. **To facilitate shoreline habitat restoration activities, which of the following would you SUPPORT/OPPOSE the City to explore?**

Activity	Support	Oppose	Blank
Undertake restoration activities in existing parks (i.e. reduce bank hardening, install overhanging riparian vegetation, replace bulkheads with sand beaches and gentle slopes, and minimize overwater coverage)	45	3	8
Provide a reduced review time/expedited review for shoreline property owners who initiate enhancement projects on their property	27	10	19
Provide financial incentives (e.g. participation in a Public Benefit Rating System that could reduce land assessments) for shoreline property owners who initiate restoration projects or preserve a natural shoreline on their property.	29	7	20
Reduce or waive fees for shoreline property owners who initiate enhancement projects on their property	29	9	18
Provide technical assistance for shoreline property owners who initiate enhancement projects on their property	36	2	18
Provide flexibility in some development standards for shoreline property owners who accommodate enhancement projects on their property	21	17	18
Pursue grant funding or other opportunities for larger restoration projects	32	2	22

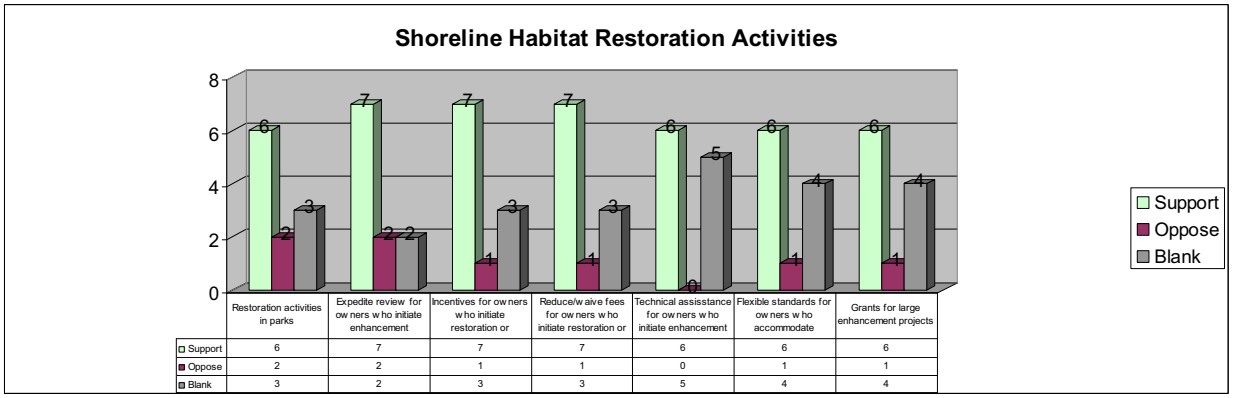
Waterfront Property Owners' responses:

Activity	Support	Oppose	Blank
Undertake restoration activities in existing parks (i.e. reduce bank hardening, install overhanging riparian vegetation, replace bulkheads with sand beaches and gentle slopes, and minimize overwater coverage)	6	2	3
Provide a reduced review time/expedited review for shoreline property owners who initiate enhancement projects on their property	7	2	2
Provide financial incentives (e.g. participation in a Public Benefit Rating System that could reduce land assessments) for shoreline property owners who initiate restoration projects or preserve a natural shoreline on their property.	7	1	3
Reduce or waive fees for shoreline property owners who initiate enhancement projects on their property	7	1	3
Provide technical assistance for shoreline property owners	6	0	5

who initiate enhancement projects on their property			
Provide flexibility in some development standards for shoreline property owners who accommodate enhancement projects on their property	6	1	4
Pursue grant funding or other opportunities for larger restoration projects	6	1	4

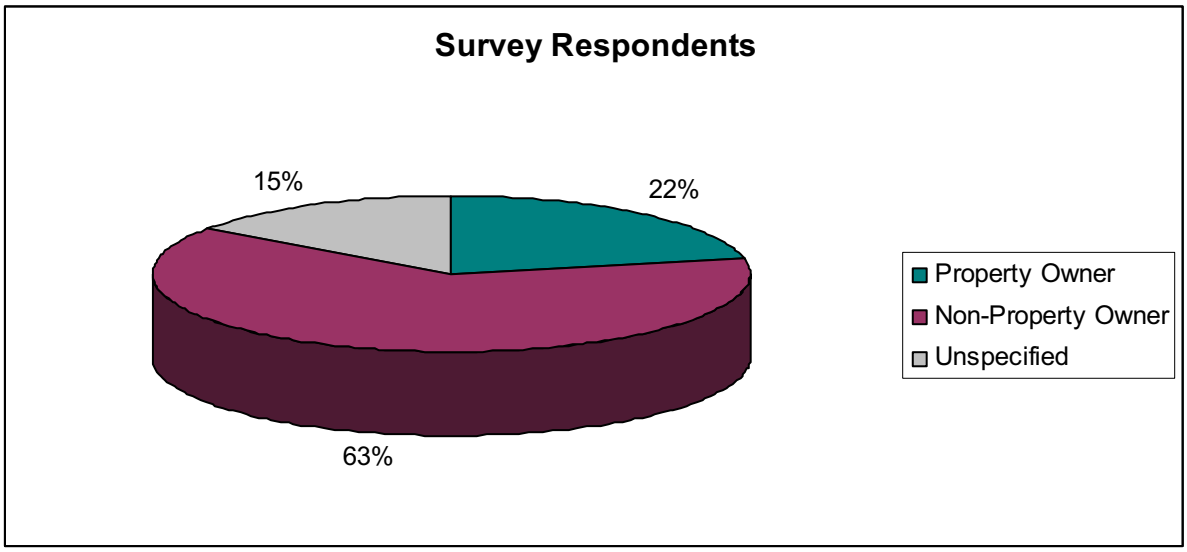


Waterfront Property Owners' response graph:



18. **Do you own property along Kirkland's waterfront?**

Waterfront Property Owner	Non-Waterfront Property Owner	Unspecified
13	37	9



19. **I am primarily interested in the Shoreline Master Program because I am (check all that apply):**

Interested in SMP because…	
Shoreline property owner	13
Interested citizen	37
Interested in environmental quality	32
Recreational boater	10
Interested in public access/parks	33
Business interest	3
Other	4

20. **The best way to keep me informed is by**

Keep me informed by…	
Mailings	5
Website	16
E-mail	31
Public meetings	5
Newspapers and other media	15
Other	1

2007-2008

Lake Washington Shoreline Permitting Process Study

Lake Washington Shoreline Team:
Lindsay Chang, Seth Ballhorn, Kelly Stumbaugh, and Martin Valeri
Environmental Management Graduate Certificate Program,
University of Washington

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Executive Summary: Lake Washington Shoreline Permitting Process Study

A summary of key findings and recommendations for improving Lake Washington shoreline permitting processes

Who is the Lake Washington Shoreline Team?

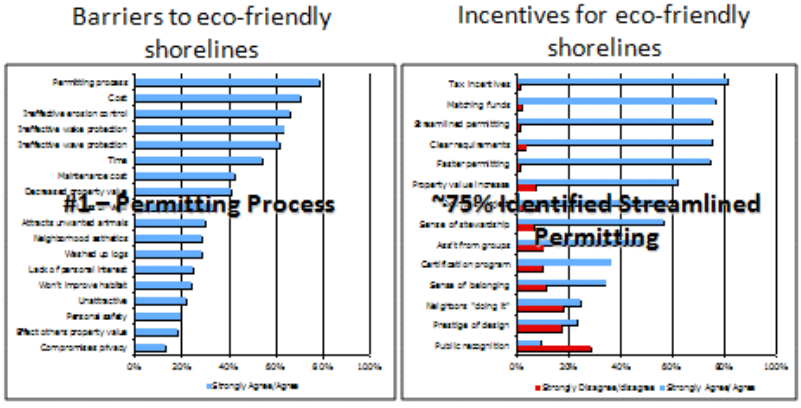
We are an interdisciplinary group of graduate students enrolled in the University of Washington's Environmental Management Certificate Program and represent four different graduate schools at the university. During the 2007-2008 academic year we performed a study of the Lake Washington Shoreline Permitting Process.

Study Rationale

The physical and ecological function of Lake Washington has been drastically altered by humans over the last century. The Cedar River was redirected to flow into Lake Washington. With this alteration, migrating Puget Sound Chinook Salmon (a threatened species under ESA protection) now utilize Lake Washington as juvenile rearing grounds. Optimal rearing grounds for juvenile salmon, characterized by a low gradient of sand or gravel, overhanging vegetation along the water's edge, nearshore logs and woody debris, nearby wetlands, and the absence of large objects over the water that create dark shaded areas are sparsely present on Lake Washington's shorelines. Over 70% of Lake Washington's shoreline is retained by bulkheads and riprap owned primarily by single-family residential landowners.

The Permitting Process as a Barrier and Incentive

In 2006-2007 a University of Washington Environmental Management Certificate Group called the 'Fish Friendly' group surveyed Lake Washington private landowners to identify barriers to and incentives for the implementation of eco-friendly shoreline designs. Survey participants identified the permitting process as the top barrier to implementing eco-friendly shorelines. Approximately 75% of shoreline landowners identified streamlining the permitting process as a potential incentive for implementing eco-friendly shorelines.



The Project Goal and Objectives

Goal: encourage Lake Washington landowners to implement eco-friendly shorelines

Project Objectives:

- Perform a policy analysis of the permitting process for Lake Washington residential shoreline projects
- Create end products that can be used to promote eco-friendly shorelines on Lake Washington

Study Methods

Twenty-seven in-person interviews were conducted with permit issuers (local, state, and federal agencies) and permit applicants (private landowners, contractors, and consultants). A content analysis of the interview data allowed us to indentify common themes, and to compare responses between stakeholder groups. The interview findings were used to inform a policy analysis of the permitting process to provide a framework for permit issuers to consider alternative approaches to the permitting process.

Key Interview Findings

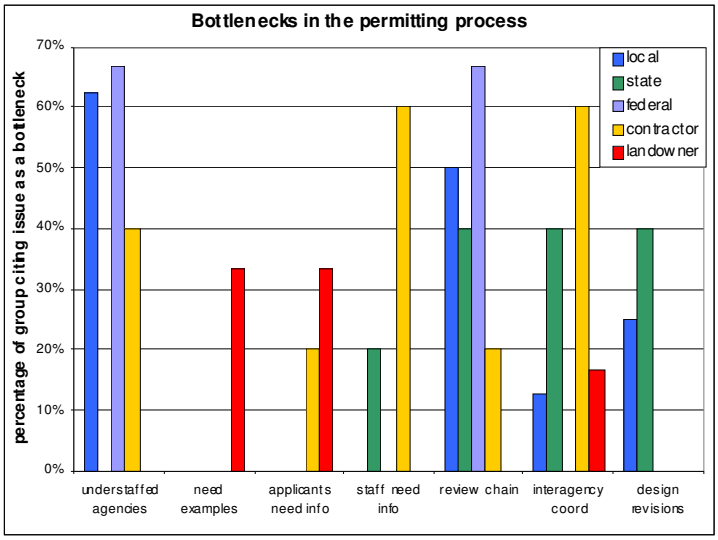
The permitting process is confusing and complicated, leading private landowners to rely on their contractors and consultants to aid them through the permitting process. Because individual permit issuing agency staff are responsible for administering a variety of permits, they are often unfamiliar with how their shoreline related permits fit into the permitting process at large.

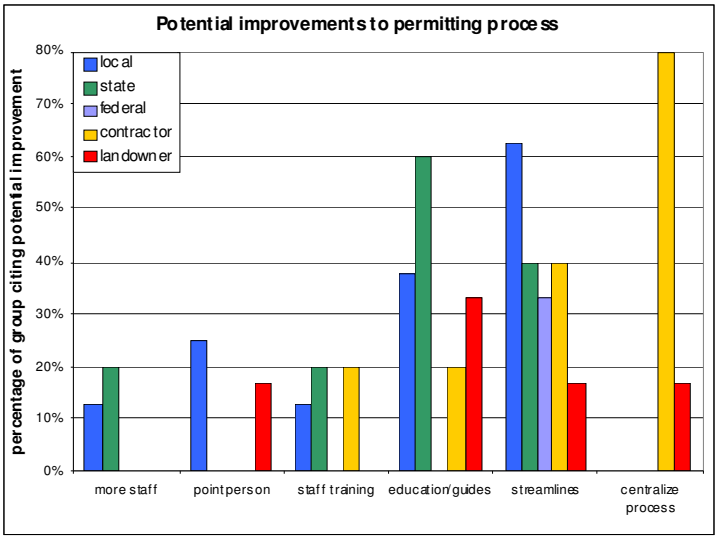
Lack of adequate resources and information about eco-friendly shorelines was identified by all interviewees.

Communication/coordination problems exist among permit issuers about the sequence of permit applications and the requirements for shoreline designs.

Non-permitted (illegal) shoreline work is common and widely recognized by private landowners, posing both environmental and public safety risks.

Few incentives for eco-friendly shoreline designs exist even with the new federal Lake Washington Shoreline Protection Alternatives Programmatic.





Policy Analysis

Policy Objective: To increase suitable nearshore habitat for juvenile salmon in Lake Washington by encouraging shoreline landowners to implement eco-friendly shorelines

		POLICY CRITERIA			
		Environmental Effectiveness	Program Costs	Viability	Environmental Review
POLICY OPTIONS	Status Quo	*Low*	*None*	*Easy*	*Stringent*
	Education & Outreach	*Medium*	*Moderate*	*Easy*	*Balanced*
	Financial Incentives	*High*	*Expensive*	*Difficult*	*Stringent*
	Permit Streamline and Code Changes	*Medium*	*Moderate*	*Moderate*	*Balanced*

Policy Options: 1) Maintain the status quo, 2) Education/ outreach and coordination both among and between stakeholder groups, 3) Provide financial incentives, 4) Make changes in code for permit streamlining

Policy Criteria: 1) Environmental effectiveness, 2) Program implementation costs, 3) Political viability and equitability, 4) Adequate environmental review

Key Policy Analysis Findings

The status quo is not working well; the current permitting process is hindering the policy objectives.

Tax incentives are not feasible as they are politically charged and may not represent the general interest of the public.

Increased enforcement is not viable; this is option is costly and hinders positive relationships between permit issuers and applicants.

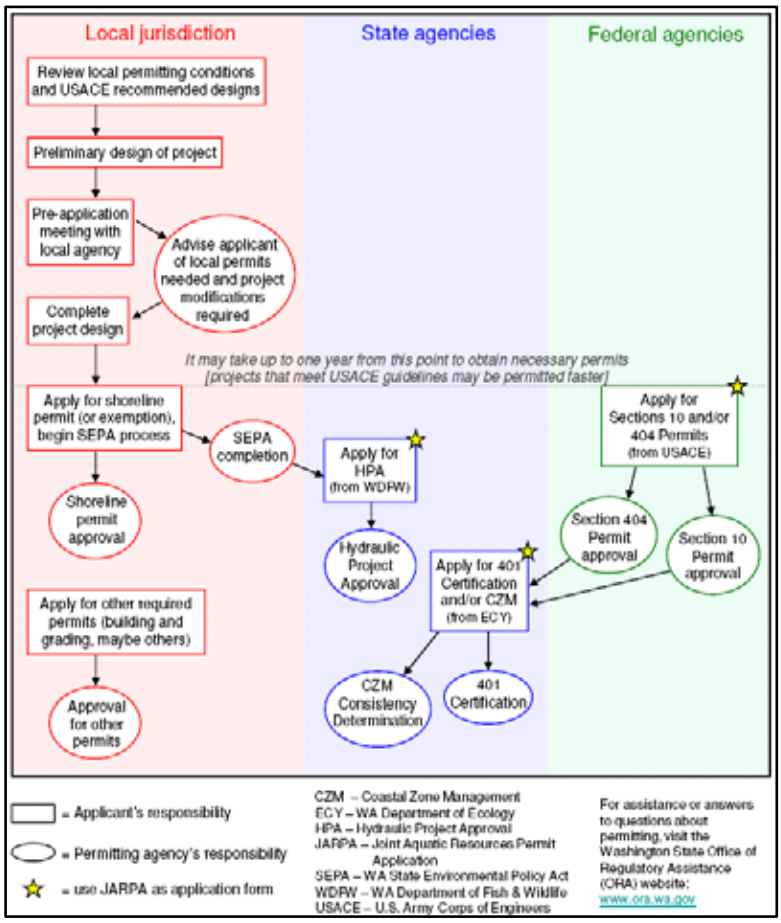
Education for all stakeholders and interagency coordination are viable and cost effective.

Recommendations

- Streamline the permit process for eco-friendly shoreline designs at the state and/or local level.
- Increase outreach and education efforts to Lake Washington property owners and shoreline contractors.
- Promote collaboration and coordination between the local, state and federal permit issuing agencies that regulate shoreline construction on Lake Washington.

Project Deliverables

Report. Written to document the Lake Washington Shoreline Permitting Process Study in full for the benefit of permit issuing agencies and our community partners, it contains more detailed information about our key findings and recommendations.



Lake Washington Shoreline Permitting Process Schematic for landowners and applicants

Permitting Process Schematic for landowners/applicants. A schematic of the entire permitting process for Lake Washington shoreline projects did not previously exist. This schematic provides a general overview of the permitting process including, and the general ordering of permit applications and review, the permits and permit applications involved, and the permit issuers involved in each step.

Information and Resources

For more information and electronic access to our full report and other Lake Washington Shoreline Team documents and presentations please visit our website: http://courses.washington.edu/emksp07/NOAA_AltTradShorelines

Acknowledgements

Community Partners Polly Hicks, NOAA Restoration Center; Jean White, WRIA8; Dave LaClergue, City of Seattle; Holly McCracken, Seattle Public Utilities; *Faculty Mentor* Research Prof. Charles 'Si' Simenstad; *Interview Participants; Washington State Governor's Office of Regulatory Assistance,* Zelma Zieman; *Washington State Dept. of Ecology,* Joe Burcar & Lori Enlund; *Henry Luce Foundation*

Introduction

Background

Lake Washington provides important habitat for numerous species including the threatened Puget Sound Chinook salmon. Lake Washington's shoreline has been and continues to be drastically altered for human use. Historically the lake's edge was a mixture of conifer forests, willow thickets, and wetlands that filtered stormwater runoff and provided nutrient inputs. Today a majority of the lake's shoreline is comprised of bulkheads, riprap, and non-native vegetation that do not provide the ecological functions necessary to support a healthy lake and threatened species.

Conventional shorelines (bulkheads and riprap) threaten the health of the lake, yet they make up more than 70% of Lake Washington's shoreline[1]. The majority of the shoreline is owned by residents empowered to choose the type of shoreline design they want on their property. Eco-friendly shorelines that promote lake health are possible, but landowners on Lake Washington perceive the process of converting to an eco-friendly shoreline as expensive and as a permitting nightmare. Residents also worry that eco-friendly shorelines will be ineffective at controlling erosion and protecting the land from wave and wake energy. These issues ranked as the most common concerns of private landowners in a survey conducted by the Fish Friendly Shorelines group.

Fish Friendly Shoreline Project

The Fish Friendly Shorelines group was a team of 2006-2007 Environmental Management students who performed a survey of private landowners around Lake Washington to collect information about shoreline resident's use of their shoreline and their opinions about what best promotes healthy shorelines[2]. The Fish Friendly survey identified the permitting process, along with cost and ineffectiveness to erosion control, as one of the top barriers to shoreline property owners implementing eco-friendly shorelines. The study also identified streamlined permitting, along with tax incentives and matching funds, as one of the top three incentives for residents to use eco-friendly design on their shoreline. The findings from the Fish Friendly study encouraged our team to investigate why the permitting process was perceived as a top barrier to implementing more eco-friendly shorelines.

Although resident's responses may have been influenced by personal experience, it is also possible that their views were informed by biased information given to them from other landowners or contractors. Further investigation was needed to assess whether these barriers were real or simply perceived. An opportunity existed for our team to assess the permitting process to identify its areas of weakness, find a way to circumvent any possible mazes, and determine whether lack of knowledge of the permit process by landowners is a problem source point. The team's community partners indicated that many

[1] Toft, J.D. 2001. *Shoreline and Dock Modifications in Lake Washington*. Technical Report. SAF-UW-0106, School of Aquatic and Fishery Sciences, University of Washington, Seattle, Washington.
[2] Howell, R., Casad, G., Fries, D., Roberts, K., Russo, B., Wallis, A. 2007. *Wildlife-Friendly Shoreline Modifications on Lake Washington: Summary of Shoreline Property Owner Survey and Regulatory Interviews*. Environmental Management Keystone Project Final Report, Program on the Environment, University of Washington, Seattle, Washington.

of the agencies involved in the permitting process want to work more collaboratively to make permitting a smoother process, but they often do not know how to do this.

Eco-Friendly Shorelines

A shoreline is eco-friendly if it promotes beneficial ecosystem functions to wildlife while still preventing erosion and maintaining human enjoyment of the lake. Eco-friendly shorelines do not all look alike, but they may include such features as beach coves or full beaches, overhanging vegetation or planting buffers, bulkheads that are set back an appreciable distance behind the ordinary high water mark (OHWM), appropriately placed logs or large woody debris, and biotechnical slope stabilization. For more information, see the City of Seattle's *Living Shorelines* guidebook due out in summer 2008.

Goal and Objectives

Our overall project goal is to *improve ecosystem functions of Lake Washington by encouraging shoreline landowners to implement eco-friendly shoreline designs*. This can be accomplished through a measurable reduction in hardened shoreline around Lake Washington. We aimed to do this by investigating the permitting process to identify what role it plays in the implementation of eco-friendly shorelines, and by assisting our community partners in educating all stakeholders involved on the costs and benefits of eco-friendly versus traditional hardened shorelines. Our specific project objectives included:

- Performing a policy analysis of the shoreline construction permitting process that Lake Washington landowners are required to navigate
- Use this information to create end products that we or our community partners will use to promote eco-friendly shorelines on Lake Washington
- Provide educational resources for private landowner regarding their shoreline design options

Project Rationale

The physical and ecological function of Lake Washington has been drastically altered by humans over the last century. Historically, the lake was drained by the Black River, which fed into the Duwamish River flowing into Elliot Bay. The Duwamish Estuary at the mouth of the Duwamish River was the primary rearing area for juvenile Chinook salmon. The Cedar River also fed into the Black River downstream from Lake Washington. In 1916, the Lake Washington Ship Canal and Chittenden Locks were completed, connecting the lake to Shilshole Bay. The Cedar River was redirected to flow into Lake Washington. These actions resulted in lowering the water level of the lake roughly ten feet, exposing 5.4 km^2 of previously shallow water habitat, and eliminating many of the lake's wetlands[3]. Furthermore, residential development on the lake resulted in the construction of bank reinforcements in the form of bulkheads and riprap at the lake's edge, changing nearshore conditions from a low gradient with small gravel and sand substrates to a steep gradient more vulnerable to erosion from wave energy. The

[3] Kerwin, J. 2001. *Salmon and Steelhead Habitat Limiting Factors Report for the Cedar-Sammamish Basin*. Washington Conservation Commission.

engineered changes in the rivers and lake also forced migrating salmon and other fish to change their migratory routes and rearing grounds. Juvenile Chinook salmon now rear primarily in nearshore areas of Lake Washington.

This area is critical for the survival of the native fish so highly valued as a member of the ecosystem and as food, especially by Native American tribes. Fish must now travel different migratory corridors and rearing areas than they historically used. Optimal rearing areas for juvenile salmon are characterized by shallow water, a low shoreline gradient, overhanging vegetation along the water's edge, nearshore logs and woody debris, nearby wetlands, and the absence of large objects over the water such as docks that create dark shaded areas. A steep gradient with a hard retaining wall at the water's edge creates deep nearshore areas in which juvenile salmon are less able to find food and are vulnerable to predation. In 1999, Puget Sound Chinook salmon and bull trout were listed as "threatened" species under the Endangered Species Act (ESA). Under the ESA, federal agencies must ensure that actions they authorize are not likely to jeopardize the continued existence or result in adverse modification of designated critical habitat of listed species[4].

Since the nearshore of Lake Washington is already significantly altered in ways that seriously compromise the critical habitat of Chinook salmon, efforts to comply with the ESA and to more generally enhance the health of the lake ecosystem have focused on "restoration" of the shoreline. Of course, the lake's shoreline cannot be restored to its natural conditions because the water is almost ten feet lower than its natural level and homes and other structures have been built on the land that was historically under water. Furthermore, since most of the lakefront property is owned by private individuals and currently retained by bulkheads and riprap, it would be very difficult, if not politically impossible, for regulatory agencies to mandate that critical areas of the shoreline be restored to conditions that mimic the natural shoreline. Thus, the U.S. Army Corps of Engineers (USACE) in consultation with the National Oceanic and Atmospheric Administration (NOAA) is working to fulfill its obligations under the ESA by cooperating with local and state agencies to require shoreline design that enhances habitat for Puget Sound Chinook salmon as part of any proposed significant work on Lake Washington shorelines.

The Washington Shoreline Management Act (SMA) requires that shoreline natural resources be protected against adverse effects to water and wildlife, and that adverse environmental impacts be mitigated to the maximum extent feasible[5]. Local jurisdictions have Shoreline Master Programs/Plans (SMPs) which are based on the requirements set forth by the SMA. Most local agencies have codes that now prohibit the replacement of hardened shoreline retaining structures unless it is shown that they are needed to maintain protection of buildings from wave action or it is otherwise infeasible to restore the shoreline to more natural conditions.

Despite increasing efforts on the part of the agencies at local, state, and federal levels of government, very little of the privately owned shoreline of Lake Washington has been restored to more natural conditions. Our community partners, NOAA, Water Resource Inventory Area 8 (WRIA 8), Seattle Public Utilities (SPU), and the City of Seattle asked our team to develop and implement a project that would address this issue. They also expressed that a study of the permitting process would be very helpful to them in their continued efforts to increase the quantity and quality of eco-friendly projects on Lake Washington shoreline residential property. The local jurisdictions are currently undergoing the process of updating their SMPs, so an analysis of the permitting process is timely in that it could be of use to

[4] Endangered Species Act. 1973. (7 U.S.C. § 136, 16 U.S.C. § 1531 et seq.).
[5] Shoreline Management Act. 1971. Chapter 90.58 RCW.

agencies as they revise the codes that regulate local permitting of shoreline construction and restoration.

Given the responses to the survey, additional efforts geared toward better understanding and communicating the issues related to the cost of eco-friendly shorelines and the perception of such shorelines as being ineffective at controlling erosion are recommended. This could be the focus of a future related project.

Interviews

During the early stages of our project, we referred to eco-friendly shorelines as "alternative shorelines". However, over time we came to the conclusion that the term "alternative" is ambiguous. Although many people do not know what an eco-friendly shoreline is, "eco-friendly" at least gives them an idea of the shoreline's function, even if they cannot picture the specific aspects of such a design. However, we decided not to reword our interview questions after the fact. Hence, in the interview questions and the discussion of the responses, we sometimes refer to "alternative shorelines." Similarly, there are other terms that refer to the same thing, such as green, living, or soft shorelines. A consensus should be reached on the terminology to avoid confusion and facilitate recognition of the chosen term.

Methods

To gain an understanding of the nuts and bolts of the shoreline permitting process and the diversity of perspectives on permitting, we conducted a series of interviews with people from the entire spectrum of participants in the permitting process. The people we interviewed include permit issuers from local, state, and federal government agencies, as well as permit applicants including Lake Washington homeowners and shoreline contractors and consultants. We created a list of questions to ask every interviewee, with a few additional questions asked only of permit applicants. See Appendix A for the complete list of interview questions. This list of questions was approved by the University of Washington Human Subjects Division, which required us to keep the identities of the interviewees anonymous. The interview questions are mostly open-ended; rather than giving interviewees options to choose from, we simply asked the questions and allowed the interviewee to interpret and answer as he/she saw fit. We asked for clarification when needed. Almost every interview involved one interviewee and two interviewers from our team; one team member was the primary question asker, while the other was the primary note taker. Interviews lasted between 30 minutes and 1 hour, depending on the time available and the amount of detail offered by the interviewee. After the interview was completed, the primary note taker typed the answers to the questions into a document, using a template for consistency. The primary question asker, who also took notes during the interview, then reviewed the typed notes and added points missed by the primary note taker and noted any points of disagreement (which were rare) with the original notes.

Once the interviews were completed, the team performed a content analysis to identify trends and patterns from the interview notes. The analysis consisted of compiling all the narrative responses to each question into a single document, then reading through the entire collection of responses and compiling a list of unique responses. The responses were subsequently read through again, this time matching the response from each interview into the appropriate category or categories of responses from our list and recording it in a comprehensive spreadsheet. Since this determination is somewhat subjective, it was done in teams of two to achieve some consistency and guard against mistakes. Some determinations were very easy and straightforward, such as ones in which many interviewees used common terminology to answer a question (i.e. "agencies are understaffed" or "pre-application

meeting"), while others required interpretation to decide whether differently worded answers were communicating the same idea and should be lumped together in one category. We did our best to categorize the responses by what each interviewee intended to communicate in the narrative offered to answer our questions.

Once the spreadsheet was completed, we calculated the percentages of each category of response provided by each group of interviewees. Interviewees fell into the broad groups of permit issuers and permit applicants. Within in the group of permit issuers, the interviewees were in subgroups of local agencies, state agencies, and federal agencies. Within the group of permit applicants, the subgroups were private landowners and contractors/consultants.

Results and Recommendations

A total of 27 interviews were conducted during the winter of 2008 and the qualitative data obtained from the interviews was analyzed as described in the Methods section of this report. Of the 27 interviews, 15 were with permit issuers and 11 were with permit applicants. Of the interviews with agency personnel, eight represented a local agency, five represented a state agency, and three represented a federal agency. We also conducted five interviews with contractors and consultants, six with and shoreline residents on Lake Washington. Figure 1 shows the graphical distribution of the various stakeholders that were interviewed. The interviewees' familiarity with the permitting of specifically eco-friendly shorelines varied, but all had some experience with the shoreline permitting process on Lake Washington.

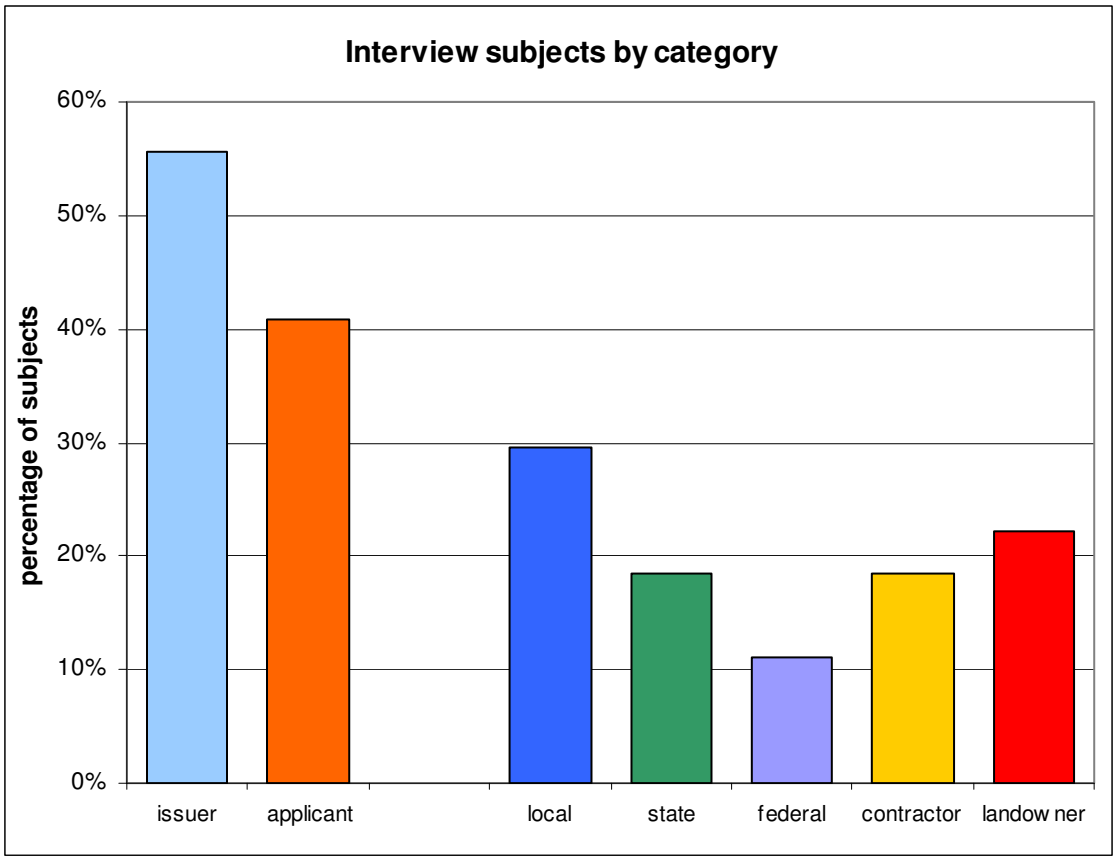


Figure 1: Interview subject by category.

The results of the content analysis are provided here. It is important to note that the results are not statistically significant and should not be interpreted as such. The interviewees were selected based on contacts the team had through our community partners, information gathered from the internet, and from information volunteered by other interviewees. Since the interviewees were not selected at random and the number of interviewees in each group is small, the results should not be interpreted as representative of the group as a whole. We have tallied the results and report them graphically and numerically to give general information regarding the diversity of perspectives and knowledge of the Lake Washington shoreline permitting process among the various stakeholders. While the results should not be thought of as representative of the whole groups of stakeholders, nor should the numbers be construed as statistically significant, the results do identify important trends that can inform continued efforts to increase eco-friendly shoreline projects on Lake Washington and improve ecosystem function.

While every effort was made to interview each person individually, time and scheduling concerns were balanced with the desire to obtain the largest possible breadth and depth of information in the time we had, resulting in two interviews in which two people from the same agency or company being interviewed together. In both of these interviews, the two interviewees were in agreement with each other on the answers to the questions. In the results, those interviews are counted the same as any other interview; no extra weight was given to them due to the participation of two people in the interview.

All of the graphs in this section of the report follow the same format. Some divide interviewees into the large groups of issuers (15) and applicants (11), while most divide interviewees into the subgroups of local agency (eight), state agency (five), federal agency (three), contractor/consultant (five), and private landowner (six). There was one interviewee representing a government agency that is a stakeholder in the permitting process, but is neither an issuer nor an applicant. The responses from that interview are included in the appropriate subgroup, but they are not factored in to either of the large groups. The distribution of interviewees in the large groups and subgroups are shown in Figure 1.

In this section, we provide a content analysis based on the following questions:

- *Are there any perceived or actual bottlenecks in the permitting process? If so, where do they exist?*
- *How can permit applicants avoid bottlenecks?*
- *What are the most common mistakes made by permit applicants?*
- *Is there a discussion between the permit applicant and the permit issuer about the applicant's shoreline design? Are alternative shorelines promoted by the permit issuer?*
- *Are there any shortcuts or streamlines in the permitting process for landowners interested in implementing alternative shoreline designs (as compared to installing or replacing a bulkhead or riprap)?*
- *Is any alternative shoreline design information available for permit applicants?*
- *How do people know they need a permit?*
- *What assistance and resources are available for permit applicants?*
- [*To landowners:] Does your property have an alternative shoreline design? [To contractors and consultants/designers:] Have you designed and/or constructed any alternative shoreline designs? Why or why not?*
- *What are the benefits of alternative shoreline designs?*
- *How do the following factors affect the choice between traditional and alternative shoreline designs?*

The remainder of this section of the report presents the findings from the interviews. For each of the questions that yielded responses that can be compared in a meaningful way and provide some insight into the permitting process, we present the results using the following format. First, the question asked of the interviewees is given. Then the qualitative data based on the verbal responses is described in text and graphically. Finally, we suggest recommendations for addressing the issue.

Are there any perceived or actual bottlenecks in the permitting process? If so, where do they exist?

A wide variety of responses were given to this open-ended question, but there was general consensus among interviewees from all of the groups that there are bottlenecks in the permitting process. The responses generally fit under the themes of lack of resources (time/staffing, education, information) and issues within the process itself. Over 40% of each of the agency groups stated that the review chain is a bottleneck, meaning that the current process is slowed by the requirements for some permits and reviews to be completed by one agency before another agency can review or often even accept an application. Over 60% of local and federal agency interviewees, along with 40% of contractors and consultants, stated that lack of adequate staffing at some of the agencies slowed the permitting process. Some interviewees indicated that the staffing issues were improving. 25% of the local agency

interviewees and 40% of the state agency interviewees said that revision of designs slows the process because of the back-and-forth negotiation of the design between permitting agencies and applicants and the need to resubmit applications to other agencies if the design is revised at the request of one agency.

About a third of landowners stated that they need more information and examples of shoreline designs that are acceptable to the agencies. 20% of contractors and consultants agreed that applicants need more information, and 60% also think that agency staff need more information and education, as they perceived that some permit reviewers were not as familiar with the specific permitting process associated with shorelines (as opposed to other land use permits) as necessary for timely review, and even less familiar with alternative shoreline designs. As Figure 2 shows, at least one interviewee from each subgroup except the federal agencies cited inadequate interagency coordination as a bottleneck. Contractors and consultants, who submit applications for shoreline projects on behalf of the landowners much more often than the landowners themselves, were most vocal about the lack of interagency coordination and its effect on the permitting process.

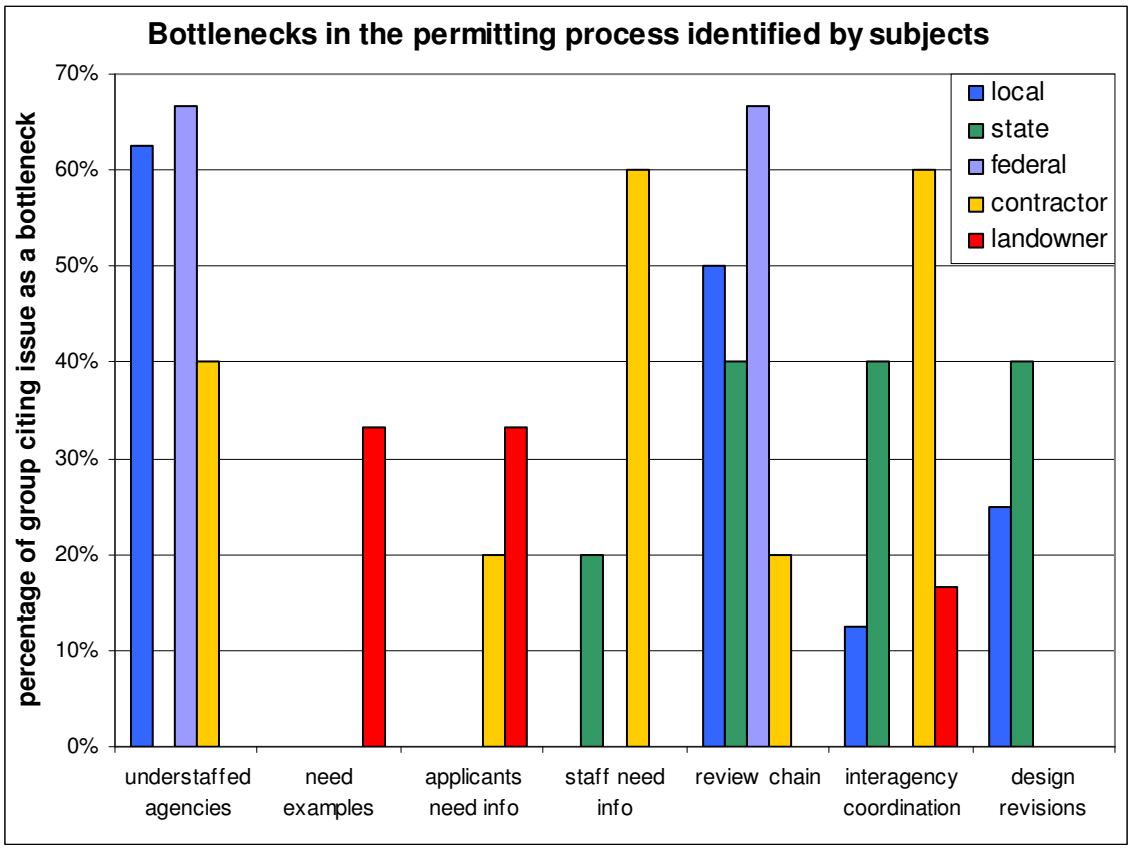


Figure 2: Bottlenecks in the permitting process, all stakeholders.

When the results are sorted by permit issuers and applicants, as shown in Figure 3, it is clear that there is a difference of opinion between the interviewees belonging to these two groups. Over 45% of permit issuers cited the review chain as a bottleneck, while only a small fraction of the applicants cited that issue. Even more striking is that more than 25% of the permit issuers brought up design revisions as a bottleneck, but no applicants cited it (Figure 3).

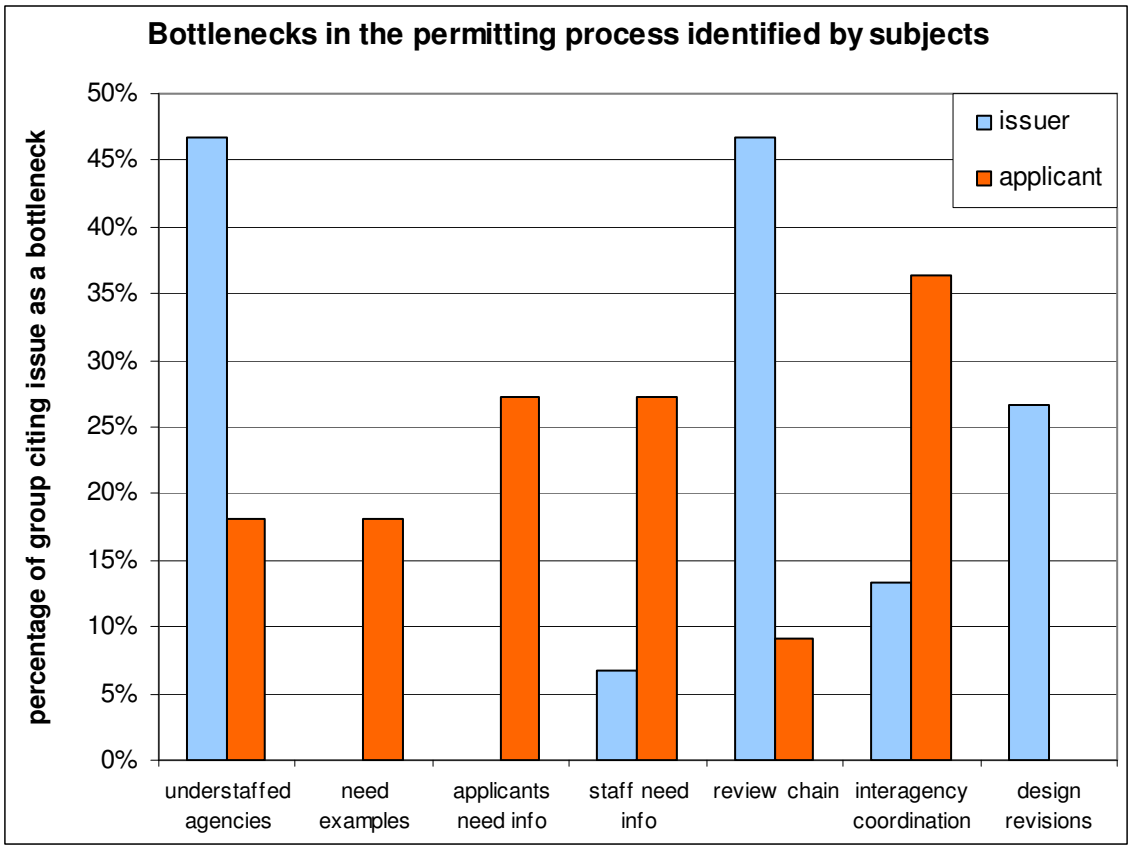


Figure 3: Bottlenecks in the permitting process, separated by issuer and applicant.

Recommendations

Streamlining the permitting process would eliminate or minimize delays due to the review chain. Providing information to landowners, contractors, and consultants about the agencies' requirements for shoreline projects, including a variety of examples, would allow applicants to start the process with a design that will require few or no revisions. Interagency coordination will be necessary in developing appropriate guidelines and examples for applicants. Some agencies deal with shoreline permitting frequently, while some of the local jurisdictions do not. Educational material shared between the agencies at all levels would be helpful in interagency coordination as well as providing the land use departments of all of the local jurisdictions around Lake Washington with the resources they need in order to permit shoreline projects that are in line with the state and federal requirements.

How can permit applicants avoid bottlenecks?

Again, interviewees volunteered their own answers to this question, and several of the answers were repeated by many of the interviewees. Some of the interviewees did not have any suggestions of ways applicants can avoid bottlenecks. Interestingly, the only ways identified by landowners were applying early and hiring a professional. As shown in Figure 4, a majority of the permitting agencies stated that the best way applicants can avoid bottlenecks is by following the guidelines of the permitting agencies (stated several ways, such as comply with the code, follow the guidelines, and come in with an eco-friendly shoreline design). Having a productive pre-application meeting in which the shoreline design is

discussed was identified by some of the local and state agency interviewees and some of the contractors and contractors as another means to avoid bottlenecks. In addition, Figure 5 shows that permit applicants were much more likely to say that hiring a professional is a way to avoid bottlenecks.

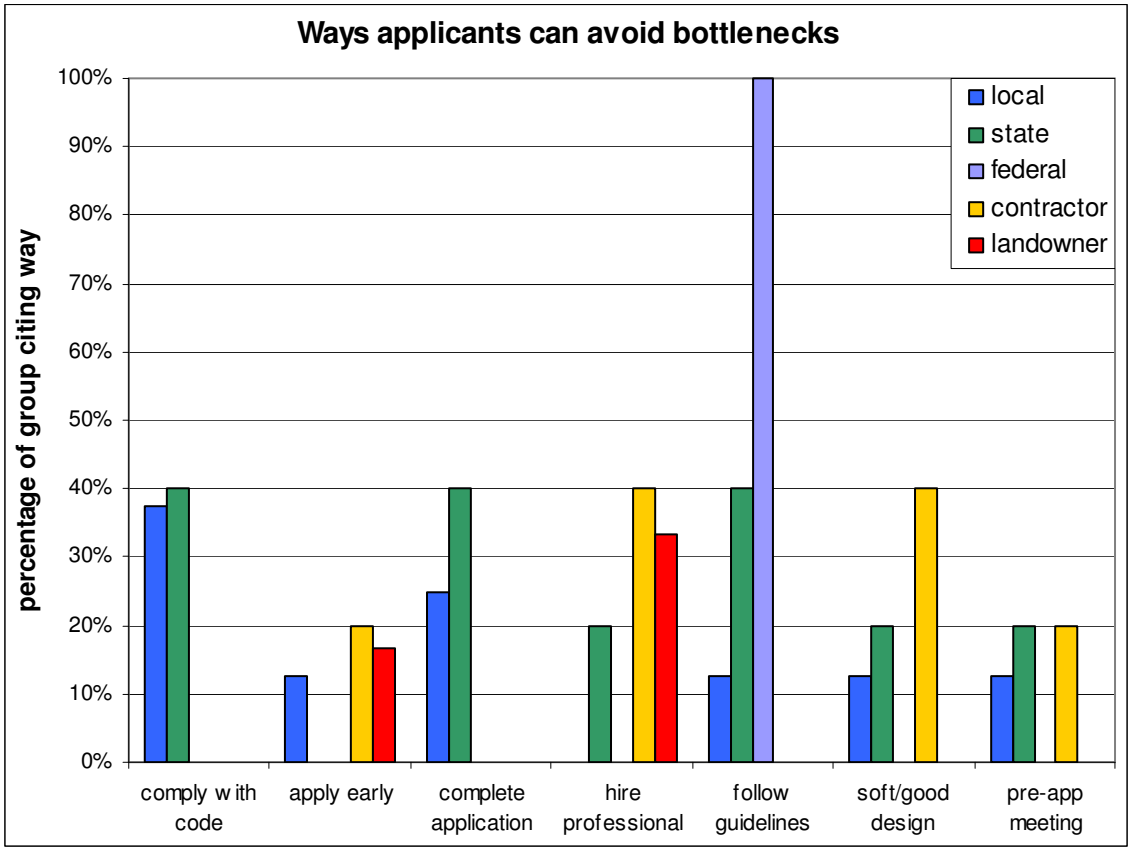


Figure 4: How applicants can avoid bottlenecks in permitting process, sorted by subgroups

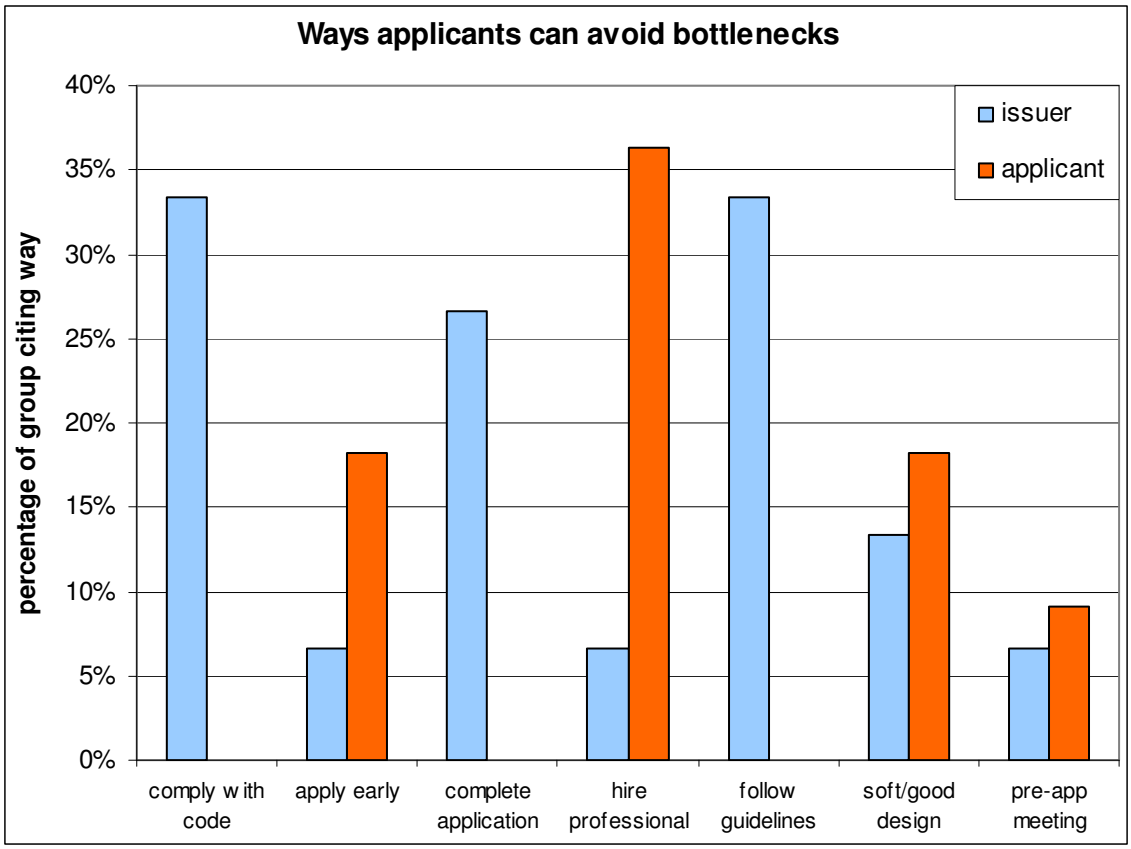


Figure 5: How applicants can avoid bottlenecks in permitting process, sorted by groups.

Recommendations

As with the responses to the previous question, this data indicates that education and information for applicants about the requirements for shoreline projects would help to minimize time and frustration for everyone involved. Also, since most local jurisdictions require a pre-application meeting with the applicant, this is an opportunity for the local agencies to educate applicants about what the agencies (at all levels) are looking for in a shoreline project design and the potential for eco-friendly designs to improve the health of the lake and ensure a smoother, faster permitting process for the applicant.

What are the most common mistakes made by permit applicants?

The most prevalent answers provided by the interviewees were ignorance of the permitting process, offered by two-thirds of the applicant group and one third of the permit issuer group, which is especially striking considering that the response doesn't identify a mistake so much as a deficiency that is likely to lead to mistakes. Providing incomplete information on applications was a common response among all groups except landowners (Figure 6). Having "too hard" of a shoreline design and not complying with the code were fairly common responses among agencies and a small percentage of contractors and contractors.

Perhaps most interesting is the indication by 20-33% of every agency group that a common mistake by landowners is having a blind trust in their contractors or consultants to take care of the shoreline design

and permitting. Some interviewees at each level of agency believe that some contractors and consultants do not inform their clients of alternatives to replacing a bulkhead because they do not know how to design or implement an eco-friendly shoreline. Some of the contractors and contractors we interviewed stated that alternative shorelines are not desired by homeowners and that soft shorelines are not effective at controlling erosion and do not work on most sites. Some of the permit agency interviewees also said that many (but not all) contractors and consultants charge their clients by the hour, thus giving them an incentive to submit shoreline designs that will be difficult to approve and draw out the permitting process by refusing to make the agencies' recommended design changes without keeping their clients in the loop. There did seem to be a general consensus among all of the groups of interviewees that many landowners have little to no communication with the permitting agencies, even regarding revisions to the designs, leaving contractors and consultants as the go-between. This situation could potentially lead to the conflict of interest described by some of the permit issuers.

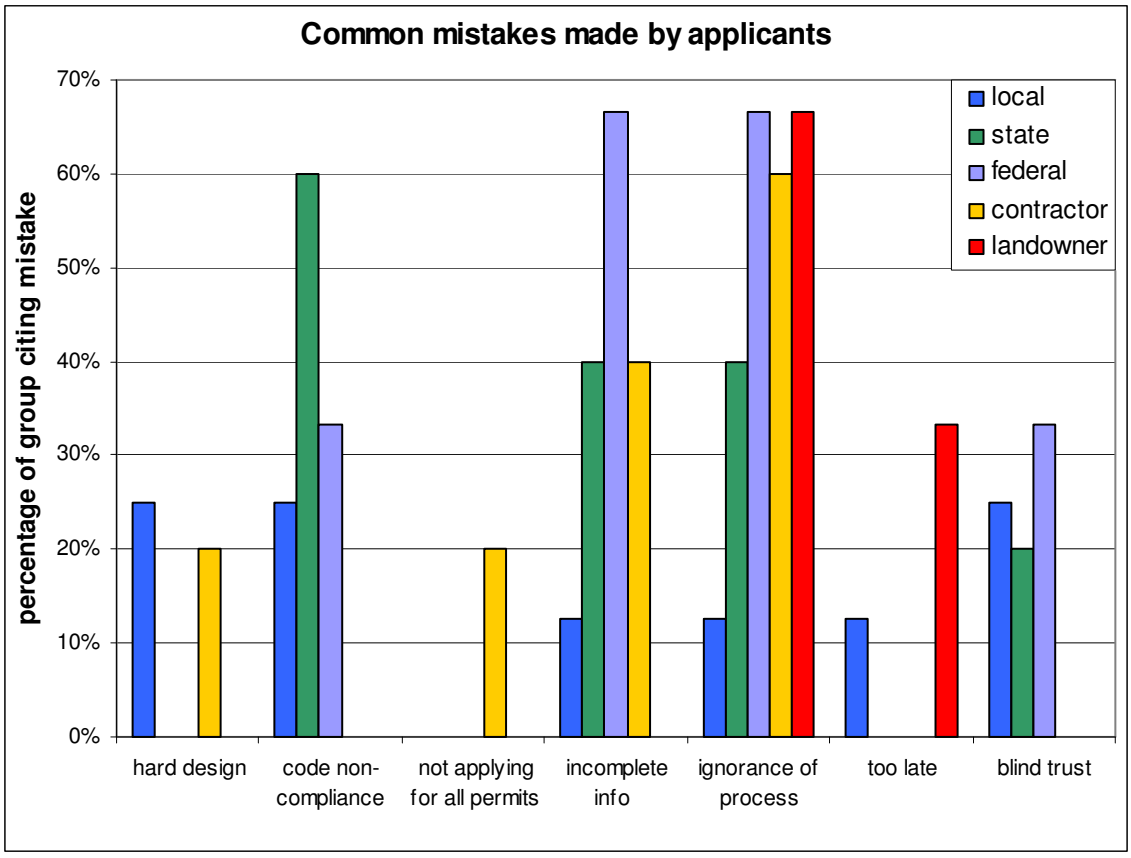


Figure 6: Common mistakes made by permit applicants.

Recommendations

Once again, applicants need better information and guidance to help them understand what shoreline designs will be approved by the agencies. In addition, there is a possibility that in some cases, the information that is provided by agencies regarding suggested design revisions is not passed on the landowners from their agents (contractors or consultants). We have no evidence that this is a widespread problem, but since we do know that most landowners hire contractors and/or consultants to navigate the permitting process for them, this could be an issue. Landowners are ultimately responsible for their own property and the decisions concerning it, so they should be informed of the shoreline

requirements and the reasoning behind the code in order to make their own decisions, rather than allowing hired professionals to make decisions for them.

Is there a discussion between the permit applicant and the permit issuer about the applicant's shoreline design? Are alternative shorelines promoted by the permit issuer?

The answers to these questions were essentially yes or no. Figure 7 gives the percentages of each group answering yes to the question. Interestingly, more than half of the permit issuers and the contractors and contractors said that there is a discussion between the permit issuer and applicant about the shoreline design and that alternative shoreline designs are promoted by the permit issuer, but only one third of the landowners interviewed agreed. This may reflect the fact that landowners often allow hired professionals to act as their agents in the permitting process. But it may also indicate that beyond not being directly involved in the process, the landowners do not know what is going on in the process. It is also interesting that not all of the permit issuers agreed that there is a discussion between the issuer and applicant, let alone that alternative shorelines are promoted. This is especially interesting given that every level of government has regulations related to shoreline development and the protection of the environment.

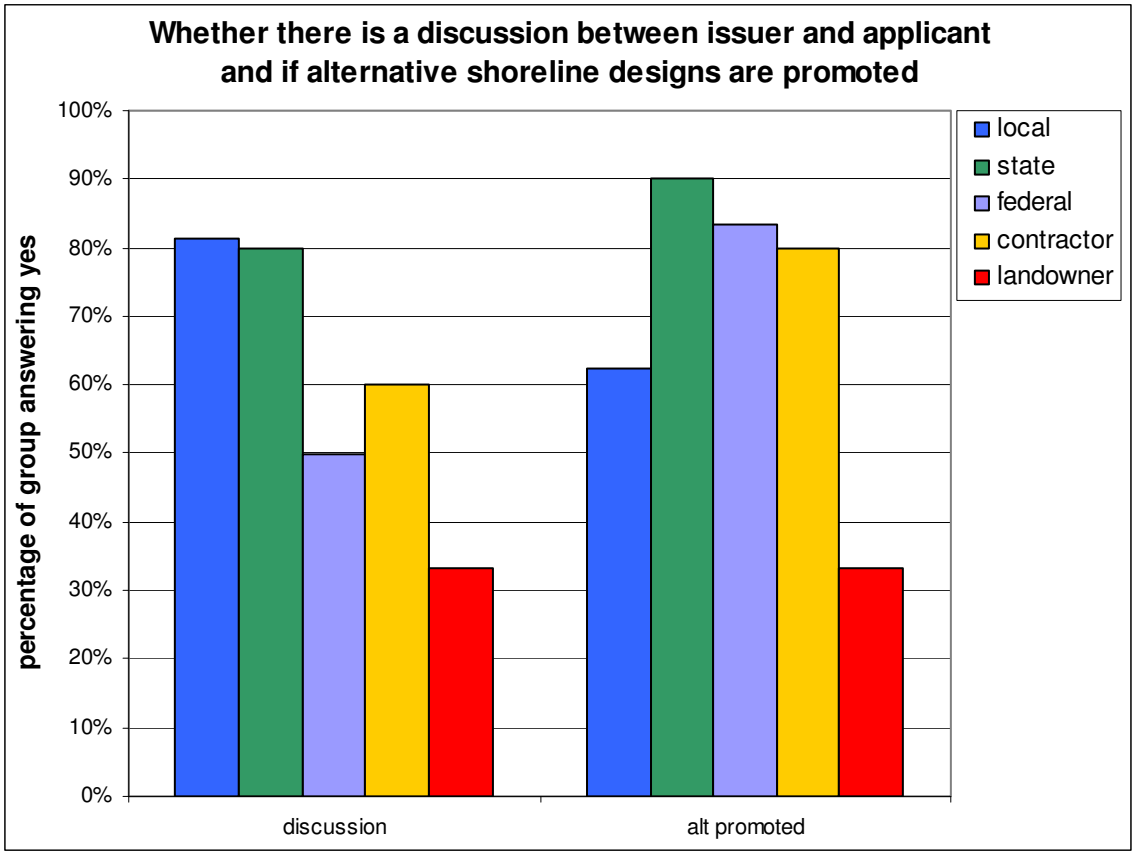


Figure 7: Discussion and/or promotion of eco-friendly shorelines.

Recommendations

To increase restoration activities on Lake Washington residential shorelines, it is critical that the agencies achieve a greater cohesion, both horizontally and vertically, in terms of how shoreline projects will be permitted and the information that will be given to applicants and potential applicants. The information communicated to the public and to applicants should be consistent and clear.

Are there any shortcuts or streamlines in the permitting process for landowners interested in implementing alternative shoreline designs (as compared to installing or replacing a bulkhead or riprap)?

Interviewee responses were highly variable among the interview subject categories. As shown in Figure 8, all federal agency subject responses, 50% of contractor subject responses, 17% of landowner subject responses, 13% of local permitter subject responses, and 10% of state agency subject responses identified that yes, there are shortcuts or streamlines in the permitting process for shoreline residentss interested in implementing alternative shoreline designs. The variablility among the different subject group responses suggests that there is a lack of consensus on whether or not shortcuts or streamlines exist in the permitting process as well as a lack of communication between stakeholder groups about the shortcuts or streamlines that do exist. It is important to note that response variability occurs on mulitple levels, within a subgroup (for example, among permitter jurisdictions) as well as between subgroups (for example, between permitters and applicants).

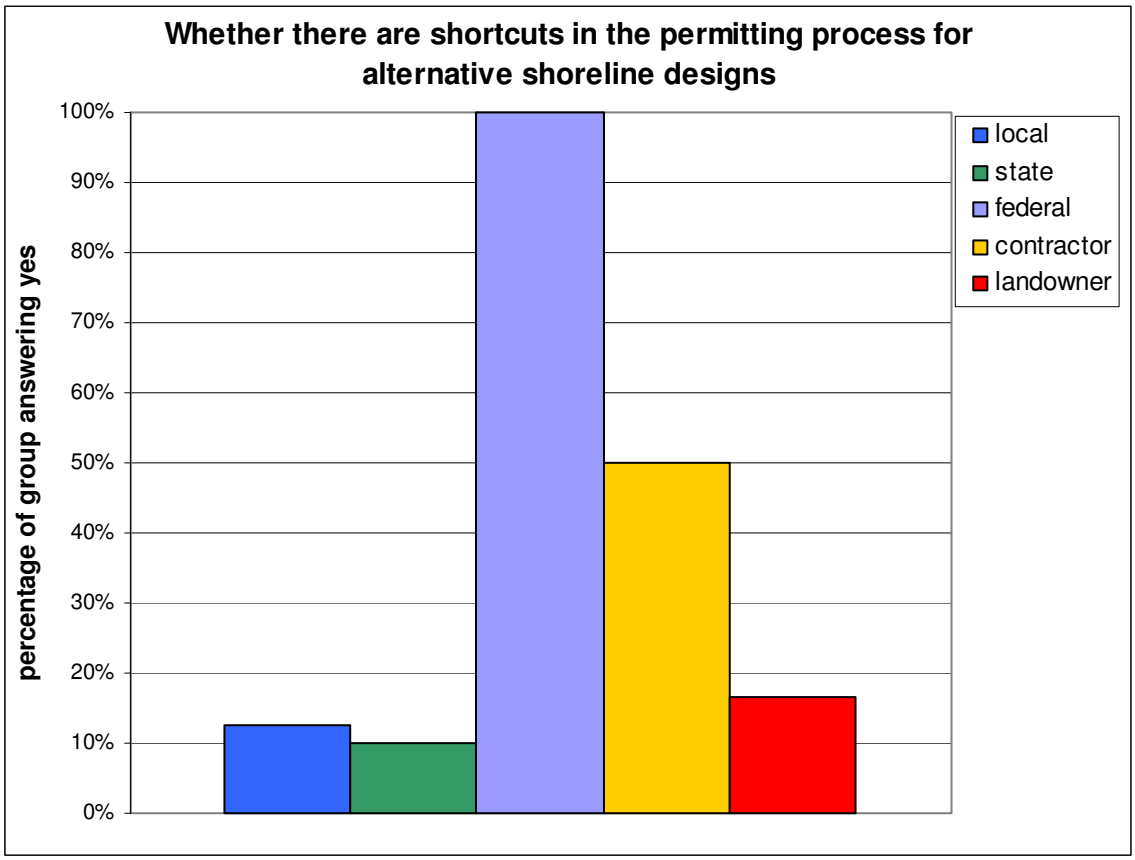


Figure 8: Shortcuts in the permitting process.

Recommendation
Streamlines and shortcuts in the permitting process were identified as top potential incentives for private landowners to implement eco-friendly shoreline designs.[6] *Increased interagency communication is recommended to increase consensus among permit issuers regarding existing streamlines and shortcuts in the permitting process. More communication between permit issuers and permit applicants regarding existing streamlines and shortcuts in the permitting process to permit applicants is recommended. In addition, permit issuers at all levels should strive to gain a better understanding of all aspects and stages of the permit process.*

Is any alternative shoreline design information available for permit applicants?

The interviewed subjects independently communicated the following categorized responses as to their knowledge on whether there is any alternative shoreline design information available for permit applicants: none exists, Lake Washington Shoreline Protection Alternative Programmatic (SPAP), websites, the City of Seattle's *Living Shorelines* guidebook, professionals, and more information is needed. As shown in Figure 9, all permit applicants and all permit issuers, except federal permit issuers, communicated that no alternative shoreline design information is available for permit applicants. Permit issuers across all levels of government identified the SPAP as a source of alternative shoreline design information for permit applicants; however, no landowners identified the SPAP as a source of alternative shorelines information. Local and federal permit issuers as well the majority of contractors interviewed commented that websites contained information about alternative shorelines for permit applicants, however; no landowners identified websites as a source of alternative shoreline design information. The only subject subcategory to identify the City of Seattle's *Living Shorelines* guidebook as alternative shorelines information for applicants was local permit issuers. Local and state permit issuers as well as shoreline residents identified professionals as a source of alternative shoreline information; no federal permit issuers or contractors identified professionals as sources of alternative shoreline information. When asked if shoreline design information is available for permit applicants, state and federal permit issuers as well as contractors took the question one step further to suggest that more information is needed . Half of all landowners reported that there was no publicly available information on alternative shorelines, and instead relied on contractors and/or consultants for information.

[6] Howell, R., Casad, G., Fries, D., Roberts, K., Russo, B., Wallis, A. 2007. *Wildlife-Friendly Shoreline Modifications on Lake Washington: Summary of Shoreline Property Owner Survey and Regulatory Interviews*. Environmental Management Keystone Project Final Report, Program on the Environment, University of Washington, Seattle, Washington.

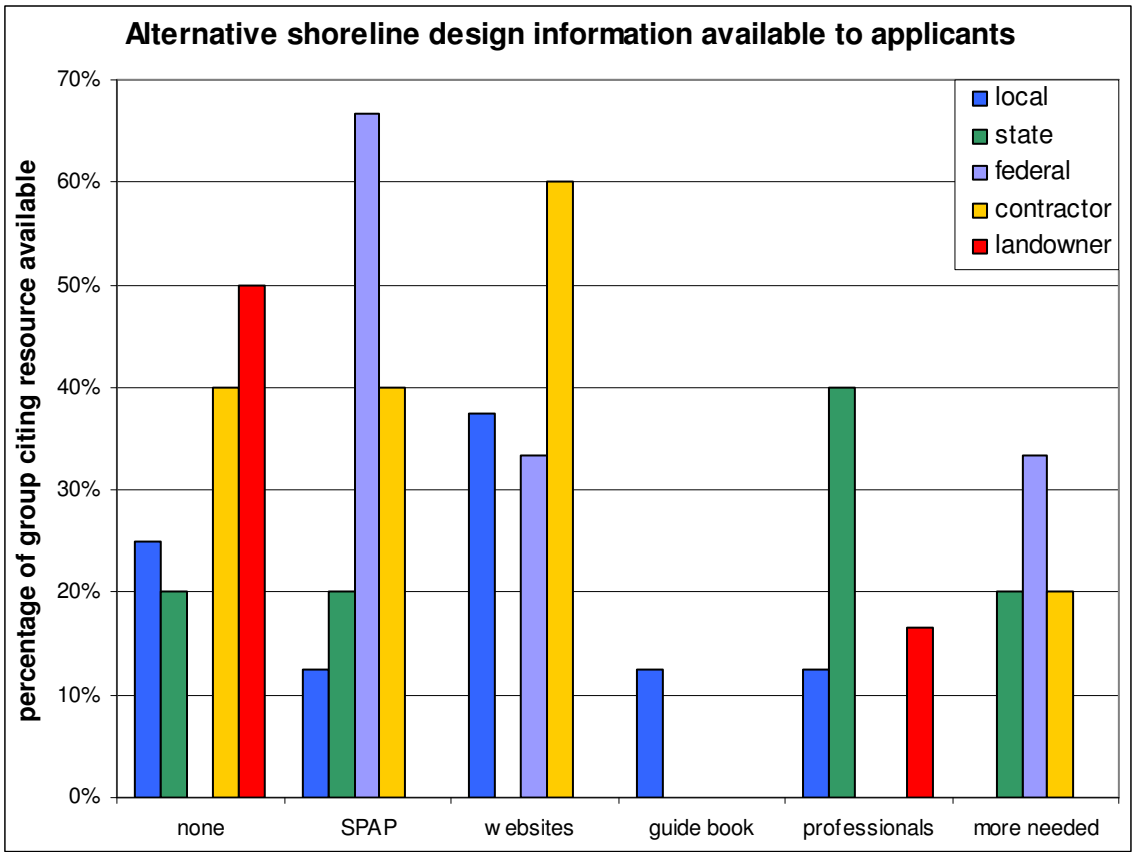


Figure 9: Availability of design information

Recommendations

From the responses received on permit process stakeholders' knowledge of existing and available alternative shoreline design information three major themes arose: (1)almost all stakeholders in the permitting process agree that there is a deficit in alternative shoreline design information for permit applicants; (2)the information that does exist is not recognized across all stakeholder subcategories; and (3)while the majority of landowners communicated that there is no alternative shoreline design information available for permit applicants, when an information source was identified 'professionals' was the only source communicated in responses. In order to encourage alternative shoreline designs on private property, alternative shoreline design information should be available to permit applicants. Also, greater promotion, education and outreach of alternative shoreline design information are needed for both existing and future information resources. Because shoreline residents identified 'professionals' as their primary source of alternative shoreline design information, it is recommended that greater education and encouragement of alternative shoreline design information is needed from contractors, consultants, and agency personnel in direct communication with landowners if greater consideration of alternative shoreline designs is desired. Agencies and municipalities interested in promoting alternative shoreline designs should consider holding training sessions on the best management practices regarding alternative shoreline design.

Are there any improvements that could be made in the permitting process?

Interview subjects independently identified and communicated six potential approaches for improving the existing permitting process. The six potential improvement approaches include: increasing permit handling staff; designating a point person to communicate information about and handle permit applications; increase permitting process training for permitting staff; increase permitting process education and guidance for permit applicants; streamline the permitting process; and create a centralized permitting process by allowing permit applicants to apply for all the required permits through one agency. As shown in Figure 10, all permitting process stakeholder groups suggested streamlining the permitting process as a potential approach to improving the permitting process. All stakeholder groups, excluding the federal agencies, communicated that greater education and guidance for permit applicants may improve the permitting process. State and local permit issuers expressed a need for increasing permit issuer staffing as a method for improving the permitting process. Among all stakeholders local permit issuers and landowners both communicated that designating a point person to communicate information about and handle permit applications have the potential to improve the permitting process. Creating a centralized process was a suggested approach to improving the permitting process by all permit applicants (a high percentage of contractors and some landowners); however, no permit issuers suggested this improvement approach.

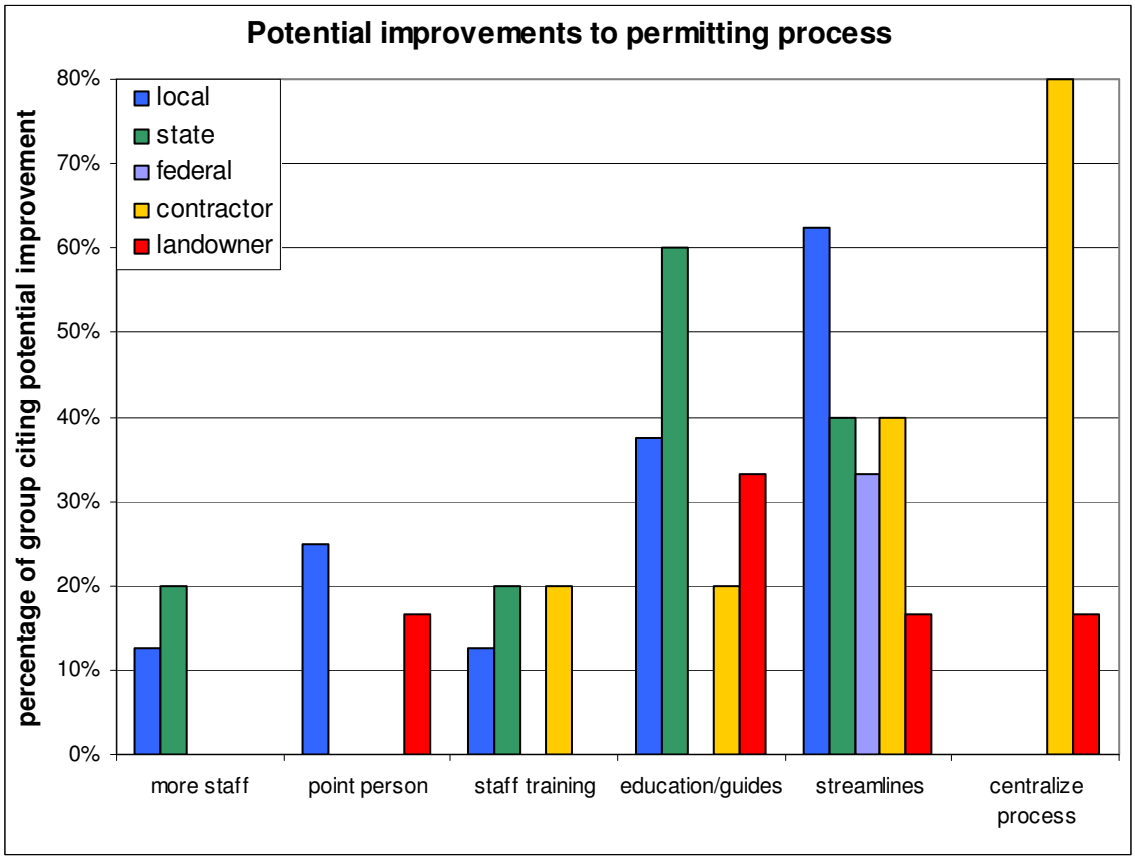


Figure 10: Potential improvements to the permitting process

Recommendations

Because streamlining the permitting process was identified by all stakeholders in the permitting process, it is recommended that permit issuing agencies collaborate to develop and communicated a streamlined permitting process for applicants. In streamlining the permitting process permit issuers should consider opportunities for permit applicants to obtain all necessary permit information and application materials from one permit issuing agency. Establishing a single permitting office (for example, a local planning and permitting office) adequately staffed and educated on the complete private property step-by-step shoreline permitting process and capable of communicating this process to applicants would potentially streamline the permitting process, as well as incorporate the most commonly communicated improvement suggestions from all interviewed stakeholder groups without initiating a complete re-organization of the current multi-jurisdictional permitting process to create a centralized agency.

How do people know they need a permit?

Nine categorized responses were independently derived and communicated by permit process stakeholders regarding how people knew they needed a permit to perform work on their shoreline. The nine categorized responses were: interviewed subjects were unclear and not sure; needing a permit is thought of as common knowledge; through public notice postings; people do not know they need a permit; people have been caught without a permit and then found out they needed one; through contractors; through agencies; through newsletters; and through neighbors reporting one another when permits are not obtained. The findings from this question are summarized in Figure 11. All stakeholder groups interviewed indicated that contractors inform people they need a permit. Over 80% of landowner responses suggested that needing a permit is common knowledge; however, only 40% of state permit agency responses, no federal or state permit issuers, nor contractors communicated that people know they need a permit through common knowledge. While all permit issuers and contractors indicated that people know they need a permit as a result of neighbors reporting one another for not obtaining permits, of the landowners surveyed, none of their responses indicated this as a reason why people know they need a permit. Permit issuer responses credited agencies as a source of informing people they need a permit; no permit applicant responses indicated that agencies were a way people knew they needed a permit. While all permit issuer responses to some degree indicated that people were informed they needed a permit through public notices, no permit applicant responses indicated this as a source. The majority of contractor responses identified contractors (themselves) as the major source of how people know they need a permit. Contractor responses also strongly indicated that people generally do not know they need a permit.

While all responses were highly variable among stakeholder groups, of all permit issuers, the state agencies were the only subgroup to align with all landowner response as to how people know they need a permit. The federal agencies were the only permit issuer subgroup to fully align with all contractor responses as to how people knew they needed permits. Local permit issuer agencies had varied responses from all permit applicant and contractor responses, except for their consensus on contractors as informers, as to how people know they need a permit.

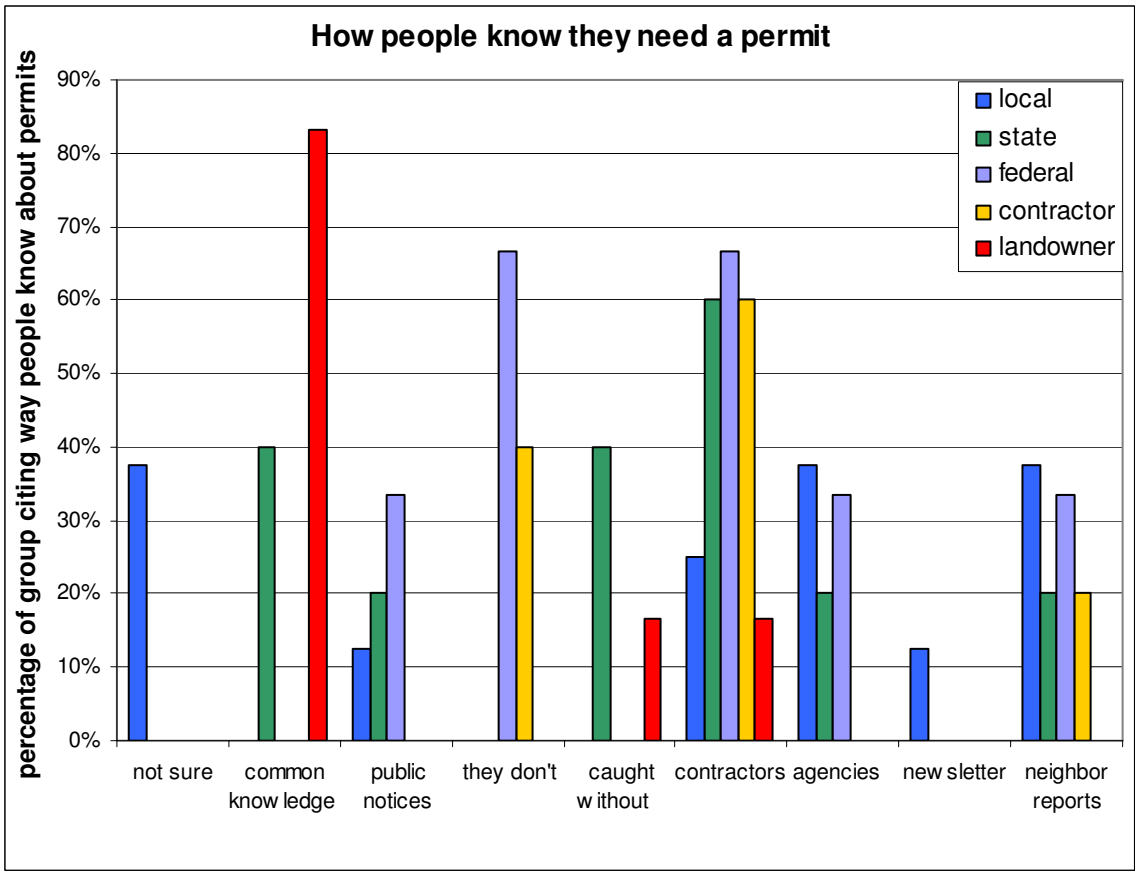


Figure 11: How people know they need a permit

Recommendations

There was high variability between how permit issuers and permit applicants think people know they need a permit to do work on private shorelines. While a strong majority of the shoreline resident responses indicated that needing a permit is common knowledge, very few permit issuers and no contractors agreed. Local permitting agencies responses to how people knew they needed people and responses of permit applicants were highly varied. Among permit issuers, state agencies' responses were most closely aligned with private landowner responses; among permit issuers, federal agencies' and contractor responses were most closely aligned. The only point of consensus among all stakeholder groups as to how people knew they needed a permit was that contractors are informers. If contractors are the only consensus point between all stakeholder groups as to how people know they need permits, it is recommended that agencies pursue communication with contractors when new opportunities or changes occur in the permitting process. Permit issuers may also consider pursuing opportunities to have a more comprehensive understanding of how permit processes are understood and communicated to permit applicants for improved communication and the most effective permit process education outreach programs.

What assistance and resources are available for permit applicants?

Four key resources were identified by the interviewees – agency websites, newsletter, telephone the agency, and the Office of Regulatory Assistance (ORA). The results show a clear perceived lack of

resources from the applicant's viewpoint, as shown in Figure 12. Only 17% of landowners interviewed indentified any assistance at all (ORA and agency websites). Contractors fared slightly better, with just fewer than half (40%) also identifying ORA and agency websites as resources. Clearly, no applicants believe that agencies provide proper assistance by phone. The permit issuers had a different viewpoint, generally identifying resources more often than applicants. A full 80% of state agency interviewees identified ORA as a resource. As ORA is a state entity, this is not surprising. That the local agencies did not identify ORA is also not surprising, as ORA mainly focuses on providing assistance with permits that are applicable statewide. However, it should be noted that ORA does give some information on standard local permitting processes.

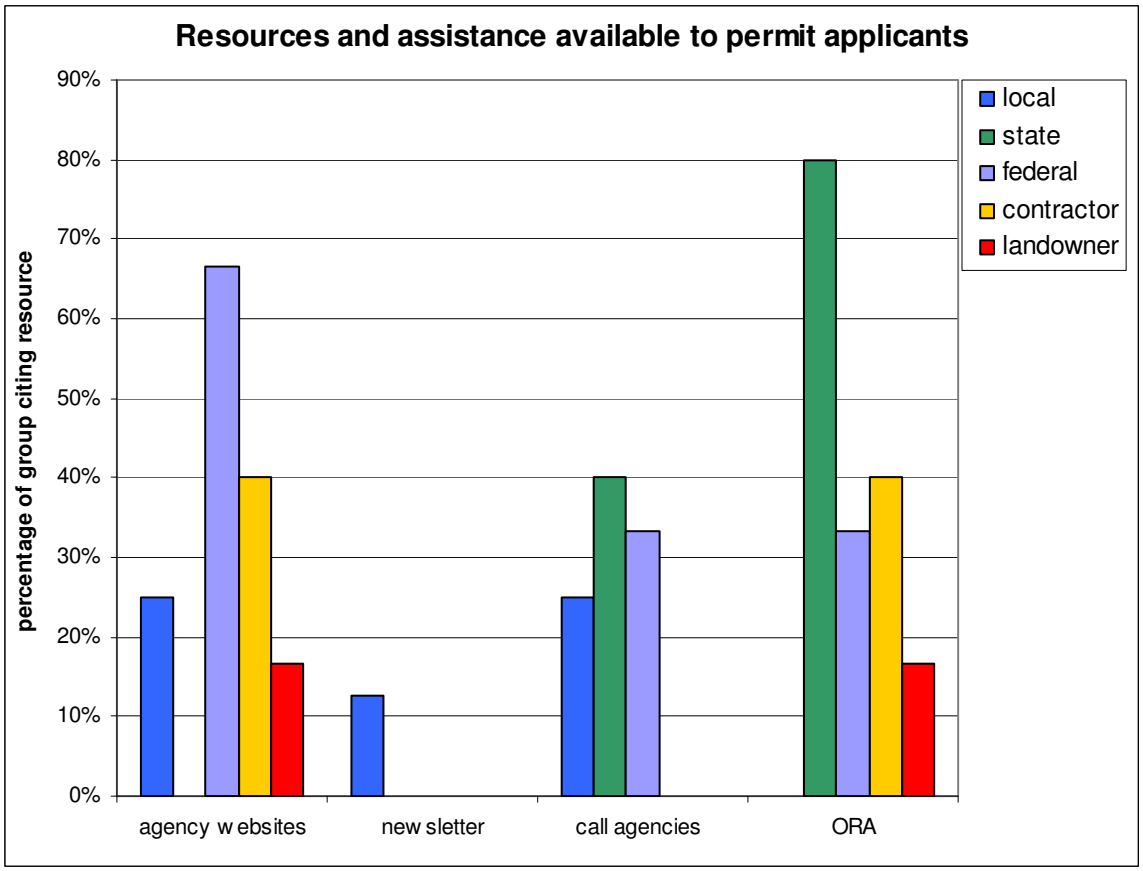


Figure 12: Resources and assistance for permit applicants.

Recommendations

Education and outreach is needed to inform landowners, contractors, and consultants about the existing resources available to them. Additionally, many interviewees, while identifying websites and phone services as resources, also conveyed a lack of organization and access from these sources. Agencies should strive to clarify the information on their websites and make navigation simple for the public citizen. Access to permit issuers via telephone should be expanded to provide much needed communication between applicant and issuer. This was identified as a source of frustration among applicants. Of course, the above recommendations are in essence staffing issues, which may be constrained by budgets. Many agencies are overworked and backlogged due to lack of staff; this was identified as a major bottleneck in the process in Figures 2 and 3.

[To landowners:] Does your property have an alternative shoreline design? [To contractors and consultants/designers:] Have you designed and/or constructed any alternative shoreline designs? Why or why not?

In Figure 13, the set of bars on the far left indicates the percentage of contractors and consultants who have designed alternative shorelines and the percentage of landowners that have an alternative shoreline. Given those answers, the remaining bars indicate reasons why contractors and consultants *have* designed alternative shorelines and reasons why landowners *have not* installed alternative shorelines. Since we sought out companies most of whom we knew were involved in alternative shoreline design and construction, 100% of them had experience with such designs. However, it is difficult to determine the reasons why they chose do so. That only 20% of contractors identified agency influence as a driving force implies that there is a communication problem between contractors and permit issuers. This may be changing as our interviews indicated a strong trend among agencies towards requiring alternative shoreline design. Among landowners, the main reasons why they did not install an alternative shoreline on their property were loss of property and cost (50% each). Erosion proved to not be much of a factor, with only 17% identifying it as a barrier (Figure 13). Indeed, if alternative shorelines are designed properly on a site without extreme exposure, erosion is not an issue.

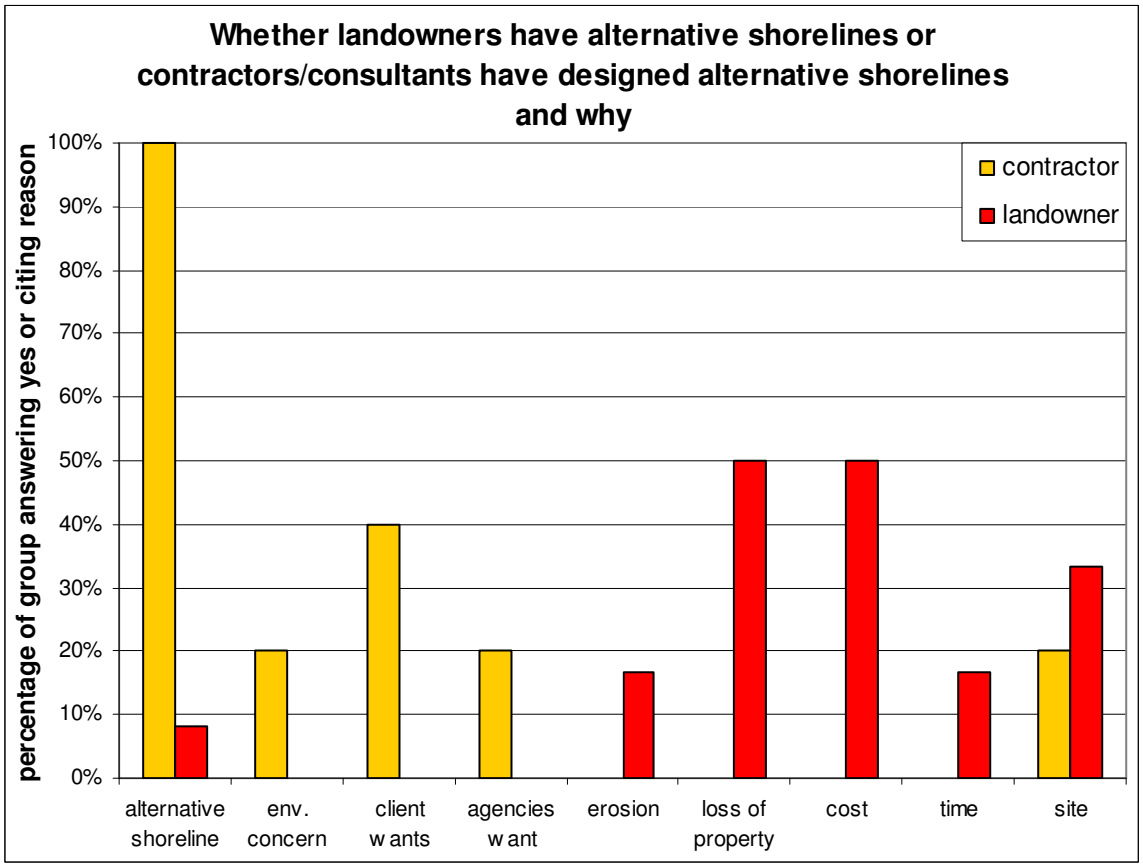


Figure 13: Participation in eco-friendly shoreline design.

Recommendations

Perhaps the biggest impediment to increasing the amount of soft shoreline on Lake Washington is the loss of property entailed in replacing a bulkhead with a beach. This is a contentious issue. In some cases, landowners are very wealthy and have 100 feet of land between their house and the water's edge, and could easily convert some property from lawn to beach. In other cases, the landowner's house and property is their major asset, and if the house is close to the water's edge, they may lose up to half of their lawn, with potential for decreased property value and loss of some functions the lawn provides. Needless to say, the property owners will do anything they have to protect their investment if they perceive its value as threatened. One option to alleviate this problem is to allow a certain amount of fill in the lake in order to minimize the loss of lawn on properties that are close to the water's edge. Currently, fill in the lake is regulated by the USACE. A change in USACE policy could stipulate a certain amount of fill for landowners installing an alternative shoreline. Some potential barriers to this are: determining exact site requirements and fill specifications that apply to all projects, as every site is unique; how to handle a situation where the landowner installing a beach is bordered by a neighbor with a bulkhead – there may not be a way to stabilize the fill to prevent erosion where the two properties abut. However, it would be advantageous to tackle these issues in order to remove one of the most significant bottlenecks to promoting soft shorelines.

What are the benefits of alternative shoreline designs?

Contractors unanimously noted the environmental and aquatic concerns as the benefits of alternative shorelines, but only 33% of landowners noted this (Figure 14). Additionally, 33% of landowners said there were no benefits of alternative shorelines at all. 60% of contractors and consultants found alternative shorelines to have aesthetic benefits. These results suggest a familiarity with alternative shorelines among contractor and consultants, understanding how they can benefit the ecological functions of the lake as well as additional benefits. The results also suggest a lack of familiarity with alternative shorelines among landowners, and a possible belief that alternative shorelines are a poor choice.

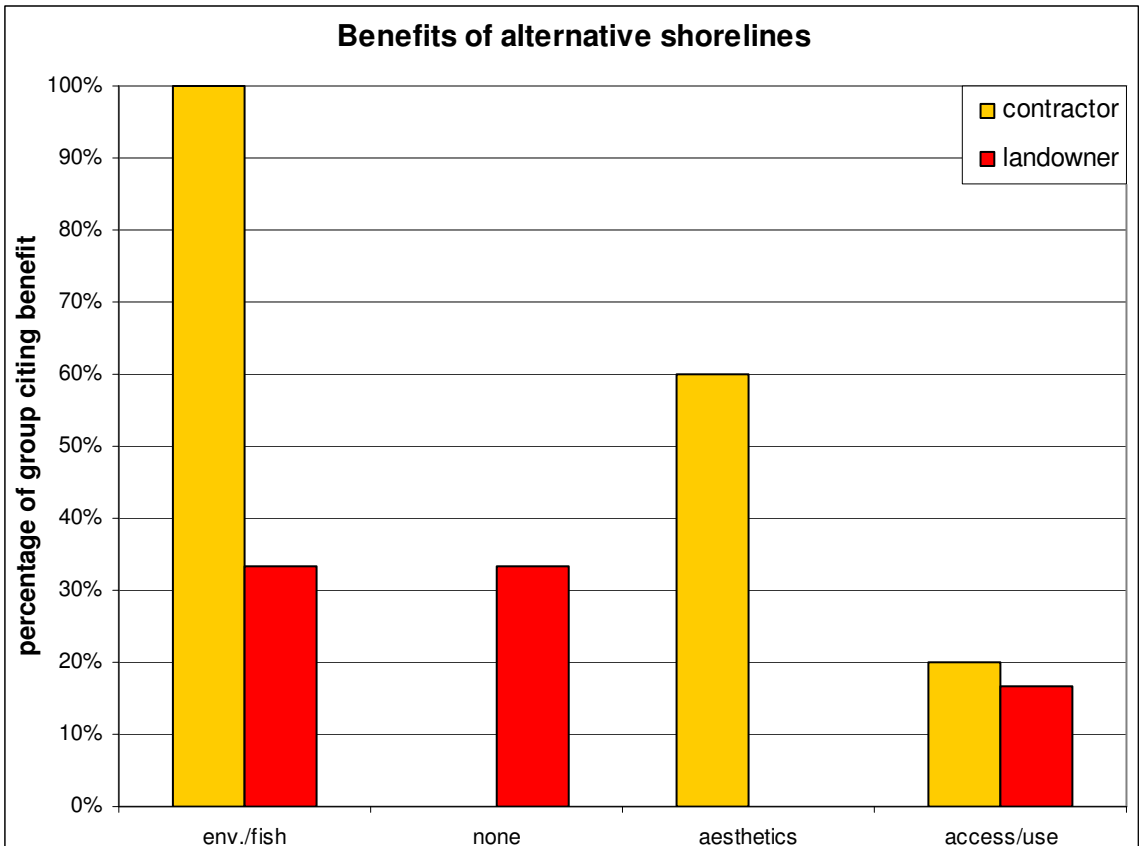


Figure 14: Benefits of eco-friendly shorelines.

Recommendations

Shoreline landowners need to be informed about alternative shorelines and their environmental benefits and given examples that show them how aesthetically pleasing they can be. The City of Seattle's Living Shorelines *guidebook will provide this to landowners provided it is widely accessible. The guidebook is not overly technical or dry and provides educational information as well as design ideas and examples. Other jurisdictions around the lake should inquire about it's adaptation for their use.*

How do the following factors affect the choice between traditional and alternative shoreline designs?

- ***Effectiveness of shoreline design at controlling erosion***
- ***Maintenance***
- ***Cost***
- ***Permitting***
- ***Aesthetics***
- ***Lake accessibility and use***

Figure 15 shows the various reasons why contractors and landowners thought alternative shorelines were a better design options. Surprisingly, even though no landowners identified aesthetics as a benefit

in Figure 14 above, when asked specifically about aesthetics as a possible benefit of alternative designs, 75% of landowners thought they were better than the traditional designs. A majority of landowners thought alternative designs provide better access to the lake, but the majority of contractors thought otherwise. There does appear to be a belief among landowners (83%) that alternative shorelines are worse than bulkheads at preventing erosion. There are also a significant percentage of all applicants who believe alternative shorelines are more costly and are harder to permit.

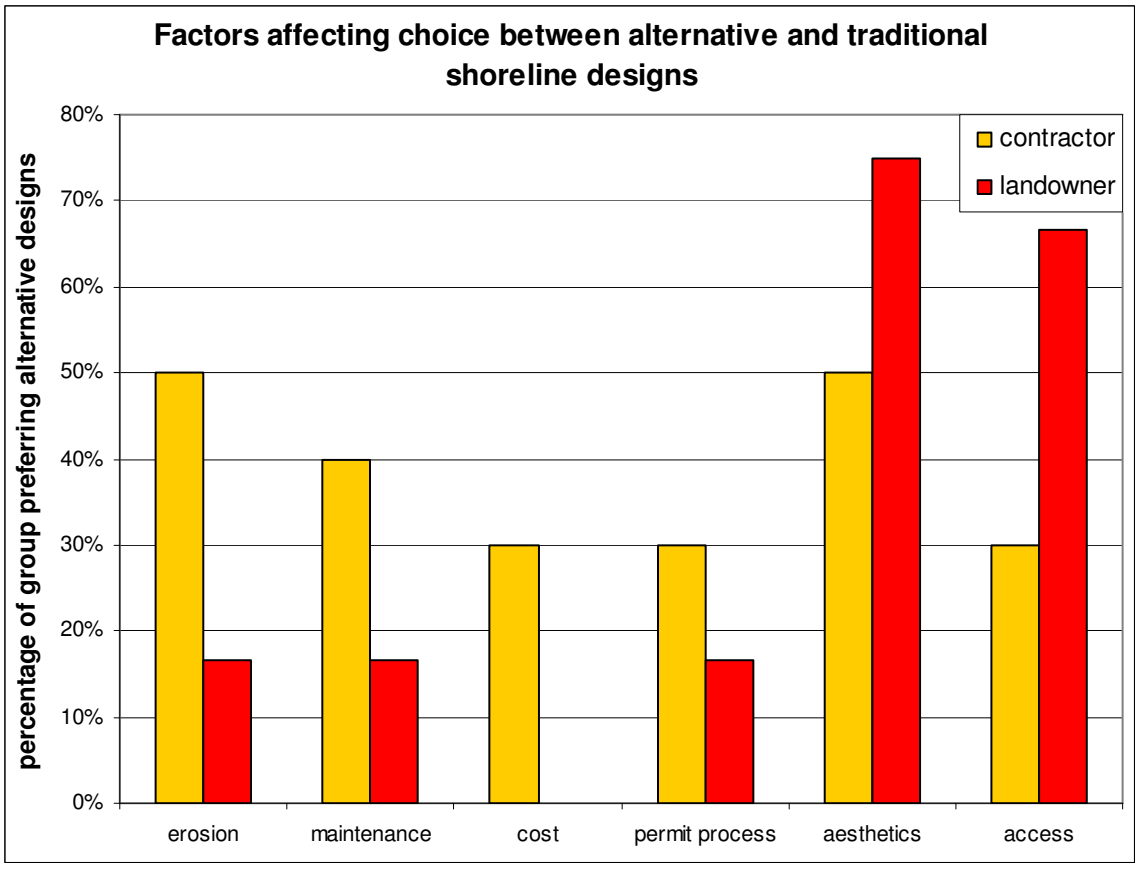


Figure 15: Factors affecting the choice between alternative and traditional shoreline designs.

Recommendations

Once again, landowners need to be educated and informed about alternative shoreline design – when designed correctly, it should provide adequate protection against erosion. With the introduction of the USACE programmatic (SPAP), permitting will be streamlined for most alternative designs, but since every site is unique and may not be able to fully meet the requirements for the programmatic, we would also like to see preferential treatment under Individual Permits given to those cases where an alternative design is implemented yet is unable to fall under the programmatic's umbrella. An even better way to streamline the permitting of alternative designs would be for permitting agencies at the federal, state, and local levels to coordinate so as to have one set of guidelines for alternative designs so that if one agency approves the design, it will be automatically approved at the other levels. This will take time and effort to accomplish as each agency is bound by different laws and regulations, but is certainly feasible and would result in a significant reduction in time and hassle to the applicant, making alternative designs preferable to traditional designs.

Deliverables

To accomplish the goals and objective of our project we developed several deliverables. In addition to the policy analysis included in this report, we created educational resources for permit applicants and issuers, and we also presented our findings at the WRIA 8 Shoreline Issue Meeting, Spring Shoreline Planners Meeting in April 2008 and at the University of Washington Environmental Management Symposium in May 2008.

Educational Resources

One of the key findings from our analysis is that educational resources are needed for all stakeholders in the permitting process, including permit issuers and applicants. In response, our team developed a schematic of the step-by-step permitting process for private landowners interested in implementing an eco-friendly shoreline designs. The schematic is also a helpful tool for permit issuers to gain a better understanding about how their particular agency fits into the entire permitting process. As a separate deliverable, our team compiled and will deliver informational packets to permit issuers involved in the shoreline permitting process for Lake Washington. The packets were intended to provide educational resources to enhance permit issuers' understanding of the step-by-step permitting process navigated by applicants, as well as to inform them of the most important findings and recommendations from our interviews and policy analysis.

The Schematic

The Governor's Office of Regulatory Assistance (ORA) provides schematics on individual permits, but a schematic of the entire process for shoreline permits did not previously exist. We produced a schematic that provides a broad overview of the shoreline permitting process for construction and restoration work along Lake Washington residential shorelines (Figure 16). The schematic underwent many iterations of review by the ORA, permit issuers at all levels, contractors, and consultants to ensure the process is accurately represented. Agencies have expressed great interest in this product as a printed and online resource they can provide to the public. For these purposes, a one-page guide was written to explain how to use the schematic (see text box). The schematic and its accompanying text are also included in the City of Seattle's *Living Shorelines* guidebook and in the informational packets for permit issuers.

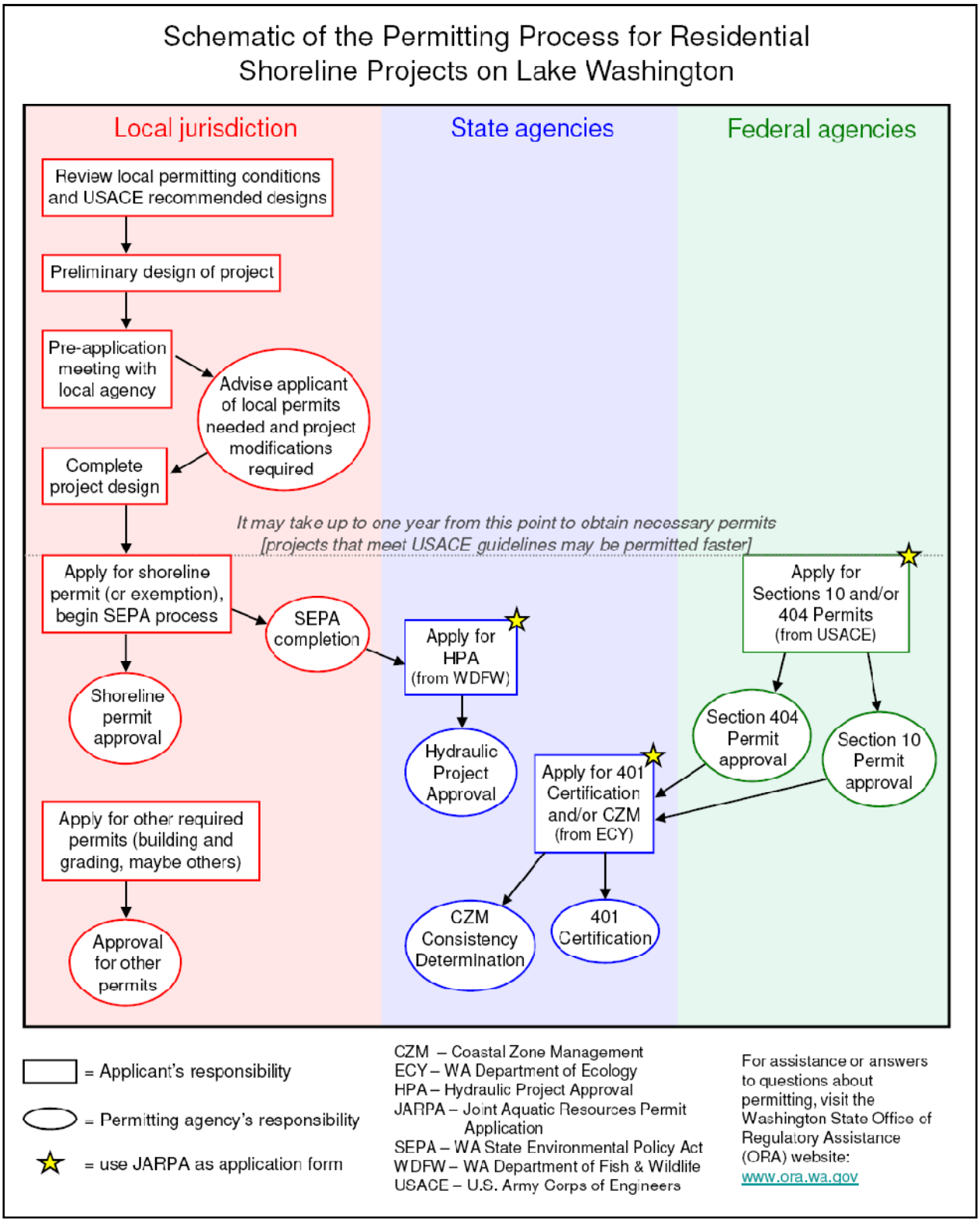


Figure 16: Schematic of the permitting process for Lake Washington residential shoreline projects

Lake Washington Shoreline Permitting Process Schematic

Schematic Design: This schematic provides a broad overview of the shoreline permitting process for construction and restoration work along the Lake Washington shoreline of private residences. The permitting process for shoreline work is not straightforward, and it can be difficult to determine what information and permits are required. This often leads homeowners to hire consultants or contractors to take care of the permitting for them. The involvement of professionals is helpful, especially in providing the required plans and evaluations required. However, it is still important for homeowners to understand the overall process and be involved in the design and permitting of their shoreline project. Homeowner communication with the permitting agencies often facilitates a faster, smoother permitting process, which saves time and money.

Permitting Process: The shoreline permitting process involves federal, state, and local agencies. Since there are many local jurisdictions around Lake Washington, the local permitting process varies depending on the location of the residence. Some of the state and federal permits require prior approval of other permits or certifications. In addition, the projects proposed by residents and/or their contractors or consultants will vary. For these reasons, there is no single step-by-step process of obtaining the required permits for a shoreline project. While the schematic does not walk applicants through every permutation of the permitting process, it provides a general overview of the major permits needed, the agencies issuing the permits, and the time required. Homeowners can use the schematic as a guide because it directs them to the appropriate agencies and informs them what the agencies expect and require. This schematic is a general overview of the permitting process required for shoreline construction and restoration projects, but it does not include every single form, evaluation, and permit that is required for a specific project. It provides enough guidance to ensure that the appropriate agencies will be contacted. Discussions between the applicant and the agencies should fill in the details.

The project design phase, which should include a pre-application meeting with the local jurisdiction planning office, provides the best opportunity for applicants to increase the speed and ease of the overall permitting process. Agencies at all levels of government are required to issue permits based on existing laws. For instance, the U.S. Army Corps of Engineers (USACE) must consider how a proposed project will affect habitat for juvenile Chinook salmon in Lake Washington because they are protected under the Endangered Species Act. Local jurisdictions look to their Shoreline Master Plans, which establish regulations to protect the health and usability of water bodies. Since each agency is responsible to carry out related but different regulations, is it important for applicants to work with agencies to develop a shoreline project design that meets the needs of the residents and can be permitted by the agencies. Agencies are generally able to approve more eco-friendly shoreline projects faster and with fewer revisions than more traditional projects. Nevertheless, the process can be slow; to avoid hassle and expense, the applicant should start the permitting process early to help ensure that the necessary permits and approvals are obtained in time for work to occur within the approved work window. Shoreline work is allowed during work windows that are set to minimize disturbance to wildlife. Generally work is done during the summer, but the dates of work windows can vary by the type of work being done. The USACE permits often take the longest amount of time to be approved (up to one year), but this time can be significantly shortened by proposing a shoreline design that fits USACE guidelines. Discussions with the local permitting agency can help applicants understand the shoreline design principles that are encouraged by all of the agencies.

Directions for Using the Schematic: To use the schematic as a guide to the permitting process, first review it as a whole, using the key to understand the significance of the symbols and acronyms. Rectangles show tasks for which applicants are responsible, while ovals show what the agencies will do. Arrows point from an activity that must be completed before another activity can begin; note that some of these chains involve information passing back and forth between applicants and agencies. Along the way, agencies will inform the applicant of additional information needed and which permits are required for the specific project proposed. Keeping the lines of communication open between the applicant and the agencies will help speed things along.

Informational Packets for Permit Issuers

Because our study produced key findings and recommendations relevant to permit issuers, we will deliver informational packets to Lake Washington shoreline project permit issuers. These packets will contain a cover letter, an executive summary of our study including key findings and recommendations, and a copy of our schematic. We hope that the delivery of these informational packets will encourage permit agencies to consider our recommendations as well as come up with their own ideas on how to improve the permitting process. In addition, the packets will guide agency personnel to our website, where they can download our full report, obtain an electronic copy of the schematic so they can print it and provide it to permit applicants, and find links to other relevant resources.

Policy Analysis

Problem Statement
Over 70% of Lake Washington's shoreline is armored by bulkheads and riprap, resulting in a lack of adequate nearshore habitat for rearing juvenile Puget Sound Chinook salmon, which are listed as threatened under the U.S. Endangered Species Act.

Policy Objectives
The purpose of this analysis is to evaluate which policy options are most effective at reaching the following objective: To increase suitable nearshore habitat for juvenile salmon in Lake Washington by replacing private residential hardened shorelines with bio-engineered eco-friendly shorelines.

Policy Options
Through reviews of the existing statutory and regulatory requirements and numerous structured stakeholder interviews, we have identified nine specific policy options that could be implemented to increase eco-friendly shoreline projects on Lake Washington. The policy options can be placed into the following four categories:

1. Status Quo/Increased Enforcement: No significant changes are made, or there are additional efforts to monitor and enforce the existing code.
2. Education, Outreach, and Collaboration: Efforts are directed to educate shoreline homeowners or shoreline permit reviewers on the technology, design and permitting process for eco-friendly shoreline projects.
3. Financial Incentives: Shoreline landowners can participate in a cost-share program or fee waiver program to help recover costs from eco-friendly shoreline projects.
4. Changes in code/Streamline of Environmental Review: Various policy options that would make it easier to complete the shoreline permit process, such as streamlining, building code tradeoffs, and code consistency.

Policy Criteria
Each policy options is evaluated on criteria that addresses how cost-effective and politically viable each policy option is. The following criteria are used to evaluate the policy options that we propose:

- Increase eco-friendly shorelines: Will the policy result in an increase in eco-friendly shoreline renovations on Lake Washington?
- Program implementation costs: Will the policy require additional funding for staffing, outreach, etc.? Compared to the environmental effectiveness of the policy option, is it cost-effective?
- Adequate environmental review: Does the policy promote adequate environmental review? Could there be unforeseen loopholes? Is the environmental review so thorough, stringent and costly that homeowners are dissuaded from shoreline renovation or complete the project without a permit? This is measured in minimal, stringent, and balanced. A balanced environmental review is the most desirable.
- Political viability and equitability: Will the policy require additional legislation at the state or municipal level? Is this likely to pass given budgetary and political considerations? Is this policy fair to both shoreline residents and the tax paying public?

Policy Analysis

In the following section we evaluate the benefits and drawbacks of the policy options based on the criteria we have established. This analysis is based on our current understanding of the statutes and regulations governing shorelines on Lake Washington, as well as from the 27 structured interviews we conducted with various stakeholders (see Methods and Interview Results sections). The analysis is by no means definitive, and is not intended to be overly specific, but it gives a sense of which policy options are likely to be most feasible and effective at achieving our policy objective. The bureaucratic, political, and ecological conditions vary across Lake Washington, so some generalizations had to be made. Table 1 offers more specific assessments of each policy option weighted by each of the policy criteria.

Status quo

- The regulatory system in place with the new programmatic guidelines issued by USACE and NOAA.
    - *Benefits:* The status quo policy is politically feasible, and is relatively effective at ensuring that new hardened shorelines are not installed.
    - *Drawbacks:* Shoreline landowners may be dissuaded from pursuing renovation of shoreline structures because the permitting process is too stringent and takes too long. Landowners may perceive that eco-friendly shoreline costs are imperative. Monitoring and enforcement are currently inadequate, as our interviews with landowners, contractors, and consultants indicated that illegal (non-permitted) work is common. A permitting process that is too complicated and prescriptive can have inadvertent consequences of contributing to the resistance of landowners and contractors to even participating in the permitting process.
- Increase enforcement of existing code: Local jurisdictions increase patrol of shorelines and penalties are more substantial.
    - *Benefits:* An unknown number of unpermitted lakeshore renovations would be discovered and mitigated for. This policy option would catch projects that would never be allowed under code, and are probably the most damaging to the environment.
    - *Drawbacks:* This policy would not address the problem of why the permitting process is costly and timely, and may require additional staff and resources that may not be available to agencies. It could also contribute to an adversarial relationship between regulatory agencies and many landowners, contractors, and consultants. Resistance to compliance, anger, and mistrust could be unintended consequences of this policy option.

Education, Outreach and Collaboration

- Homeowner/contractor education: Local, state, and federal agencies would provide more technical and non-technical information on the benefits and costs of eco-friendly shorelines, examples of eco-friendly shoreline projects, and sample eco-friendly shoreline designs to homeowners and contractors.
    - *Benefits:* This policy would address one of the major problems leading to reduced effectiveness of the current regulatory system. It would improve the understanding of the benefits of eco-friendly shoreline designs and may encourage landowners to choose to implement eco-friendly shorelines, thus increasing juvenile salmon habitat. In addition, this outreach would show landowners that eco-friendly shorelines provide additional benefits, such as improved safety and access, increased wildlife habitat, and more aesthetic appeal. By educating contractors on the technical requirements needed

for eco-friendly shorelines, the permitting process may be improved without forgoing adequate environmental review.
    - *Drawbacks:* Environmental review may still be perceived as too stringent and costly by homeowners. Educating all lakeshore homeowners across all Lake Washington jurisdictions would require a coordinated social marketing effort, which would require funding and interagency coordination.
- Agency Education and Collaboration: Planners and permit reviewers at the local, state, and federal level would be educated on eco-friendly shoreline designs and the overall permitting process from the local to the state and federal level. Permit issuing agencies at all levels would also communicate with other on a regular, ongoing basis to share ideas and facilitate greater cohesion among the permitting agencies.
    - *Benefits:* This policy would promote consistency among permit reviewers and ensure that agencies understand the requirements of all of the agencies involved and what the entire permitting process entails, allowing them to better advise permit applicants about shoreline designs and facilitate a smoother permitting process. This policy would be politically viable and would not be too expensive to implement. This process would maintain a high level environmental review.
    - *Drawbacks:* This would require cross agency collaboration between the local, state, and federal levels, which can be difficult to orchestrate. Environmental review may still be perceived as too stringent and costly.

Financial Incentives

- Public Subsidy: Tax incentives or grants for homeowners choosing to implement eco-friendly shorelines. Current programs such as the Public Benefit Rating System could be enhanced to incorporate shoreline restoration.
    - *Benefits:* Landowners would be more willing to implement eco-friendly designs if a tax break or grant covered some portion of the financial cost of incurred. Environmental review would be very substantial since public funding would be used.
    - *Drawbacks:* This may be politically infeasible as it is seen as unfair to give tax breaks or financial subsidies to wealthy shoreline landowners. Also, in order to make a difference in the number of eco-friendly shorelines implemented, the amount of the tax break or grant would have to be significant enough to be an incentive for people who would otherwise not choose eco-friendly shoreline design options.
- Fee Waiver or Reduction: Applicants who implement eco-friendly shoreline designs would not have to pay permit application fees at the local, state or federal levels. A related financial incentive would be creating a wider variety of conditions under which shoreline project applications would be eligible for Biological Evaluation exemption under the USACE/NOAA Lake Washington Shoreline Protection Alternatives Programmatic (SPAP).
    - *Benefits:* A waiver or reduction in fees for application review may provide a small incentive for applicants to implement eco-friendly shoreline designs. This policy would not be politically contentious, and should not greatly impact the revenue stream for local municipalities. Applicants may be more willing to ask for consultation from local planners if the review fee is not cost-prohibitive. Biological Evaluations are very expensive (on the order of $10,000), so waiving the requirement for them could be a significant financial incentive for landowners to choose eco-friendly shoreline designs. Currently, the SPAP allows the Biological Evaluation to be waived for only a few specific project designs.

- *Drawbacks:* Few interviewees identified this as an important issue, and those that did focused on the large municipalities such as Seattle and Bellevue. The overall impact of this policy would have a very marginal impact on the ease of the permitting process unless it was combined with another policy. Landowners would have to be aware of the financial incentives available in order for them to be an effective encouragement for eco-friendly shoreline implementation.

Streamline/Changes in Code

- Additional Permit Exemptions for eco-friendly shoreline designs: In consultation with state and federal agencies, local agencies would create programmatics similar to the SPAP issued by USACE in December 2007. If certain eco-friendly shoreline criteria were met in the initial designs, then the review of the project application would be streamlined.
  - *Benefits:* This policy may greatly reduce permitting time and provide common eco-friendly shoreline templates that would be consistent throughout Lake Washington. Programmatics could be included in the Shoreline Master Plan updates that are currently taking place.
  - *Drawbacks:* Local jurisdictions and state agencies may have different priorities. If a programmatic is too prescriptive, contractors may decide to apply for an individual permit, regardless of the time and costs it takes for approval. On the other hand, if a programmatic is too general, it may create loopholes for shoreline projects that are not truly eco-friendly.
- Local Code Consistency: Require that shoreline codes for Lake Washington municipalities are consistent with each other and with state and federal standards in eco-friendly shoreline design requirements and permit application processes. This policy would also require that all municipalities would accept a standardized permit application such as the JARPA or a modified JARPA.
  - *Benefits:* Consistent use of the JARPA would mean that each agency receives the same information at the same time, facilitating better coordination among the involved agencies and the creating the opportunity for a more streamlined permit process. Additionally, requiring that there is consistency among all Lake Washington municipalities regarding what construction is permitted may allow for long-term monitoring of the environmental effectiveness of eco-friendly shorelines.
  - *Drawbacks:* Each municipality has a Shoreline Master Plan and other building codes that are consistent with political and ecological conditions unique to each geographic region. Different municipalities may want to require more thorough permit review process because they have the staffing, technical resources, and mandates to do so. Requiring a one-size-fits-all approach may not be the most appropriate.
- Tradeoffs or Flexibility in Design: If landowners implement eco-friendly shorelines plans, certain other code requirements such as building setback would be less stringent.
  - *Benefits:* Landowners or contractors may be given an incentive to implement an eco-friendly shoreline project on construction or renovation sites in which they had not originally planned to do so.
  - *Drawbacks:* Allowing flexibility in other building codes may compromise environmental or safety standards that may not be completely mitigated by installing an eco-friendly shoreline.
- Change Fill Restrictions: Allow eco-friendly shoreline projects to place more shoreline fill than is currently allowed.

- *Benefits:* This would allow eco-friendly shoreline restoration projects on sites that have a very steep gradient and would require more fill than is currently allowed. Allowing more fill may eliminate the need to refill the site as regularly.
- *Drawbacks:* Fill standards were developed for a reason, and may cause unforeseen environmental impacts.

Table 1: Policy analysis matrix.

			POLICY CRITERIA			
			Environmental Effectiveness	Program Cost	Viability	Environmental Review
POLICY OPTIONS	Status Quo	Status Quo	Low	Inexpensive to implement new RGP guidelines.	Easy: Decisions by NOAA and ACE already approved.	Stringent: Extensive Review on all levels.
		Enforcement	Low/Medium	Moderately expensive: More Staff Time at Local Level Required	Somewhat difficult politically. May be seen as unfair to lakeshore landowners	Stringent
	Education/ Outreach	Landowner/ Contractor education	Medium/High	Moderate	Easy: Need program funding.	Would improve permit application process while maintaining adequate review.
		Agency Education	Medium	Moderate	Moderate: Need program funding and agency collaboration.	Would improve permit application process while maintaining adequate review.
	Financial Incentives	Cost Share Program/ Matching Fund	High	Very expensive	Very difficult politically. Seen as unfair to offer tax cuts to very wealthy	Stringent: Projects would be thoroughly reviewed to get public funding.
		Fee Waiver/Fee Reduction	Low	Moderately Expensive: Reduced revenue	Easy: Local jurisdictions drop fee based on basic criteria.	Stringent: Project would be thoroughly reviewed to get fee waived.
	Code Changes/Streamline Permitting Process	Additional Streamline	Medium: Depends on whether designs fit within the designated exemptions, or will be used as loopholes.	Inexpensive	Difficult: Agencies want to maintain oversight.	Minimal: Streamlining would reduce review but may allow unforeseen loopholes.
		Building Code Tradeoffs	Medium	Inexpensive	Moderate: Depends on local jurisdiction.	Balanced/Stringent: Planners may be more critical to allow tradeoffs.
		Change Fill Restrictions	Medium	Inexpensive	Difficult: WDFW and ACE may not approve of changes.	N/A
		Local Code Consistency	Medium	Inexpensive	Difficult: Agencies want to maintain oversight.	Balanced: Similar protocols would allow better understanding at all levels.

Recommendations

Based on the relative benefits and drawbacks of the previously explained policies, we believe three policy options are best suited to meet the outlined policy objectives:

- Promote collaboration and coordination between the local, state and federal government agencies that regulate shoreline construction on Lake Washington.
- Streamline the permit process for eco-friendly shoreline designs at the state and/or local level.
- Increase education and outreach efforts to Lake Washington property owners and shoreline contractors.

We feel these three specific policy options will work synergistically to help alleviate the current permitting lag in the regulatory system, and will help make landowners more aware of the multiple benefits of eco-friendly shorelines. The recommended policy options work in concert with each other, and are not meant to stand-alone. In the following section we explain how our content analysis' key findings give rationale for the recommended policy option, provide hypothetical processes for implementing the policies, as well as outline the various inputs, outputs and possible outcomes that could be measured.

Interagency Collaboration and Coordination

Rationale

In our interviews, a common theme among all respondent was the lack of overall coordination among agencies that have regulatory oversight over Lake Washington shorelines. Many agencies had knowledge about their own particular mandates, but had little understanding of the process and mandates of the other agencies involved in the permitting process. As our findings show, there is tremendous inconsistency among permit issuers regarding their understanding of the effectiveness of eco-friendly shorelines, whether or not they streamline the permitting process, and what resources are available for landowners who are interested in eco-friendly shorelines. Perhaps the most obvious need is a working definition of what an eco-friendly shoreline is.

Sixty percent of permit applicants thought that permit reviewers were not as familiar with the specific permitting process associated with shorelines (as opposed to other land use permits) as necessary for timely review, and even less familiar with eco-friendly shoreline designs. At least one interviewee from each subgroup except the federal agencies cited inadequate interagency coordination as a bottleneck.

This policy recommendation would encourage local jurisdictions to be more consistent with one another, and would prepare permit applicants for subsequent review at the State and Federal level.

Process

In order to promote collaboration and coordination among permit agencies, ECY could require that local jurisdictions include a section that defines eco-friendly shorelines and associated best management practices in their SMP updates. The SMP update meetings are an ideal environment in which to generate discussion between agencies. In addition, WRIA 8 could continue to coordinate workshops and training sessions regarding best management practices. However, WRIA 8 would need additional

resources to support a more robust agency education and coordination program, especially in the early stages of implementation.

Inputs, Outputs and Outcomes
The inputs for this policy would be additional staff hours allocated to this program, and/or associated program implementation costs. Outputs would be measured by the number of workshops or training sessions held, as well as the number of local jurisdictions with consistent eco-friendly shoreline provisions in their SMP updates and local code. As with all policy options, the outcomes would be increased nearshore habitat for juvenile salmon.

Permit Streamline

Rationale
The stakeholder interviews revealed that permit applicants commonly complain that the permitting process is confusing and requires unnecessarily large amounts of time and money due to redundant environmental reviews. The majority of permit issuers reported that the review chain is a bottleneck in the permitting process, characterized by permit applications not receiving review until the applicant has received a permit or certification from another agency (referred to earlier as the review chain). A related issue, insufficient interagency coordination, was indicated as a bottleneck in the permitting process by some members of every stakeholder group except federal permit issuers. Design revisions were reported as a bottleneck in the process by some local and state permit issuers as well. While all federal permit issuers interviewed reported that there is a shortcut in the permitting process for eco-friendly shorelines (referring to the Lake Washington Shoreline Protection Alternatives Programmatic (SPAP) in place starting December 2007), few of the local and state permit issuers interviewed agreed. Half of the contractors and consultants group said there were shortcuts, and few of the private landowners agreed. More than half of the permit issuers interviewed suggested streamlining the permitting process when asked what improvements they would like to see in the permitting process. All of the contractors and consultants suggested either streamlining the process or centralizing it so that one agency would issue all necessary project permits. While the latter suggestion is not feasible, streamlining the permitting process is a popular idea among all stakeholder groups. It should be noted that the interviewees independently suggested streamlining.

Streamlining the permitting process could save time and money for permit applicants and issuers. Applicants may be exempt from certain environmental evaluations for which they are currently responsible, often costing more than $10,000 in consultation fees. This would leave landowners with greater financial resources to dedicate to shoreline restoration projects. The time savings to applicants would increase their satisfaction with the permitting process. Meanwhile, environmental review would not be diminished and may actually improve due to an increase in the consistency of eco-friendly project criteria between federal, state, and local jurisdictions around Lake Washington.

It is important to carefully consider the standards for projects eligible for a streamlined permitting process. They should ensure that the legal responsibilities of the agencies involved are fulfilled. They should not be so general that loopholes are created, but not so prescriptive as to be impossible to implement for a large fraction of shoreline properties. The goal is to increase eco-friendly shorelines around Lake Washington, and this will only happen if private landowners and their hired professionals are able to design eco-friendly shoreline projects that are satisfactory (affordable and pleasing) to the

landowners and will be permitted by all of the agencies involved. An agreement between the permit issuing agencies at all levels would go a long way to ensuring that the permitting process itself does not constitute a barrier to private landowners implementing eco-friendly shorelines.

Process

Local agencies would work with state (WDFW and ECY) and federal (USACE and NOAA) agencies to create a programmatic similar to the SPAP. A set of guidelines for eco-friendly shoreline designs would be provided, and project applications to the local agency adhering to these guidelines would be granted shortcuts in the permitting process at the state and federal levels. One way this might be implemented is for the local permit agencies to submit their guidelines as an application to the state and federal agencies for review. If the guidelines meet the requirements for shoreline projects at the state and federal level, the state and federal agencies could pre-approve or provide shortcuts to all projects that fall under the local guidelines. The shortcuts would have to be agreed upon by the agencies, but could include waivers for some environmental reviews and expedited permit application reviews. The state and federal agencies could review the programmatics on a regular basis, and work with the local agencies to recommend changes in the programmatic as necessary.

Inputs, Outputs and Outcomes

Streamlining the permitting process for eco-friendly shoreline projects on Lake Washington would require a serious commitment from USACE, NOAA, WDFD, ECY, and the local permit issuers. It is possible for some local permit agencies to participate while others choose not to, but the state and federal agencies would have to be on board to make the efforts worthwhile. The resources required from the agencies involved would primarily be work hours; the time commitment would depend on how easily the group can come to an agreement on guidelines for eco-friendly shoreline designs and determine exactly how the streamlined permitting process would work. The outputs of this policy would include agreements between local, state, and federal permitting agencies, guidelines for eco-friendly shoreline designs, and plans for how to process the applications that fit under the guidelines. It is a daunting task to develop a new programmatic, but as we found in this study; the status quo is not producing many eco-friendly shoreline projects. A streamlined permitting process, combined with education and outreach aimed at Lake Washington landowners, is more likely to produce the environmental outcome of increased nearshore habitat for juvenile salmon.

Outreach and Education to Landowners/Applicants

Rationale

A lack of knowledge among landowners about eco-friendly shorelines and shoreline permitting processes was identified in our study. In addition, a lack of resources on eco-friendly shoreline designs and shoreline permitting was identified.

Eco-friendly shorelines are not being implemented as frequently as traditional shorelines simply because landowners are not demanding them. Contributing rationale for this occurrence may include a lack of knowledge and/or misconception on:

- what eco-friendly shorelines are
- why eco-friendly shorelines are necessary for supporting lake ecological processes
- eco-friendly shorelines and their ability to protect the shoreline from erosion, and the desire to stick with what has traditionally “worked” on their shoreline.

This inertia is difficult to reverse; it requires a change in landowners' attitudes about their shorelines.

The complex nature of the permitting process has led landowners to rely on their contractors and consultants to aid them through the process. This has resulted in contractors and consultants playing a heavy hand in what kind of shoreline designs are implemented. While some contractors and consultants have encouraged eco-friendly design, not all have yet embraced it. Landowners cannot be expected to handle the technical details of their shoreline design, a basic knowledge of eco-friendly shorelines and their benefits would empower them to request these designs from their contractors.

While permit issuers should heavily discourage traditional (hardened design), this approach promotes negative interactions with permit issuers, having long-term negative effects, and may reduce the intended environmental outcome. It is anticipated that the greatest change in the types of shoreline designs being implemented will come when landowners are informed about what is best for ecological function, health, and personal enjoyment of the lake. Under these conditions it is expected that landowners would demand eco-friendly designs. For this reason it is important to objectively communicate the benefits of eco-friendly shorelines in a manner that resonates with landowner values in a manner that benefits the intended environmental outcomes.

Process

We recommend that agencies take on the responsibility for outreach in order to educate landowners about eco-friendly shorelines and their benefits. An excellent example of this recommendation is the City of Seattle's forthcoming *Living Shorelines* guidebook. Due out this summer, it will be a vital resource for any shoreline landowner planning to perform maintenance on, redesign, or "green" their shoreline as other jurisdictions may not have the means to produce their own guidebooks. The city should take measures to ensure it is readily available to all landowners around the lake. This resource is too important to restrict its access to Seattle shoreline residents.

While the detailed information in the *Living Shorelines* guidebook is indispensable, it is reasonable to assume that landowners will only seek its guidance when they are about to start or have already started their shoreline project. We recommend permitting agencies educate landowners early, before they are attached to a traditional design. Eco-friendly shoreline designs need to be a realistic and apparent option for landowners when they first start to think about their shoreline project.

The early promotion of eco-friendly shoreline designs by local permit agencies may be accomplished through providing educational resources to private landowners. For example, pamphlets, newsletters, or similarly concise materials could be used to communicate a thorough description of eco-friendly shorelines and their benefits to both aquatic life and landowners. A single-page fact sheet developed from the *Living Shorelines* guidebook may provide an efficient starting place. We recommend that the City of Seattle take on this task.

Because there are multitudes of ways to educate private landowners about eco-friendly shoreline designs, we recommend that local permit agencies should collaborate amongst themselves to find the best outreach strategies. We also recommend the agencies evaluate the best media for the disseminating and receiving information whether it is print or internet based. Making information easily accessible will allow it to reach a wider audience.

Inputs, Outputs and Outcomes

The inputs for these and other educational and informative tools are primarily work hours. Although many permitting agencies are understaffed and overworked, this work is vital to improving the ecosystem functions of the Lake Washington shoreline. Once the initial development of tools is complete, issuers need only be aware that the resource tools exist and direct the landowners to them.

The outputs produced from this recommendation include documents and other educational resource tools. The effectiveness of these outputs could be evaluated by surveying permit applicants to learn whether they received the resource tools and if they influenced their decision in choosing a shoreline design.

The outcome of this recommendation would be increased numbers of eco-friendly shorelines. If all landowners are properly informed about eco-friendly designs we are hopeful that more landowners would want eco-friendly shorelines on their property and eco-friendly shorelines will become the norm. When this happens, less landowner outreach will be needed; landowners will seek this information on their own.

Appendix A: Interview Questions

During the early stages of our project, we referred to eco-friendly shorelines as "alternative shorelines". However, over time we came to the conclusion that the term "alternative" is ambiguous. Although many people do not know what an eco-friendly shoreline is, "eco-friendly" at least gives them an idea of the shoreline's function, even if they cannot picture the specific aspects of such a design. However, we decided not to reword our interview questions after the fact. Hence, in the interview questions and the discussion of the responses, we sometimes refer to "alternative shorelines." Similarly, there are other terms that refer to the same thing, such as green, living, or soft shorelines. A consensus should be reached on the terminology to avoid confusion and facilitate recognition of the chosen term.

The interviews we conducted with permit applicants and issuers were structured by a set of questions that were intended to cover a wide variety of information regarding the permitting process. Our research was conducted as part of a University of Washington program, so we submitted our interview questions to the University's human subjects review process for approval. We broke up our interviewees into two groups: permit applicants (landowners, contractors, and consultants applying for the permits) and permit issuers (employees from local, state, and federal agencies issuing permits). The first eleven questions were asked of both applicants and issuers, and an additional three questions were asked of applicants only.

Questions for Permit Applicants and Issuers

1. What is the step-by-step permitting process for private landowners interested in implementing an alternative shoreline design?
    a. What permits are required?
    b. Do differences in the permitting process exist between traditional and alternative designs?

2. Which group most frequently applies for permits: contractors, consultants, landowners?
    a. Is the permitting process generally faster or smoother for one group compared to another? Why?

3. Are there any perceived or actual bottlenecks in the permitting process?
    a. If so, where do they exist?
    b. How can permit applicants avoid bottlenecks?
    c. How can permit issuing agencies help applicants avoid bottlenecks?

4. What are the most common mistakes made by permit applicants?
    a. What is the cost (time and/or financial) of these mistakes to the permit applicant?
    b. [To permit issuers only:] What is the cost (time and/or financial) of these mistakes to the permit issuing agency?

5. Is there a discussion between the permit applicant and the permit issuer about the applicant's shoreline design?
    a. Are alternative shorelines promoted by the permit issuer?

6. Are there any shortcuts or streamlines in the permitting process for landowners interested in implementing alternative shoreline designs (as compared to installing or replacing a bulkhead or riprap)?

7. Is any alternative shoreline design information available for permit applicants?

8. Are there any improvements that could be made in the permitting process?

9. Are there any incentives within the permitting process for applicants interested in implementing alternative shoreline designs?
    a. Are there any potential incentives within the permitting process that would encourage applicants to consider alternative shoreline designs?
    b. Are there any potential policy mechanisms that would encourage applicants to consider alternative shoreline designs?

10. How do people know they need a permit?

11. What assistance and resources are available for permit applicants?

Additional Questions for Permit Applicants

12. [To landowners:] Does your property have alternative shoreline design?
    [To contractors and consultants/designers:] Have you designed and/or constructed any alternative shoreline designs?
    a. Why or why not?
    b. What are the benefits of alternative shoreline designs?
    c. What are the problems and costs of alternative shoreline designs?

13. How do the following factors affect the choice between traditional and alternative shoreline designs?
    a. Effectiveness of shoreline design at controlling erosion
    b. Maintenance
    c. Cost
    d. Permitting
    e. Aesthetics
    f. Lake accessibility and use

14. What information is your answer to the previous question based on?

Appendix B: Definitions

Alternative Shorelines: see **Eco-friendly Shorelines**

Bulkhead: a retaining wall to contain beach erosion and protect property from storm damage, often made of concrete, wood, or large boulders

Clean Water Act (CWA): the primary United States federal law governing water pollution

Ecosystem Functions: interactions between organisms and the physical environment

Eco-Friendly Shoreline: a shoreline that promotes beneficial ecosystem functions to wildlife while still preventing erosion and maintaining human enjoyment of the lake. Eco-friendly shorelines do not all look alike, but they may include such features as beach coves or full beaches, overhanging vegetation or planting buffers, bulkheads that are set back an appreciable distance behind the OHWM, appropriately placed logs or large woody debris, and biotechnical slope stabilization.

Endangered Species Act (ESA): a United States federal law designed to protect critically imperiled species from extinction as a consequence of economic growth and development untendered by adequate concern and conservation

Hardened Shorelines: a shoreline armored with bulkhead or riprap

Lake Washington Shoreline Protection Alternatives Programmatic (SPAP): a programmatic under which the federal permitting process, including consultation with NMFS, is streamlined if a project meets the specific set of design requirements set forth in the SPAP guidelines, ensuring an environmentally friendly shoreline design

Nearshore: The region of land extending between the backshore, or shoreline, and the beginning of the offshore zone. Water depth in this area is usually less than 10 m (33 ft).

NMFS (National Marine Fisheries Service): a division of the National Oceanic and Atmospheric Administration (NOAA), NMFS is responsible for the stewardship and management of the nation's living marine resources and their habitat

NOAA (National Oceanic and Atmospheric Administration): a scientific agency within the United States Department of Commerce focused on the conditions of the oceans and the atmosphere. NOAA is one of the community partners associated with this project.

Office of Regulatory Assistance (ORA): an entity created by the governor of Washington State to help citizens and businesses navigate through applicable state and federal regulatory systems

Ordinary High Water Mark (OHWM): refers to the highest level reached by a body of water that has been maintained for a sufficient period of time to leave evidence on the landscape

Programmatic Biological Evaluation for Shoreline Protection Alternatives in Lake Washington: see **Shoreline Protection Alternatives Progrommatic**

Regional General Permit (RGP): a Department of the Army authorization that is issued on a regional (limited geographic scope) basis for a category of activities when those activities are substantially similar in nature and cause only minimal individual and cumulative impacts on the aquatic environment. If your project meets the requirements, you may apply for an RGP from the Corps instead of the lengthier Individual Permit.

Riprap: loose rock used to create shoreline armoring similar to a bulkhead, though often placed at an angle to the water as opposed to a wall perpendicular to the water

Rivers and Harbors Act (RHA): this refers specifically to the Rivers and Harbors Act of 1899, the oldest environmental law in the United States. Its primary function was to make the discharge of matter into navigable waters a misdemeanor. To understand its applicability to this study, see **Section 10**.

Seattle Department of Planning and Development (SDPD): a department within the City of Seattle that manages growth and development within the city in a way that enhances quality of life. They promote a safe and sustainable environment through comprehensive planning, good design, and compliance with development regulations and community standards. SDPD is one of the community partners associated with this project.

Seattle Public Utilities (SPU): SPU provides water, sewer, drainage, and solid waste services to the residents of Seattle. SPU is one of the community partners associated with this project.

Section 7: a section of the Endangered Species Act that directs all federal agencies to use their existing authorities to conserve threatened and endangered species and, in consultation with the U.S. Fish and Wildlife Service, to ensure that their actions do not jeopardize listed species or destroy or adversely modify critical habitat

Section 10: a section of the Rivers and Harbors Act that regulates the building of a structure (bulkheads, docks, piers) or the placing of fill in navigable waters of the U.S.

Section 404: a section of the Clean Water Act that regulates the discharge of dredged and fill material into waters of the U.S.

Shoreline Management Act (SMA): a Washington State law adopted to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines. The SMA has broad policies to promote "preferred" shoreline use, protect shoreline natural resources (the land and its vegetation and wildlife), and to promote public access to the state's shorelines.

Shoreline Master Program (SMP): Under the SMA each city and county with "shorelines of the state" must adopt a SMP that is based on state laws and rules but tailored to the specific geographic, economic and environmental needs of the community. The SMP is essentially a shoreline comprehensive plan and zoning ordinance with a distinct environmental orientation applicable to shoreline areas and customized to local circumstances. The SMPs in jurisdictions around Lake Washington are currently being updated.

Substrate: the material on the lake floor. Close to the shoreline, a certain size of gravel (1/8 inch to 2 inches in diameter) contributes to the ideal habitat for juvenile salmon.

Traditional Shorelines: see **Hardened Shorelines**

U.S. Army Corps of Engineers (USACE): a federal agency that provides engineering services to the nation. The Corps has jurisdiction over navigable waters and issues the federal permits needed for shoreline work waterward of the OHWM along Lake Washington.

Washington Department of Ecology (ECY): an agency whose role is to protect, preserve, and enhance Washington's environment, and promote the wise management of our air, land, and water

Washington Department of Fish and Wildlife (WDFW): an agency whose mission is to provide sound stewardship of Washington State's fish and wildlife

Water Resource Inventory Area 8 (WRIA 8): Washington State is divided into 62 WRIAs for water and aquatic-resource management issues. WRIA 8 includes Lake Washington as well as the Cedar River watershed. One of the main functions of WRIA 8 is to conserve and restore salmon habitat. WRIA 8 is one of the community partners associated with this project.

Work Window: construction timing rules prohibiting work at certain times of the year due to detrimental ecological effects to fish or other wildlife listed under the ESA. Different work windows apply to different areas of the lake.

Chapter 83 – SHORELINE MANAGEMENT

Sections:

83.320 Landfill
83.330 Shoreline habitat and natural systems enhancement projects

General Regulations

83.340 Shoreline Setbacks
83.350 Shoreline Vegetation Management
83.360 View Corridors
83.370 Public Access
83.380 Standards for In-Water Activity
83.390 Miscellaneous Standards
83.400 Parking
83.410 Signage
83.420 Lighting
83.430 Water Quality, Stormwater and Nonpoint Pollution
83.440 Critical Areas – General Standards
83.450 Wetlands
83.460 Streams
83.470 Geologically Hazardous Areas
83.480 Flood Hazard Reduction
83.490 Archaeological and Historic Resources

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Feet
NOTE: In the event of a mapping error or ambiguity, the common boundary descriptions and criteria contained in RCW 90.58.030 (2) and Chapter 173-22 WAC pertaining to determinations of shorelands, as amended, shall apply, superseding the incorrect or outdated map.
Kenmore
Bothell
Woodinville
Seattle
Redmond
Bellevue
Proposed Shoreline Environment Designations
Shoreline Master Program - City of Kirkland
Aquatic
Shoreline Management Area
Residential - Low
Natural
Urban Conservancy
Urban Mixed
Residential - Medium/High
Figure Xa

ATTACHMENT 7 (A-D)

ATTACHMENT 7 (A-D)

ATTACHMENT 7 (A-D)

83.90 Shoreline 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 program. 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 as well as the extent of shoreline jurisdiction.
      1) Extent of Shoreline Jurisdiction - The shoreline 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 shoreline jurisdiction, the criteria contained in RCW 90.58.030(2) shall be used. For Lake Washington, the ordinary high water mark corresponds with a lake elevation of 21.8 feet. The extent of shoreline 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 ordinary high water mark shall be included in shoreline permit application submittals to determine the extent of shoreline 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:
            i) The portion of the public right-of-way known as 98th Avenue NE located within 200 feet of the Ordinary High Water Mark is designated wholly as Urban Mixed.
            ii) Waterfront street ends, where the public right-of-way is designated wholly under one 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 the same shoreline environment as the adjoining wetland area.
         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:
            i) 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 ordinary high water mark of Juanita Creek.
            ii) 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 ordinary high water mark 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 2)c) above.

2. Shoreline Environment Designations -

a. Sections 83.100 through 83.150 establish the six shoreline environment designations used in the City of Kirkland and their respective purposes, designation criteria, and management policies. Sections 83.180 through 83.330 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.

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 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 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.

83.110 Urban Conservancy

1. Purpose - To protect and restore ecological functions of open space, flood plain 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 environment designation should be assigned to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring of 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, flood plain 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.

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 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.

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 which depend on or benefit from a shoreline location.
3. Designation Criteria - A Residential - M/H 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.

83.140 Urban Mixed

1. Purpose - To provide for high-intensity land uses, including residential, commercial, recreational, transportation and mixed-used 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 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.

83.150 Aquatic

1. Purpose - To protect, restore, and manage the unique characteristics and resources of the areas waterward of the ordinary high water mark.
2. Designation Criteria - An Aquatic environment designation should be assigned to lands waterward of the ordinary high-water mark.

Shoreline Environment Designations

Goal SMP-1: 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. 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 SMP-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 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 SMP-2.2: Designate properties as Urban Conservancy to protect and restore ecological functions of open space, flood plain 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 SMP-2.3: Designate properties as Residential - 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 SMP-2.4: Designate properties as Residential - 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. 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. Non water-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 Blvd. NE/Lake Street S.
h. Institutional uses may be permitted in limited locations.

Policy SMP-2.5: Designate properties as Urban Mixed to provide for high-intensity land uses, including residential, commercial, recreational, transportation and mixed-used 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 SMP-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. Development within the Aquatic environment should be compatible with the adjoining upland development.
e. New overwater structures for water-dependent uses and public access are permitted, provided they will not preclude attainment of ecological restoration.
f. Public recreational uses of the water should be protected against competing uses that would interfere with these activities.
g. 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.
h. Existing residential uses located over the water and in the Aquatic environment may continue, but should not be enlarged or expanded.

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83.160 User Guide

1. Explanation of Uses Table
   a. The table contained in KZC 83.165 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. If a use if not specifically listed, then it may be considered through a Shoreline Conditional Use Permit (see Chapter 141). The following symbols apply:
      1) "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.
      2) "SD" means that the use or activity may be permitted by approval by the Planning Official through a Letter of Shoreline Exemption (see KZC Chapter 141) or through a Shoreline Substantial Development Permit (see KZC Chapter 141).
      3) "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 KZC Chapter 141). Uses that are not specifically prohibited under KZC 83.165 may be authorized through a Shoreline Conditional Use Permit.
      4) Shoreline Variances (see Chapter 141) are intended only to grant relief from specific bulk, dimensional or performance standards in the Shoreline Master Program, NOT to authorize shoreline uses and activities. They are therefore not included in KZC 83.170.

83.170 Shoreline Environments, Permitted and Prohibited Uses and Activities Chart

The chart is coded according to the following legend. SD = Substantial Development CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	**Natural**	**Urban Conservancy**	**Residential - L**	**Residential – M/H**	**Urban Mixed**	**Aquatic**
SHORELINE USE						
Resource Land Uses						
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
Commercial Uses						
Water-dependent uses						
Float plane landing and mooring facilities[1]	X	X	X	X	CU	See adjacent upland environments
Water-related, water-enjoyment commercial uses						
Any water-oriented Retail Establishment other than those specifically listed in this chart, selling goods or providing services.	X	SD[2]	X	X	SD	X

The chart is coded according to the following legend. SD = Substantial Development CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Retail Establishment providing new or used Boat Sales or Rental	X	SD[2]	X	CU[3,5]	SD[4]	See adjacent upland environments
Retail establishment providing gas and oil sale for boats	X	X	X	CU[3,5]	CU[5]	See adjacent upland environments
Retail establishment providing boat and motor repair and service	X	X	X	CU[3,5]	CU[5]	X
Restaurant or Tavern[6]	X	X	X	CU[3]	SD	X
Concession Stand	X	SD[2]	X	X	SD[2]	X
Entertainment or cultural facility	X	CU[7]	X	X	SD	X
Hotel or Motel	X	X	X	CU[8]/X	SD	X
Nonwater-oriented, nonwater-dependent uses						
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[9]	X
Office Uses	X	X	X	X	SD[9]	X
Neighborhood-oriented Retail Establishment	X	X	X	CU[10]	SD[9]	X
Private Lodge or Club	X	X	X	X	SD[9]	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
Industrial Uses						
Water-dependent uses	X	X	X	X	CU	See adjacent upland environments
Water-related uses	X	X	X	X	X	X
Nonwater-oriented uses	X	X	X	X	X	X
Recreational Uses						
Water-dependent uses						

The chart is coded according to the following legend. SD = Substantial Development CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Marina[11]	X	CU	X	SD	SD	See adjacent upland environments
Piers, docks, boat lifts and canopies serving Detached Dwelling Unit[11]	X	X	SD	SD	SD[15]	
Piers, docks, boat lifts and canopies serving Detached, Attached or Stacked Dwelling Units [11]	X	X	X	SD	SD	
Float	X	SD[2]	X	X	SD[2]	
Tour Boat Facility	X	X	X	X	SD[12]	
Moorage buoy[11]	X	SD	SD	SD	SD	
Public Access Pier or Boardwalk	CU	SD	SD	SD	SD	
Boat launch (for motorized boats)	X	X	X	X	CU	
Boat launch (for non-motorized boats)	SD	SD	SD	SD	SD	
Boat houses or other covered moorage not specifically listed	X	X	X	X	X	
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[13]	CU	SD	SD	SD	SD	X
Public Access Facility	SD[14]	SD	SD	SD	SD	See adjacent upland environments
Nonwater-oriented uses						
Nonwater-oriented recreational development.	X	X	X	X	SD[9]	X
Residential Uses						
Detached dwelling unit	CU	CU	SD	SD	SD[15]	X
Accessory dwelling unit[16]	X	X	SD	SD	SD[15]	X
Detached, Attached or Stacked Dwelling Units	X	X	X	SD	SD	X
Houseboats	X	X	X	X	X	X
Assisted Living Facility[17]	X	X	X	CU	SD	X
Convalescent Center or Nursing Home	X	X	X	CU[18]	SD[19]	X
Land division	SD[20]	SD[20]	SD	SD	SD	X
Institutional Uses						

The chart is coded according to the following legend. SD = Substantial Development CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Float plane landing and mooring facilities (public)	X	X	X	X	CU	See adjacent upland environment
Government Facility	X	SD	SD	SD	SD	X
Community Facility	X	X	X	X	SD	X
Church	X	X	X	CU[18]	SD[19]	X
School or Day-Care Center	X	X	X	CU[18]	SD[9]	X
Mini-School or Mini-Day-Care Center	X	X	X	SD[18]	SD[9]	X
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[21]	SD[21]	SD[21]	SD[21]	
Nonwater-oriented						
Arterials, Collectors, and neighborhood access streets	CU	SD[22]/CU	SD	SD	SD	X
Helipad	X	X	X	X	X	X
Utilities						
Utility production and processing facilities	X	CU[23]	CU[23]	CU[23]	CU[23]	X
Utility transmission facilities	CU[23]	SD[23]	SD[23]	SD[23]	SD[23]	CU[23]
Personal Wireless Service Facilities[24]	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[25]/CU	SD[25/]CU	See adjacent upland environments
Dredging and dredge materials disposal	SD[25]/CU	SD[25]/CU	SD[25]/CU	SD[25]/CU	SD[25]/CU	
Fill waterward of the ordinary high water mark	SD[25]/CU	SD[25]/CU	SD[25]/CU	SD[25]/CU	SD[25]/CU	
Land surface modification	SD[25]/CU	SD	SD	SD	SD	
Shoreline habitat and natural systems enhancement projects	SD	SD	SD	SD	SD	
Hard Structural Shoreline Stabilization	X	CU	CU	CU	CU	
Soft Shoreline Stabilization Measures	X	SD	SD	SD	SD	

Notes to Matrix:

[1] Limited to water-based aircraft facilities for air charter operations.
[2] Permitted as an accessory use to a Public Park.
[3] Permitted if located on the west side of Lake Washington Lake Blvd NE/Lake St S south of Lake Avenue West and north of NE 52nd Street.
[4] Permitted in the Juanita Business District or as an accessory use to a marina.
[5] Accessory to a marina only.
[6] Drive-in or drive-through facilities are prohibited.
[7] Use must be open to the general public.
[8] Permitted in Planned Area 3B established in the Lakeview Neighborhood Plan only.
[9] Permitted as part of mixed-use development containing water-oriented uses, where there is intervening development between the shoreline and the use, or if located on the east side of Lake Washington Blvd NE/Lake St S or the east side of 98th Avenue NE.
[10] Permitted if located on the east side of Lake Washington Blvd NE between NE 60th Street and 7th Ave S.
[11] No boat moored in or off the shoreline of Kirkland shall be used as a place of habitation.
[12] Permitted as an accessory use to a Marina or Public Park only.
[13] This use does not include other public recreational uses or facilities specifically listed in this chart
[14] Limited to trails, viewpoints, interpretative signage and similar passive and low-impact facilities.
[15] Permitted if located south of NE 60th Street only.
[16] One accessory dwelling unit (ADU) is permitted as subordinate to a single-family dwelling
[17] A nursing home use may be permitted as part of an assisted living facility use.
[18] Permitted if located on the east side of Lake Washington Blvd NE/Lake St S, or the east side of 98th Avenue NE.
[19] Not permitted in the Central Business District. Otherwise, permitted if located on the east side of Lake Washington Blvd NE/Lake St S, the east side of 98th Avenue NE or on the south side of NE Juanita Drive.
[20] May not create any new lot that would be wholly contained within shoreland area in this shoreline environment.
[21] Permitted as an accessory use to a marina or a public park.
[22] Construction of pedestrian and bicycle facilities only.
[23] This use may be allowed provided there is no other feasible route or location.
[24] New towers are not permitted.
[25] Permitted under a substantial development permit when associated with a restoration or enhancement project.

Definitions

83.80 Definitions

Refer to the definitions in this Chapter for terms that are specific to the Shoreline Master Program as well as the definitions contained in Chapter 5 KZC.

Act: The Washington State Shoreline Management Act, chapter 90.58 RCW.

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

Aquaculture: The cultivation of fish, shellfish, and/or other aquatic animals or plants, including the incidental preparation of these products for human use.

Aquatic: Those areas waterward of the ordinary high water mark.

Appurtenance: Uses typically associated with single family residences, such as decks, driveways, utilities, fences, grading which does not exceed five hundred cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark, and accessory structures such as a tool shed, greenhouse, private garage, or accessory dwelling unit. An appurtenance is necessarily connected to the use and enjoyment of a single-family residence and is located landward of the ordinary high water mark and the perimeter of a wetland.

Average parcel width: The average of the distance from the north to the south property lines as measured along the ordinary high water mark and the front property line, or along the east and west property lines if the parcel does not abut Lake Washington.

Bioengineering: Project designs or construction methods which 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 which 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.

Boat: Any contrivance used or capable or 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.

Boat house: An overwater structure designed for the storage of boats, but not including boat lift canopies.

Boat Launch: Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

Boat Lift: Lifts for motorized boats, kayaks, canoes and jet skis. Includes floating lifts, which are designed to not contact the substrate of the Lake; ground-based lifts, which are designed to be in contact with or supported by the substrate of the Lake; and suspended lifts, which are designed to be affixed to the existing overwater structure with no parts contacting the substrate.

Breakwater: Protective structures which are normally built offshore to provide protection from wave action.

Buffer – The area immediately adjacent to wetlands and streams that protects these sensitive areas and provides essential habitat elements for fish and/or wildlife.

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 83.90.3(b) and 83.95.3(b). The buffer setback serves to protect the wetland or stream buffer during development activities, use, and routine maintenance occurring adjacent to these resources.

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.

Canopy: A cover installed as a component of a boat lift.**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.

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 non-salmonids 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.

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 non-salmonid 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.

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.

Conditional Uses: A use, development, or substantial development which is classified as a conditional use in section 83.165 or which is not classified within the SMP. Those activities identified as conditional uses or not classified in this Master Program must be treated according to the review criteria established in WAC 173-27-160.

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.

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 which interferes with the normal public use of the surface of the waters overlying lands subject to RCW 90.58 at any state of water level.

Dock: A structure that floats on the surface of the water, without piling supports, but which is attached to land. Typically used for boat moorage, swimming, public access, and other activities that require access to deep water.

Drainage Basin – A specific area of land drained by a particular Kirkland watercourse and its tributaries.

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.

Dry land boat storage: A commercial service providing storage of boats and other boat on the upland portion of a property.

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 that constitute the shoreline's natural ecosystem.

Ecological Restoration: See Restore.

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.

Ecosystem-wide Processes: The suite of naturally occurring physical and geologic 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.

Feasible: An action, such as a development project, mitigation, or preservation requirement, which meets all of the following conditions:

(a) The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

(b) The action provides a reasonable likelihood of achieving its intended purpose; and

(c) The action does not physically preclude achieving the project's primary intended legal use.

In cases where these guidelines require certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant.

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.

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 booth, and other accessory uses or structures necessary for its operation. A passenger-only ferry terminal does not include provisions for the ferrying of vehicles.

Fill: The addition of soil, sand, rock, gravel, sediment, earth-retaining structure, or other material to an area waterward of the ordinary high water mark, in wetland, or on shorelands in a manner that raises the elevation or creates dry land.

Float: A structure that floats on the surface of the water, which 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.

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.

Floodplain: Synonymous with the one hundred year floodplain and means the land susceptible to inundation with a one 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 which meets the objectives of the Shoreline Management Act.

Frequently Flooded Areas – All areas shown on the Kirkland sensitive areas maps as being within a 100-year floodplain, as well as all areas regulated by Chapter 21.56 KMC.

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.

Geotechnical Analysis: See Geotechnical Report.

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.

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.

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. These include bulkheads, rip-rap, groins, and similar structures.

Helipad: A takeoff and landing area for helicopters.

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 semipermanent anchorage/moorage facilities.

Joint-use: Piers and floats that are constructed by more than one contiguous waterfront property owner or by a homeowner's association or similar group.

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.

Land Surface Modification: The clearing or removal of trees, shrubs, groundcover and other vegetation, excluding trees, and all grading, excavation and filling of materials.

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 or 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.

May: Means 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.

Minor Improvements – Walkways, pedestrian bridges, benches, and similar features, as determined by the Planning Official, pursuant to KZC 83.90.3(e) and 83.95.3(e).

Moorage buoy: A float, sometimes carrying a signal or signals, anchored to provide a mooring place away from the shore.

Must: means a mandate; the action is required.

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.

Non-Water-Oriented Use: Those uses that are not water-dependent, water-related, or water-enjoyment.

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; provided, that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining fresh water shall be the line of mean high water, or as amended by the State. For Lake Washington, the ordinary high water mark corresponds with a lake elevation of 21.8 feet.

Outfall: A structure used for the discharge of a stormwater or sewer system into a receiving water.

Permitted Uses: Uses which are allowed within the applicable shoreline environment, provided that they must meet the policies, use requirements, and regulations of this Chapter 83 KZC and any other applicable regulations of the City or state.

Pier: A structure supported by pilings 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.

Piling: The structural supports for piers, usually below the pier decking and anchored in the water.

Preserve: The protection of existing ecological shoreline processes or functions.

Primary Basins – The following basins, as shown on the Sensitive Areas Map: Juanita Creek, Forbes Creek, South Juanita Slope, Yarrow Creek, and Carillon Creek.

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.

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.

Public Access Pier or Boardwalk: An elevated structure which is constructed waterward of the ordinary high water mark and intended for public use.

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.

Public Use Area: A portion of private property that is dedicated to public use and which contains one 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.

Qualified Professional – An individual with relevant education and training, as determined by the Planning Official, and with at least three years' experience in biological fields such as botany, fisheries, wildlife, soils, ecology, and similar areas of specialization, and including a professional wetland scientist.

Restore: The reestablishment 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.

Restoration: See Restore.

Revetment: A shoreline protective structure constructed on a slope, and used to prevent erosion.

Salmonid – A member of the fish family salmonidae, which include chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; brook and dolly varden char, kokanee, and white fish.

Secondary Basins – Moss Bay, Houghton Slope A, Houghton Slope B, and Kirkland Slope, which are depicted on the Sensitive Areas Map.

Shall: Means a mandate; the action must be taken.

Shorelands: Those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of the Shoreline Management Act; the same to be designated as to location by the Department of Ecology.

Shoreland Areas: See Shorelands.

Shoreline Functions: See Ecological Functions.

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 non-native of 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.

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.

Shoreline Setback: The distance measured in feet that a structure or improvement must be located from the ordinary high water mark.

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 non-structural methods, riprap, bulkheads, gabions, jetties, dikes and levees, flood control weirs, and bioengineered walls or embankments.

Shorelines: All of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them: except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.

Shorelines of Statewide Significance: Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the ordinary high water mark and those natural rivers or segments thereof where the mean annual flow is measured at one thousand cubic feet per second or more. Definition is limited to freshwater areas in Western Washington.

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.

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.

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.

Soft 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 non-linear, sloping arrangement.

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.

Substantial Development: Any development of which the total cost or fair market value exceeds five thousand dollars, or any development which materially interferes with the normal public use of the water or shorelines of the state. The dollar threshold established in this subsection (3)(e) must be adjusted for inflation by the Office of Financial Management every five years, beginning July 1, 2007, based upon changes in the consumer price index during that time period. "Consumer price index" means, for any calendar year, that year's annual average consumer price index, Seattle, Washington area, for urban wage earners and clerical workers, all items, compiled by the Bureau of Labor and Statistics, United States Department of Labor. The Office of Financial Management must calculate the new dollar threshold and transmit it to the Office of the Code Reviser for publication in the Washington State Register at least one month before the new dollar threshold is to take effect. Those developments that meet the precise terms of the listed exemptions as contained in WAC 173-27-040 as follows (or as subsequently amended in the future) shall not be considered substantial developments for the purpose of this chapter:

a. Normal maintenance or repair of existing structures or developments, including damage by accident, fire, or elements;
b. Construction of the normal protective bulkhead common to single family residences;
c. Emergency construction necessary to protect property from damage by the elements;
d. Construction and practices normal or necessary for farming, irrigation, and ranching activities, including agricultural service roads and utilities on shorelands, and the construction and maintenance of irrigation structures including but not limited to head gates, pumping facilities, and irrigation channels. A feedlot of any size, all processing plants, other activities of a commercial nature, alteration of the contour of the shorelands by leveling or filling other than that which results from normal cultivation, shall not be considered normal or necessary farming or ranching activities. A feedlot shall be an enclosure or facility used or capable of being used for feeding livestock hay, grain, silage, or other livestock feed, but shall not include land for growing crops or vegetation for livestock feeding and/or grazing, nor shall it include normal livestock wintering operations;
e. Construction or modification of navigational aids such as channel markers and anchor buoys;
f. Construction on shorelands by an owner, lessee, or contract purchaser of a single family residence for his own use or for the use of his or her family, which residence does not exceed a height of thirty-five feet above average grade level and which meets all requirements of the state agency or local government having jurisdiction thereof, other than requirements imposed pursuant to this chapter;
g. Construction of a dock, including a community dock, designed for pleasure craft only, for the private noncommercial use of the owner, lessee, or contract purchaser of single and multiple family residences. This exception applies if the fair market value of the dock does not exceed ten thousand dollars, but if subsequent construction having a fair market value exceeding two thousand five hundred dollars occurs within five years of completion of the prior construction, the subsequent construction shall be considered a substantial development for the purpose of this chapter;
h. Operation, maintenance, or construction of canals, waterways, drains, reservoirs, or other facilities that now exist or are hereafter created or developed as a part of an irrigation system for the primary purpose of making use of system waters, including return flow and artificially stored ground water for the irrigation of lands;
i. The marking of property lines or corners on state owned lands, when such marking does not significantly interfere with normal public use of the surface of the water;

j. Operation and maintenance of any system of dikes, ditches, drains, or other facilities existing on September 8, 1975, which were created, developed, or utilized primarily as a part of an agricultural drainage or diking system;
k. Any project with a certification from the governor pursuant to chapter 80.50 RCW;
l. Site exploration and investigation activities that are prerequisite to preparation of an application for development authorization under this chapter, if:
   i. The activity does not interfere with the normal public use of the surface waters;
   The activity will have no significant adverse impact on the environment including, but not limited to, fish, wildlife, fish or wildlife habitat, water quality, and aesthetic values;
   ii. The activity does not involve the installation of a structure, and upon completion of the activity the vegetation and land configuration of the site are restored to conditions existing before the activity;
   iii. A private entity seeking development authorization under this section first posts a performance bond or provides other evidence of financial responsibility to the local jurisdiction to ensure that the site is restored to preexisting conditions; and
   iv. The activity is not subject to the permit requirements of RCW 90.58.550;
m. The process of removing or controlling an aquatic noxious weed, as defined in RCW 17.26.020, through the use of an herbicide or other treatment methods applicable to weed control that are recommended by a final environmental impact statement published by the Department of Agriculture or the Department of Ecology jointly with other state agencies under chapter 43.21C RCW.

n. Watershed restoration projects.

o. A public or private project that is designed to improve fish or wildlife habitat or fish passage, when all of the following apply:

   a. The project has been approved in writing by the department of fish and wildlife;

   b. The project has received hydraulic project approval by the department of fish and wildlife pursuant to chapter 77.55 RCW; and

   c. The local government has determined that the project is substantially consistent with the local shoreline master program. The local government shall make such determination in a timely manner and provide it by letter to the project proponent.

Tour Boat Facility: A moorage pier designed for commercial tour boat usage.

Upland: Generally described as the dry land area above and landward of the ordinary high water mark.

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.

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.

Utility Transmission Facilities: Infrastructure and facilities for the conveyance of services, such as power lines, cables, and pipelines.

View Corridor: An open area that provides an unobstructed public view across the subject property to and beyond Lake Washington from the adjacent right-of-way.

Water-Dependent Use: A use or portion of a use which cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operation.

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 which 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-orientated space within the project must be devoted to the specific aspects of the use that fosters shoreline enjoyment.

Water-Oriented Use: A use that is water-dependent, water-related, or water-enjoyment or a combination of such uses.

Water Quality: The physical characteristics of water within shoreline 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.

Water-Related Use: A use or portion of a use which 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 it services less expensive and/or more convenient.

Watershed – A region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water.

Watershed Restoration Plan: A plan, developed or sponsored by the department of fish and wildlife, the department of ecology, the department of natural resources, the 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;

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 or more of the following activities:

(A) A project that involves less than ten miles of streamreach, in which less than twenty-five 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 stream bank 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 two hundred square feet in floor area and is located above the ordinary high water mark of the stream.

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 would not include accessory facilities such as ticketing booths and would not include the transport of vehicles.

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 non-wetland 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, 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 non-wetland sites as mitigation for the conversion of wetlands.

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.

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Summary Table of Key Use Changes

The following describes some of the **key changes** from the existing SMP:

- General
  - The Shoreline Uses are proposed to more closely be based on the same use classification scheme that is used in the Use Zone Charts in order to provide better consistency. In order to evaluate implications for shoreline preferred uses, the listed uses have also been categorized as water-dependent, water-related/water-enjoyment, or non-water oriented. This is different than the current SMP scheme, and may result in some uses having more restrictions on their location if they are not a shoreline preferred use.
  - Urban Mixed (UM). The UM designation contains properties within the CBD 1 and 2 zones, JBD 2, 4 and 5 zones, BN zone, and PR 3.6 zone.
  - Urban Residential (UR). The UR designation contains properties within the RM, WD I, WD III, and PLA 3B zones, as well as small portions of properties in the PLA 6A, 6I, and 6H zones.

Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
Resource Land Uses	Not Listed	Not Listed	Listed to be consistent with WACs – not permitted
Float plane landing and mooring facilities	Float plane moorage is prohibited	Float plane moorage is prohibited	Permitted under a CU process in the UM Shoreline Environment. Limited to air charter operations (no regularly scheduled flights). (Note: This listing requires Planning Commission discussion).
Any water-oriented Retail Establishment other than those specifically listed in this chart, selling	Park facilities established through Master Plan.	Not permitted in waterfront parks, except Marina Park	Proposed as accessory to public park to allow for limited retail sales that would be supportive of park operations and public use and enjoyment of the waterfront.

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
goods or providing services.			
Retail Establishment providing new or used Boat Sales or Rental	Process IIB for use as accessory to general moorage facility in CBD 2, JBD 5, and PLA 15A. Permitted as a stand-alone use in JBD 2, 4 and 5. The WD I standards allow for accessory uses typical to a commercial marina (e.g. fuel sales, repair, sales, etc.), but the remaining zones do not allow these commercial activities.	Permitted as accessory to a moorage facility, except in low-density residential areas.	Proposal is for SDP, instead of a Process IIB that is currently required under existing zoning standards, in recognition of the role of these water-related uses in commercial areas. Permitted as accessory to a marina in the UM Shoreline Environment, except in the Juanita Business District, where it is permitted as a stand-alone use. Proposed to require CU process to permit as accessory use to a marina in the UR Shoreline Environment, but prohibited south of Carillon Point due to access limitations.
Retail establishment providing gas and oil sale for boats	Process IIB for use as accessory to general moorage facility in CBD 2, JBD 5, and PLA 15A. The WD I standards allow for accessory uses typical to a commercial marina (e.g. fuel sales, repair, sales, etc.), but the remaining zones do not allow these commercial activities.	Permitted as accessory to a moorage facility, except in SR	Requires a CU process to permit as accessory to a marina in the UM Shoreline Environment. Proposed to require CU process to permit as accessory use to a marina in the UR Shoreline Environment, but prohibited south of Carillon Point due to access limitations (consistent with zoning).
Retail establishment	Process IIB for use as accessory to	Permitted as accessory to a moorage	Requires a CU process to permit

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
providing boat and motor repair and service	general moorage facility in CBD 2, JBD 5, and PLA 15A. The WD I standards allow for accessory uses typical to a commercial marina (e.g. fuel sales, repair, sales, etc.), but the remaining zones do not allow these commercial activities.	facility, except in SR	as accessory to a marina in the UM Shoreline Environment. Proposed to require CU process to permit as accessory use to a marina in the UR Shoreline Environment, but prohibited south of Carillon Point due to access limitations (consistent with zoning).
Restaurant or Tavern	WD I allows the development of restaurants and marinas, subject to a Process IIA permit and certain standards	Permitted in UM 1/2 and UR 1	Requires a CU process instead of permitted in the UR shoreline environment.
Concession Stand	Not listed	Not listed	New use listing created to address concession stand facilities which are located most predominately in waterfront parks to support park operations and public use and enjoyment of the waterfront.
Entertainment or cultural facility	Permitted in CBD zones. Not permitted in BN or PR zones.	Not listed	Requires a CU process in the UC shoreline environment. Permitted in the UM environment (in BN and PR zones, zoning would still limit these uses).
Hotel or Motel	Permitted in CBD and JBD zones. Permitted in PLA 15A as part of mixed use development. Not permitted in BN or PR zones.	Not listed.	Permitted as a CU in the PLA 3B area to be consistent with the Comprehensive Plan language for this area, which addresses the PLA 3B area. Otherwise, not

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
	Permitted in PLA 3B.		permitted in the UR shoreline environment. Permitted in the UM shoreline environment (in BN and PR zones, zoning would still limit these uses).
Office Use	Permitted in CBD (with limitations), PLA 15A, JBD, PR, and BN zones.	Permitted in UM environments	Permitted in UM environments, subject to locational standards, which limit this non-water oriented use in order to reflect shoreline preferred uses
Neighborhood-oriented Retail Establishment	Presently listed as grocery store, drug store, Laundromat, dry cleaners, barber shop, beauty shop, or shoe repair shop. Not permitted in the PLA 6 zones that make up part of the UR shoreline environment, but are permitted in the RM zone.	Retail uses are not permitted in the urban residential shoreline environments (UR 1 and 2)	Designed to be consistent with zoning, except that use listing has been revised and redefined to be more general in character. Limited retail sales permitted in certain locations on the east side of Lake Street/Lake Washington Blvd to provide small-scale shops and services close to residential neighborhoods and waterfront parks.
Private Lodge or Club	Permitted in CBD and JBD zones and BN zone.	Not listed	Permitted in UM zones.
Vehicle Service Station	Permitted in JBD 2 and BN (as a Process IIA in BN)	Permitted in UM shoreline environments (UM 1 and 2)	Not permitted as this is a non-water oriented shoreline use which can have significant impacts to the shoreline ecology.
Automotive Service Center	Permitted in JBD 2 but no other zones comprising UM.	Permitted in UM shoreline environments (UM 1 and 2)	Not permitted as this is a non-water oriented shoreline use

Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
			which can have significant impacts to the shoreline ecology.
Dry land storage	Process IIB for use as accessory to general moorage facility in CBD 2, JBD 5, and PLA 15A. The WD I standards allow for accessory uses typical to a commercial marina (e.g. fuel sales, repair, sales, etc.), but the remaining zones do not allow these commercial activities.	Permitted as accessory to a moorage facility, except in SR	Not permitted.
Industrial Uses	Not permitted.	Not listed	Water-dependent industrial uses are permitted as a CU in the UM shoreline environments, in order to provide some flexibility for industrial uses that may depend upon a water location, consistent with direction provided in WAC to reserve lands for uses that may depend on shoreline locations.

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
Marina	The WD III and RM zones require that moorage be for the exclusive use of the residents of the subject property. Renting moorage space is not permitted The WD I and PLA 3B zones do not limit general moorage facilities for residents only. Not permitted in JBD 4. Permitted in CBD 2, JBD 4 and PLA 15A.	Permitted in all environments, but limited to slips accessory to a detached dwelling unit in the SR shoreline environment. Permitted as a CU if accessory to a public park in the Conversancy shoreline environment.	Proposed to prohibit within the N shoreline environment and require a CU process in the UC shoreline environment because of potential for ecological impacts in these areas. Proposing to allow sale or leasing of slips in UR shoreline environment, in keeping with concept of allowing water-dependent uses.
Piers, docks, boat lifts and canopies serving Detached Dwelling Unit	Canopies are not pemitted.	Canopies are not pemitted. Permitted as a CU if accessory to a public park in the Conversancy shoreline environment.	Proposing to allow canopies. Proposed to prohibit within the N shoreline environment because of potential for ecological impacts in these areas. Not needed in UC environment, which do not contain single family residences.
Piers, docks, boat lifts and canopies serving Detached, Attached or Stacked Dwelling Units	Canopies are not permitted.	Canopies are not permitted. Permitted as a CU if accessory to a public park in the Conversancy shoreline environment.	Proposing to allow canopies. Proposed to prohibit within the N shoreline environment because of potential for ecological impacts in these areas.
Tour Boat Facility	Not listed.	Not listed	Permit in UM zones accessory to a public park
Moorage buoy	Not listed.	Not listed	Permit in all shoreline environments, except Natural to allow for moorage which would

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
			not require an overwater structure such as a pier to be installed
Public Access Pier or Boardwalk	Permitted in all commercial districts except JBD 4. No permitted in WD II. Permitted under varying processes in medium-density and high-density residential zones.	Not permitted in SR shoreline environment. Permitted as a CU in Conservancy environments if accessory to a public park.	Permitted in all shoreline environments, except that in Natural it will require a CU
Boat launch (for motorized)	Process IIB for use as accessory to general moorage facility in WD I and PLA 15A.	Permitted as accessory to a moorage facility, except in SR	Requires CU in UM zones.
Public Park	Permitted.	Permitted in all Shoreline Environments	Requires CU in Natural shoreline environment and facilities must be passive and low-impact
Nonwater-oriented recreational development.	Recreational facilities permitted in CBD and JBD zones.	Not listed.	Permitted in UM shoreline environment, with limitations to reflect that this is not a preferred shoreline use
Accessory dwelling unit	Permitted as accessory to a detached dwelling unit.	Not listed	Permitted as an accessory use to a single-family residence in the UR, SR, and UM shoreline environments (except in CBD and JBD where single family residences are not permitted)
Assisted Living Facility	There are different permit processes throughout the zones that compromise the UR shoreline environment for this use (e.g.	Not listed	Permitted as a CU in the UR shoreline environment. Permitted in the UM environment.

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
	Process I in WD zones, Process IIA in PLA 6 zones, Process IIB in PLA 3B zone). These are permitted in all zones compromising the UM zone except the CBD and PLA 15A.		
Convalescent Center or Nursing Home	These are permitted in all zones compromising the UM zone except the CBD and PLA 15A.	Not listed.	Designed to reflect zoning. Not permitted in CBD. Permitted as a CU in the UR shoreline environment if located on east side of roadway. Permitted in the UM Environment.
Land Division	Permitted.	Not listed	Permitted in SR, UR and UM environments.
Government Facility	Permitted.	Permitted in all environments.	Permitted in all environments, except for Natural.
Community Facility	Permitted.	Not listed	Permitted in the UM shoreline environment
Church	The JBD zones, BN, and PR zones all permit churches, but the other areas in the UM Shoreline Environment (CBD and PLA 15A) do not. Not permitted in WD or PLA 3B zones, but permitted in other medium-density or high-density residential zones.	Not listed	Designed to reflect zoning restrictions. Permitted in the UM environment if on east side of roadway, except not permitted in CBD. Permitted in UR if on east side of street or on south side of Juanita Drive.
School or Day-Care Center	Permitted in CBD, JBD, BN and PR zones. Permitted as part of mixed-use development in PLA 15A.	Not listed	Permitted in the UM environment with limitations on location. Permitted as a CU in UR if on east side of street or on south side of

Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
	Permitted in all medium/high density residential zones except WD I, WD III and PLA 3B.		Juanita Drive.
Mini School or Mini Day-Care Center	Permitted in CBD, JBD, BN and PR zones. Permitted as part of mixed-use development in PLA 15A. Permitted in all medium/high density residential zones except WD I, WD III and PLA 3B.	Not listed	Permitted in the UM environment with limitations on location. Permitted in UR if on east side of street or on south side of Juanita Drive.
Bridges	N/A	Permitted in all environments.	Requires a CU process in the Natural and Urban Conservancy environments, due to potential ecological impacts.
Passenger-only ferry terminal	Not listed.	Not listed	Requires a CU in the UM environment
Water Taxi	Not listed.	Not listed	Permitted in all environments except Natural if operated out of a public park or marina
Arterials, collectors, and neighborhood access streets	Not listed.	Permitted in all environments.	Permitted in SR, UR, and UM environments. Pedestrian/bicycle facilities permitted in UC, otherwise, a CU process is required.
Utility production and processing facilities	Permitted under varying processes.	Permitted in all environments.	Requires CU process, except prohibited in Natural and Aquatic
Utility transmission facilities	Permitted under varying processes.	Permitted in all environments.	Requires CU in Natural and Aquatic; otherwise permitted.
Personal Wireless	Permitted, with varying processes depending upon facility type and	Not Listed	Permitted, except prohibited in Natural and Aquatic

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Shoreline Environment Uses	Existing Zoning Regulations	Existing SMP Regulations	Proposed SMP Regulations
	location.		
Breakwaters	Not listed.	Permitted in UM environments. Requires CU in UR environments. Permitted under CU process in Conservancy environments as accessory to a public park. Not permitted in SR environment.	Prohibited in Natural, UC and SR environments. Permitted in UR and UM if part of enhancement project; otherwise requires a CU.
Fill waterward of the OHWM	Permitted as Process IIB in WDI, II and III zones.	Requires a CU process in all environments. Only permitted in Conservancy if accessory to a public park.	Permitted if part of enhancement project; otherwise requires a CU.
Shoreline habitat and natural systems enhancement projects	Not listed.	Not listed	Permitted in all environments.
Hard Shoreline Stabilization	Permitted in WD I, II and III zones.	Permitted in all environments except Conservancy, where it requires a CU and is only permitted if accessory to a public park.	Requires CU; prohibited in Natural
Soft Shoreline Stabilization	Not listed.	Dependent upon proposal, but could be treated as Fill requiring a CU process	Permitted in all shoreline environments, except Natural

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83.340 Shoreline Setbacks

83.350 Shoreline Vegetation Management

83.360 View Corridors

1. General - Development within the shoreline area located west of Lake Washington Boulevard and Lake Street South shall include public view corridors which provides the public an unobstructed view of the water.
2. Standards -
   a. For properties lying waterward of Lake Washington Boulevard and Lake Street South, a minimum view corridor of thirty percent of the average parcel width must be maintained. The intent of the corridor is to provide an unobstructed view from the adjacent public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake.
   b. Properties located in the UM Shoreline Environment where view corridors have been previously established under an approved Master Plan or zoning permit approved under the provisions of Chapter 152 KZC shall comply with the view corridor requirements as approved. Modifications to the proposed view corridor shall be considered under the standards established in the Master Plan or approved zoning permit.
3. Exceptions - The requirement for a view corridor does not apply to the following:
   a. The following water-dependent uses:
      1) Marina, but only piers, docks, and floats and temporary storage of boats undergoing service or repair
      2) Piers, docks, floats, boatlifts and canopies
      3) Tour Boat Facility, ferry terminal or water taxi, but not including permanent structures greater than 200 square feet in size housing commercial uses ancillary to the facility
      4) Moorage buoy
      5) Public Access Pier or Boardwalk
      6) Boat launch
   b. Public Parks
   c. Properties located in the UM Shoreline Environment within the Central Business District
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 property to the west.
   b. The view corridor must be adjacent to either the north or south property line of the subject property, whichever will result in the widest view corridor, considering the following, in order of priority:
      1) Location 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 street.
      4) Location of existing sight-obscuring structures, parking areas or landscaping that are likely to remain in place in the foreseeable future.

c. The view corridor must be in one 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 Lake Washington and the shoreline on the opposite side of the Lake..

3) Structures may be located in view corridors if the slope of the subject property permits full, unobstructed views of the waters of Lake Washington 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) Landscaping, provided it is designed not to obscure the view from the public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake. at the time of planting or upon future growth. The Planning Official shall determine appropriate landscaping in the event of a conflict between required site screening and view preservation.

6) Open fencing that is designed not to obscure the view from the public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake..

b. The following shall not be permitted within a view corridor:

1) Structures, except as noted in subsection 5.a above.

2) Sight obscuring fences.

3) Landscaping that would screen the view of the shoreline at the time of planting or upon future growth.

6. Dedication - The applicant shall grant an easement or similar legal agreement, in a form acceptable to the City Attorney, and recorded with the King County Department of Records and Elections 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.

83.370 Public Access

1. 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 waterfront walkway and the public right-of-way serve to link the walkway with the larger pedestrian network.

The applicant shall comply with the following pedestrian access requirements with new development for all uses and land divisions under KMC Chapter 22, pursuant to the standards of this section:

a. Pedestrian Access Along the Water's Edge – Provide public pedestrian walkways along the water's edge.

b. Pedestrian Access From Water's Edge to Right-of-Way – Provide public pedestrian walkways designed to connect the waterfront pedestrian corridor to the abutting right-of-way.

2. 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 the water's edge between the development and the shoreline at an average of 10 feet but no closer than 5 feet landward of the ordinary high water mark so that the walkway may meander and not be a straight line.

   c. The public nature of the access shall be maximized by locating the walkways adjacent to other public areas including street-ends, waterways, parks, other public access and connecting trails.

   d. The walkways shall maximize views of the water and sun exposure.

   e. The walkways shall be located along pedestrian-oriented facades, as defined in KZC Chapter 92, where applicable and if feasible.

   f. The walkways shall be situated so as to minimize significant grade changes and the need for stairways.

   g. 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.

   h. The walkways shall be located so as to avoid undue interference with the use of the site by water-dependent businesses.

   i. 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.

3. 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 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 which 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 Department of Records and Elections. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.

4. 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 – All required pedestrian walkways shall be open to the public between the hours of 10 am to 8 pm, from March 21st to September 21st`. Otherwise the pedestrian walkway shall be open between the hours of 10 am to 5 pm.

   b. The applicant is permitted to secure the subject property outside of the hours of operation noted in subsection 4.a above 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 and Modifications

   a. General – The provisions of this subsection establish under what circumstances the requirements of this section do not apply or may be modified.

   b. Exception

      1) The requirement for the dedication and improvement of public access does not apply to:

         a) Development located within the Residential - L shoreline environment, except as follows:

            i) Public entities, such as a government facility or public park, located within the Residential - L shoreline environment are required to provide public access pursuant to the provisions of this section.

         b) Development located within the Natural shoreline environment.

         c) Individual single-family residences and normal appurtenances associated with a single-family residence that is not part of a land division. For development involving land division, public pedestrian access is required.

   c. Modifications

      1) The Planning Official may require or grant a modification to the nature or extent of any required improvement for any of the following reasons:

         a) If the presence of critical areas such as wetlands, streams, or geologically hazardous areas preclude the construction of the improvements as required.

         b) To avoid interference with the operations of water-dependant uses, such as marinas.

         c) If the property contains unique characteristics, such as size, configuration, topography, or location.

         d) If the access would create unavoidable health or safety hazards to the public.

      2) 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.

3) Access from the right-of-way to the waterfront walkway may be waived by the Planning Official if the following applies:

   a) If public access along the waterfront of the subject property can be reached from an adjoining property, and

   b) If the adjoining property providing access to the waterfront 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; and

   c) 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.

83.380 Standards for In-Water Activity

1. 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:

   a. 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.

   b. In-water structures and activities are not subject to the shoreline setbacks established in KZC 83.180.

   c. Projects involving in-water work must obtain all applicable state and federal permits, including those from the U.S. Army Corps of Engineers, Washington Department of Ecology, and Washington Department of Fish and Wildlife.

   d. Projects involving in-water work shall comply with timing restrictions as set forth by state and federal project approvals.

   e. Removal of existing structures shall be accomplished so the structure and associated material does not re-enter the lake.

   f. Waste material such as construction debris, silt, excess dirt or overburden resulting from in-water structure installaion shall be deposited above the ordinary high water mark in an approved upland disposal site.

   g. Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, fresh 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.

   h. In-water work shall be conducted in a manner that causes little or no siltation to adajcent areas. A sediment control curtain shall be deployed in those instances where siltation is expected. The curtain shall be maintained in a functional manner that contains suspended sediments during project installation.

   i. Any trenches, depressions, or holes created below the ordinary high water mark shall be backfilled prior to inundation by high water or wave action.

   j. 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.

   k. 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.

l. All trash and unauthorized fill, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, and paper, below the ordinary high water mark shall be removed and deposited above the ordinary high water mark in an approved upland disposal location.

m. If at any time, as a result of in-water work, fish are observed to be in distress or killed, or water quality problems develop, immediate notification shall be made to the Washington Department of Ecology.

83.390 Miscellaneous Standards

1. Screening of Storage and Service Areas

a. Outdoor Use, Activity and Storage. Outdoor Use, Activity and Storage areas must comply with the following:

1) Comply with the shoreline setback established for the use with which they are associated.

2) Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public park.

3) 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.

4) 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 subsection (2) and (3) above.

b. Mechanical and similar equipment or appurtenances.

1) At-grade mechanical and similar equipment or appurtenances are not permitted within the shoreline setback.

2) Rooftop appurtenances and at or below grade appurtenances shall be screened with landscaping 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.

c. Garbage and trash receptacles. Garbage and recycling receptacles must comply with the following:

1) Comply with the shoreline setback established for the use with which they are associated.

2) Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public parks.

3) Be screened from view from Lake Washington, required public pedestrian walkways, and other public use areas by a solid screening enclosure or within a building.

4) 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 receptable, are exempt from the placement and screening requirements of this section.

2. Design Standards -

a. 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:

1) Buildings are designed with windows that orient toward the shoreline.

2) Buildings are designed to incorporate outdoor areas such as decks, patios, or viewing platforms that orient toward the shoreline.

3) Buildings are designed with entrances along the waterfront façade and with connections between the building and required public pedestrian walkways.

4) Service areas are located away from the shoreline.

5) Site planning includes public use areas along waterfront public pedestrian walkways, if required under the provisions established in KZC 83.370, which will encourage pedestrian activity, including but not limited to:

i) Permanent seating areas;

ii) Landscaping, including trees to provide shade cover; and

iii) Trash receptacles.

6) Exemptions – The following are exempt from the requirements of subsection 2.a:

a) Non-water oriented commercial and recreational uses which are located on the east side of Lake Washington Blvd. 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 are exempt from the requirements of subsection (3) and (5) above.

b. Buildings located along the shoreline shall not incorporate materials which are reflective or mirrored.

83.400 Parking

1. General -

a. Only parking associated with a permitted or conditional shoreline use shall be allowed, except that within the UM Shoreline Environment, surface or structured parking facilities may accommodate parking for surrounding uses and for-pay parking is allowed.

b. Parking as a primary use on a subject property is prohibited.

2. Number of Parking Spaces -

a. All uses must provide sufficient off-street parking spaces. The required number of parking stalls established in KZC Chapter 105, KZC 50.60 and in the applicable use zone charts shall be met.

3. Parking Location -

a. Intent – To reduce the negative impacts of parking and circulation facilities on visible 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:

i) 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.

ii) The structure is designed to comply with shoreline vegetation standards established in KZC 83.350. 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 landscaping.

iii) The structure is designed to minimize impacts to public access and views to Lake Washington from the public right-of-way.

iv) 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:

i) The parking is subsurface, or

ii) The design of any above-grade structured parking incorporates landscaping and/or building surface treatment to provide an appearance comparable to the rest 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. General

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, minimally, composed of a different material from the parking lot.

2) Pedestrian connections must be at least five 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 KZC Chapter 95, the applicant shall buffer all parking areas and driveways from required public pedestrian pathways or public use areas with appropriate landscaping screening.

c. Design of Structured Parking Facilities - Each facade of a garage or a building containing above-grade structured parking that is visible from a required view corridor, or is facing a public pedestrian walkway, public use area, or public park must incorporate landscaping and/or building surface treatment to mitigate the visual impacts of the structured parking.

83.410 Signage

1. Standards – The following standards shall apply to signs within the shoreline jurisdiction:

a. Signage shall not interfere or block designated view corridors within the shoreline jurisdiction.

b. Signage shall not be permitted to be constructed over water, except as follows:

1) For retail establishments providing gas and oil sales for boats, where the facility is accessible from the water, provided that:

a) 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.

b) One 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 are permitted in KZC Chapter 100.

c) The sign shall be affixed to a pier or wall-mounted. The maximum permitted height of a freestanding sign is five feet above the surface of the pier. A wall-mounted sign shall not project above the roofline of the building to which they are attached.

2) Boat traffic signs, directional signs and signs displaying a public service message installed by a governmental agency.

3) Interpretative signs in coordination with public access and recreation amenities.

4) Building addresses mounted flush to the end of a pier, with letters and numbers at least 4 inches high.

c. Signs shall comply with the shoreline setback standards contained in KZC 83.180.

83.420 Lighting

1. General - Exterior lighting shall be controlled using limits on height, light levels of fixtures, lights shields, time restrictions and other mechanisms in order to:

   a. Prevent glare 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 submission and lighting standards established in this section:

      a. Development of a detached dwelling unit or associated appurtenances, except piers, docks, floats, boatlifts and canopies;

      b. Emergency lighting required for public safety;

      c. Lighting for public rights-of-way;

      d. Outdoor lighting for temporary or periodic events (e.g. community events at public parks);

      e. Seasonal decoration lighting; and

      f. Sign lighting, which is governed by KZC 83.410.

   b. The following development activities are exempt from the submission standards established in (3) below, but are still subject to the lighting standards contained in (4) below:

      a. Piers, docks, floats, boatlifts and canopies;

      b. Public Access Pier or Boardwalk; and

      c. Moorage buoy.

3. Submission Requirements - All development proposed within the shoreline jurisdiction 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, which 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 luminance 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 –

a. All exterior building-mounted and ground-mounted light fixtures shall be directed downward and use "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 and direct the light toward the ground.

b. Exterior lighting mounted on piers or illuminating piers and water-dependent uses located at the shoreline edge shall be at ground or dock level, and be directed away from adjacent properties and the water.

c. 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 –

a. Exterior lighting installations shall be designed to avoid harsh contrasts in lighting levels.

b. For properties located adjacent to a Natural shoreline environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.1 foot-candles (as measured at three feet above grade) at the site or environment boundary.

c. 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 environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 horizontal and vertical foot-candles (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candles onto the abutting property as measured within 15 feet of the property line.

d. Exterior lighting shall not exceed a strength of 1 foot-candles at the water surface of Lake Washington, as measured waterward of the ordinary high water mark.

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 –

a. Illuminance of a building façade to enhance architectural features is not permitted.

b. Where practical, 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.

5. Compliance – Exterior lighting in shoreline jurisdiction must be brought into compliance with the requirements of this section in any of the following situations:

   a. Replacement – The shielding requirements of subsection (4)(a)(1) of this section shall be complied with when any nonconforming light fixture is replaced or moved.

   b. Full Compliance – All other requirements of subsection (4) of this section shall be complied with when there is an increase in gross floor area of more than 50 percent to any structure on the subject property.

83.430 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 KMC 15.52 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 measure; 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, at minimum, 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 utilize 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. All types of BMPs require regular maintenance to continue to function as intended.

   c. Low Impact Development (LID) techniques shall be considered and implemented to the greatest extent practicable. 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 or more of the following objectives:

      1) Preservation of natural hydrology.

      2) Reduction of impervious surfaces.

      3) Treatment of stormwater in numerous small, decentralized structures.

      4) Use of natural topography for drainageways and storage areas.

      5) Preservation of portions of the site in undisturbed, natural conditions.

      6) Reduction of the use of piped systems. Whenever possible, site design should use multifunctional open drainage systems such as vegetated swales or filter strips which also help to fulfill landscaping and open space requirements.

      7) Use of environmentally sensitive site design and green building construction that reduces runoff from structures, such as green roofs.

8) Other low impact development techniques as approved by the Public Works Official.

d. New outfalls or discharge pipes to Lake Washington shall be avoided, where possible. 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 ordinary high water mark.

e. In addition to providing storm water quality treatment facilities as required in this section and the City's Surface Water Master Plan, the developer and/or property owner shall provide source control BMPs such as structures and/or a manual of practices 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, carwashing at multifamily residential sites and oil storage at marinas providing service and repair. Criteria for development and submittal of designs and plans for such BMPs are included in the standard plans.

f. 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 City of Kirkland's Public Works Storm/Surface Water Division and other agencies with jurisdiction shall be contacted immediately to coordinate spill containment and cleanup plans. It shall be the responsibility of property owner to fund and implement the approved spill containment and cleanup plans and to complete the work by the deadline established in the plans.

g. All materials that come into contact with water shall be constructed of untreated wood, cured concrete, steel or other approved non-toxic materials. Materials used for over-water 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.

h. 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) to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values. Examples of BMPs include, but are not limited to:

a) Appropriate application timing in relation to existing soil moisture, anticipated weather conditions and irrigation schedules to achieve the greatest product performance and reduce potential for off-site transport.

b) Application of post-emergence herbicides when weeds are at their most vulnerable growth stage.

c) Use of the lowest appropriate rate to minimize pesticide loss to the environment

d) Application by spot treatment or wicking, particularly for broad spectrum herbicides.

e) Use of time-release fertilizers and herbicides.

f) Use of less toxic products, such as soaps, horticultural oils and plant-based insecticides and organic fertilizers.

2) 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. Aerial spraying of herbicides, pesticides and fertilizers within 200 feet of the ordinary high water mark of Lake Washington is prohibited.

3) The use of pesticides, herbicides or fertilizers within the shoreline jurisdiction, including applications of herbicides to control noxious aquatic vegetation, shall comply with regulations of responsible agencies, including the Washington State Department of

Agriculture, Department of Ecology, Department of Fish and Wildlife or the Federal Environmental Protection Agency.

4) 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 Kirkland Planning Department prior to the application.

83.440 Critical Areas – General Standards

1. The provisions of this Chapter do not extend the shoreline jurisdiction beyond the limits specified in this SMP. For regulations addressing critical area buffers that are outside of the shoreline jurisdiction, see KZC Chapter 85 and 90.

2. Avoiding impacts to critical areas.

   a. An applicant for a land surface modification or development activity within a critical area or its associated buffer shall utilize the following mitigation sequencing guidelines, which 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 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 the KZC.

      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 utilized mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas and associated buffers. The applicant should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the 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 the KZC apply.

   c. In determining the extent to which the proposal should 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 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 section as a part of the critical areas review conducted pursuant to KZC XXX.

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 trees 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.

   c. Tree Removal Standards

      1) If a tree is considered a nuisance or hazard in a critical area or its buffer, the priority action is to create a “snag” or wildlife tree with the subject tree. 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:

            i) The tree must have a combination of structural defects and/or disease which makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property; and

            ii) The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.

         b) Nuisance Tree Criteria. A nuisance tree must meet the following criteria:

            i) Tree is causing obvious, physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, roof;

            ii) Tree has been damaged by past maintenance practices, that cannot be corrected with proper arboricultural practices; or

            iii) 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:

               1. Pruning of the crown or roots of the tree and/or small modifications to the site including but not limited to a driveway, parking lot, patio or sidewalk to alleviate the problem.

               2. 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 feet in height in close proximity to where the removed tree was located. Selection of native species and timing of installation shall be coordinated with the Planning Official.

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. 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.

      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 its entry into waterways and wetlands and minimize its 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.

Note: Much of the provisions of 83.450 and 83.460 below are taken from the City's existing critical area ordinance of Chapter 90. The key changes, as outlined in the staff report, reflect necessary revisions to be consistent with the final version of the Department of Ecology's Western Washington Wetland Rating System as well as Ecology's synthesis of scientific literature on wetlands and issuance of guidance for management of wetlands (Wetlands in Washington State). Both of these documents meet the criteria for Best Available Science (BAS) as defined in WAC 365-195-905, which cities and counties are required to meet when amending their zoning regulations to protect critical areas.

83.450 Wetlands

1. Applicability – The following provisions shall apply to wetlands and wetland buffers located within the shoreline jurisdiction, in replace of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this section continue to apply, with the exception of the following subsections, which shall not apply within the shoreline jurisdiction:

   a. KZC 90.20 – General Exceptions

   b. KZC 90.30 – Definitions

   c. KZC 90.75 – Minor Lakes

   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 Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology, 1997). 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 (which shall be the area within 250 feet of the subject property) 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. 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 (2) 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 (a) fund a study and report prepared by the City's wetland consultant; or (b) 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.

c. If a wetlands 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 which 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 & 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 # 04-06-025, or latest version). [Note: When a wetland buffer outside of shoreline jurisdiction is proposed to be modified, the wetland in shoreline jurisdiction must be rated using the methodology required by KZC 90.40 to determine the appropriate buffer width. Ecology's rating system and the corresponding buffers only apply to those wetlands and buffers which are located in shoreline 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 report, if applicable, by the City's wetland consultant. 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 two (2) 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. 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 KZC 83.450.4 through 83.460.10. See also KZC 83.440, Trees in Critical Areas or Critical Area Buffers; and KZC 83.440, 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	
Natural Heritage Wetlands	215 feet
Bog	215 feet
Habitat score[1] from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet
Category II	
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
Category III	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
Category IV	50 feet

[1] Habitat score is one of three 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* http://www.metrokc.gov/ddes/cao/PDFs04ExecProp/BAS-Chap9-04.pdf.

Where a legally established, improved road right-of-way or 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 within this setback minor improvements which 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.

c. Storm Water Outfalls – 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 (b) of this section and within the buffers specified in subsection (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 wetland or wetland buffer by meeting the following design standards:

6) Catch basins must be installed as far as feasible from the buffer boundary.

7) 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 – Detention and water quality treatment devices, and other similar facilities as determined by the City, shall not be located within the wetland buffers or buffer setbacks of this section except as provided below. Water quality facilities, as determined by the City, may be located within the wetland buffers of subsection 85.450.4 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 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) Its 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 criteria 9 – 12 (below) are met in addition to 1 – 8 (above):

9) The project includes enhancement of the entire buffer;

10) The project would provide an exceptional ecological benefit off-site;

11) The water quality facility, once installed, would not require any further disturbance or intrusion into the buffer; and

12) There is no practicable or 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 area or reduce flood storage capacity, the following work may only be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing per KZC 83.440.2 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.

4) All affected critical areas and buffers will 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 (a) of this section. These minor improvements shall be located within the outer one-half 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 which 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 six (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 wetland 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 wetland buffers and the developed portion of the site, either (1) a permanent three (3)- to four (4)-foot-tall split rail fence; or (2) 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 -

a. 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 noted in subsection b.

b. All Wetland Modification or Wetland Buffer Modification affecting > 25% of the standard buffer require a Shoreline Variance pursuant to Process IIA, described in Chapter 141 KZC, except as follows:

1) Development activity or land surface modification approved under subsection 4 above (Wetland Buffers and Setbacks) or subsection 10 (Wetland Restoration) below, and

2) In the Natural Environment, applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

i. When allowed - A reasonable use exception may be granted if the strict application of this section would preclude all reasonable use of a site. The reasonable use process within the shoreline management area applies to lots that are significantly constrained by critical area and critical area buffers, but still contain a minimum of 20 percent of the land area of the subject property outside of wetlands, either in wetland buffer or as upland area.

ii. Submittal Requirements – As part of the reasonable use request, in addition to submitting an application, 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:

a) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.450(3) for a wetland or based on the definitions contained in this chapter for a stream;

b) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;

c) Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

d) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;

e) 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;

f) An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;

g) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;

h) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;

i) Information specified in KZC 83.450(8); and

j) Such other information or studies as the Planning Official may reasonably require.

iii. Decisional Criteria – The City shall grant approvals for reasonable use exceptions only if all of the following criteria are met:

a) That no permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible and reasonable, which in the Natural Environment shall be one single-family dwelling;

b) That there is no feasible on-site alternative to the proposed activities, 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 sensitive 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 or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and landscaping, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be that which

will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer;

d) The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;

e) 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 site constraints;

f) The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;

g) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;

h) The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;

i) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and

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.

iv. Modifications and Conditions – The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five feet to reduce the impact on the sensitive area and sensitive area buffer. The required front yard may be reduced by up to 50 percent where the applicant demonstrates that the development cannot meet the City's code requirements without encroaching into the sensitive area buffer. The City shall include in the written decision any conditions and restrictions that the City determines are necessary to eliminate or minimize any undesirable effects of approving the exception.

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 qualified professional. 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 KZC 83.450(3) for a wetland or based on the definitions contained in this chapter for a stream;

2) An analysis of the mitigation sequencing as outlined in KZC 83.440.2;

3) Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

4) A description of the area of the site which 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 amount of development proposed would have on the sensitive area and the sensitive area buffer;

7) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;

8) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;

9) 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.

10) Information specified in KZC 83.450(8);

11) An evaluation of the project's consistency with the shoreline variance criteria contained in WAC 173-27-170; and

12) Such other information or studies as the Planning Official may reasonably require.

c. 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 83.440.2;

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 ;

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 practicable or feasible alternative development proposal that results in less impact to the wetland and its buffer.

8. Compensatory Mitigation – A modification may only be approved after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.85.2. 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 #06-06-011a. Olympia, WA.

Compensatory Mitigation

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only[1]	Re-establishment or Creation (R/C) and Rehabilitation (RH)[1]	Re-establishment or Creation (R/C) and Enhancement (E)[1]	Enhancement Only[1]
All Category IV	1.5:1	3:1	1:1 R/C and 1:1RH	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

On-site mitigation is presumed to be preferable to off-site mitigation. 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

[1] 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

of all affected properties, in a form approved by the City Attorney and recorded in the King County Department 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.

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:

1) The goals and objectives for the mitigation plan;
2) Success criteria by which the mitigation will be assessed;
3) Plans for a five (5) year monitoring and maintenance program;
4) A contingency plan in case of failure; and
5) Proof of a written contract with a qualified professional who will perform the monitoring program.

The monitoring program shall consist of at least two 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.

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 83.440.2.

b. Approved departures from the standard buffer requirements of KZC 83.450.4(a) 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 reestablish the physical and biological conditions of the standard buffer.

c. 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 KZC 83.450.4(a) or a buffer reduced in accordance with this section by no more than twenty-five percent (25%) 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. Buffer widths may be decreased if an applicant receives a modification request approval.

1) Types of Buffer Modifications – Buffers may be reduced through one of two means, either (a) buffer averaging, or (b) buffer reduction with enhancement. A combination of these two 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 KZC 83.450.4(a). Buffers may not be reduced at any point by more than twenty-five percent (25%) of the standards specified in KZC 83.450.(a). 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: (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 83.90.5(d). Buffers may not be reduced at any point by more than twenty-five (25) percent of the standards in KZC 83.450.3(a). Buffer reductions of more than twenty-five (25) percent approved through a Shoreline Variance will be assumed to have direct wetland impacts that must be compensated for as described above under KZC 83.450.8

2) Decisional Criteria – An improvement or land surface modification may only be approved in a wetland buffer if:

   a) The development activity or buffer modification demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.440.2.

   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;

   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 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 wetland consultant. The report shall assess the habitat, water quality, 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 ten (10) criteria listed in this subsection (d)(2) of this section.

10. 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 83.440, Trees in Critical Areas or Critical Area Buffers; and KZC 83.440, 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 wetland restoration is required by the City, the requirements of KZC 83.450.8, Compensatory Mitigation, shall apply.

11. 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.

83.460 Streams

1. Applicability – The following provisions shall apply to streams and stream buffers located within the shoreline jurisdiction, in replace of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this Section continue to apply, with the exception of the following subsections, which shall not apply within the shoreline jurisdiction:

   a. KZC 90.20 – General Exceptions

   b. KZC 90.30 – Definitions

   c. KZC 90.75 – Minor Lakes

   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 may occur and no improvements may be located in a stream or its buffer except as provided in KZC 83.460.3 through 83.460.11.

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 (which shall be the area within approximately 100 feet of the subject property).

   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 two 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 may be located in a stream or its buffer, except as provided in this section. See also KZC 83.85(1), Trees in Critical Areas or Critical Area Buffers; and KZC 83.85(2), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Required, or standard, buffers for streams are as follows:

   Stream Buffers

Stream Class	Primary Basins	Secondary Basins
A	75 feet	N/A
B	60 feet	50 feet
C	35 feet	25 feet

Stream buffers shall be measured from each side of the ordinary high water mark 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 which 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 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 stream buffer. The City may allow within this setback minor improvements which 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 Outfalls – 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 (b) of this section and within the buffers specified in subsection (a) of this section only when the Public Works and Planning Officials both determine, 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;

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 wetland or wetland buffer by meeting the following design standards:

6) Catch basins must be installed as far as feasible from the buffer boundary.

7) 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 – Detention and water quality treatment devices, and other similar facilities as determined by the City, shall not be located within the stream buffers or buffer setbacks of this section except as provided below. 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) Its 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 9 – 12 (below) are met in addition to 1 – 8 (above):

9) The project includes enhancement of the entire on-site buffer;

10) The project would provide an exceptional ecological benefit off-site;

11) The water quality facility, once installed, would not require any further disturbance or intrusion into the buffer; and

12) There is no practicable or 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 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 83.440.2 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 will 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 83.460.4. These minor improvements shall be located within the outer one-half 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 which 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 six-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 (1) a permanent three- to four-foot-tall split rail fence; or (2) 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 -

   a. 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 noted under subsection b.

   b. All Stream Relocation or Modification or Stream Buffer Modification affecting > one-third (1/3) of the standard buffer require a Shoreline Variance pursuant to Process IIA, described in Chapter 141, except as follows:

      1) Development activity or land surface modification approved under subsection 4 above (Stream Buffer and Setback) or subsection 10 (Stream Crossings) and 11 (Stream Rehabilitation) below.

      2) In the Natural Environment, applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

         i. When allowed **-** A reasonable use exception may be granted if the strict application of this section would preclude all reasonable use of a site. The reasonable use process within the shoreline management area applies to lots that are significantly constrained by critical area and critical area buffers.

         ii. Submittal Requirements – As part of the reasonable use request, in addition to submitting an application, 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:

            a) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.460(3) based on the definitions contained in this chapter for a stream;

            b) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;

            c) Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

            d) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;

e) 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;

f) An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;

g) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;

h) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;

i) Information specified in KZC 83.450(8); and

j) Such other information or studies as the Planning Official may reasonably require.

iii. Decisional Criteria – The City shall grant approvals for reasonable use exceptions only if all of the following criteria are met:

a) That no permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible and reasonable, which in the Natural Environment shall be one single-family dwelling;

b) That there is no feasible on-site alternative to the proposed activities, 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 sensitive 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 or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and landscaping, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer;

d) The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;

e) 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 site constraints;

f) The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;

g) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;

h) Areas of permanent sensitive area and sensitive area buffer disturbance shall be mitigated to the maximum extent feasible on-site pursuant to a mitigation plan meeting the requirements of KZC 83.450.8;

i) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and

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.

iv. Modifications and Conditions – The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five feet to reduce the impact on the sensitive area and sensitive area buffer. The required front yard may be reduced by up to 50 percent where the applicant demonstrates that the development cannot meet the City's code requirements without encroaching into the sensitive area buffer. The City shall include in the written decision any conditions and restrictions that the City determines are necessary to eliminate or minimize any undesirable effects of approving the exception.

7. Stream Buffer Modification

a. Approved departures from the standard buffer requirements of KZC 83.460.4(a) 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 reestablish the physical and biological conditions of the standard buffer.

b. Types of Buffer Modification – Buffers may be reduced through one of two means, either (1) buffer averaging; or (2) buffer reduction with enhancement. A combination of these two 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 KZC 83.460.4(a). Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.460.4(a). 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 forests in density and species composition. A buffer enhancement plan shall at a minimum 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 KZC 83.450.8. Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.460.4(a).

c. Decisional Criteria – An improvement or land surface modification may only be approved in a stream buffer only if:

1) The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.440.2.

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);

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 wetland 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 ten criteria listed in this subsection.

8. 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 may not be considered.

   A proposal to relocate or modify a Class A stream may only be approved only 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).

   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 Department of Elections and Records, consenting to the sensitive area and/or buffer creation or increase on such property.

   Prior to the City's 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 feet horizontal to one-foot vertical, and the installation of both temporary and permanent erosion-control features (the use of native vegetation on stream banks shall be emphasized);

      3) The creation of a narrow sub-channel (thalweg) against the south or west stream bank;

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 83.450.8.

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.

9. Bulkheads in Streams - Bulkheads are not permitted along a stream, except as provided in this subsection. The City shall allow a bulkhead to be constructed only if:

a. It is not located within a wetland or between a wetland and a stream;

b. It is needed to prevent significant erosion;

c. The use of vegetation and/or other biological materials would not sufficiently stabilize the stream bank to prevent significant erosion;

d. 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:

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) Neither the installation, existence, nor operation of the bulkhead will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and

6) Neither the installation, existence, nor operation of the bulkhead will be detrimental to any other property or the City as a whole; and

e. The Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project.

The bulkhead shall be designed consistent with Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised). The bulkhead 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 non-dissolving and non-decomposing. The applicant shall also stabilize all exposed soils by planting native riparian vegetation with high food and cover value for fish and wildlife.

10. Stream Crossings - Stream crossings are not permitted, except as specified in this section. 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) Neither the installation, existence, nor operation of the stream crossing will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and

        6) Neither the installation, existence, nor operation of the stream crossing will be detrimental to any other property or to the City as a whole.

    The stream crossing shall be designed and constructed to allow passage of fish inhabiting the stream or which 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 culvert maintenance agreement under KZC 90.145 for continued maintenance of the stream crossing.

    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 above criteria and the following additional criteria:

        7) The culvert must be designed consistent with Washington Department of Fish and Wildlife's *Design of Road Culverts for Fish Passage* (2003, or as revised).

    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.

11. 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 83.440, Trees in Critical Areas or Critical Area Buffers; and KZC 83.440, 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 stream rehabilitation is required by the City, the mitigation plan and monitoring requirements of KZC 83.450.8, shall apply.

83.480 Flood Hazard Reduction.

1. The City of Kirkland Flood Damage Regulations, as codified in Chapter 21.56 KMC (dated XX, Ordinance # XX), are herein incorporated into this master program.

83.490 Archaeological and Historic Resources

1. General - Uses, developments and activities on sites of historic or archeological significance or sites containing things 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 will 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 possible 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 RCW 2744 (Indian Graves and Records) and RCW 2753 (Archaeological Sites and Records) and shall comply with WAC 25-48 or its successor as well as the provisions of this chapter.

   g. Proposed changes to historical properties which are registered on the State or National Historic Register are subject to review under the National and State Registers' review process.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

July 8, 2008

City of Kirkland
Planning & Community Development
Attn: Paul Stewart
123 Fifth Avenue
Kirkland, WA 98033

Dear Paul:

The City of Kirkland has asked Ecology if their current wetland regulations within the existing Critical Areas Ordinance (CAO) contain adequate protection to be applied within the updated Shoreline Master Program (SMP). It is our understanding that the City adopted their current CAO in 2003. This predates the issuance of the final version of Ecology's Washington State Wetland Rating System (August 2004) and of Ecology's extensive synthesis of scientific literature on wetlands and of the guidance based on that synthesis (Wetlands in Washington State, Vol. 1 and 2 [March & April 2005]). Both the rating system and the synthesis of wetland science meet the criteria for Best Available Science (BAS) as defined in WAC 365-195-905. As you know, the Growth Management Act was amended in 1995 to require that cities and counties include BAS in developing regulations to protect critical areas (RCW 36.70.172).

Although the City has not adopted Ecology's wetland rating system, the City does have a unique wetland rating system based on a regionally specific analysis (Adolfson, 1998). The City's rating system provides added protection to wetlands adjacent to Lake Washington. The City asked its consultant (The Watershed Company) to rate the five major wetland complexes[1] within the City's shoreline jurisdiction using both Ecology's and the City's current wetland rating systems and provide a comparison of the results.

We have reviewed the following documents provided by the City analyzing wetland protections within the current CAO:

- City of Kirkland wetland rating reports for Forbes Creek, Forbes Creek #2, Juanita Creek Park, South Juanita Slope, and Yarrow Bay wetlands.
- Ecology wetland rating reports for Forbes Creek, Forbes Creek #2, Juanita Creek Park, South Juanita Slope, and Yarrow Bay wetlands.
- Memo prepared by the Watershed Company dated April 9, 2008, comparing the Ecology wetland rating system with the City of Kirkland's wetland rating system.

[1] Forbes Creek, Forbes Creek #2, Juanita Creek Park, South Juanita Slope, and Yarrow Bay wetlands

- Report prepared for the City by Adolfson Associates, Inc., dated August 31, 1998. Under the Shoreline Guidelines (WAC 173-26-221) wetland regulations within the updated SMP shall address potential wetland modification activities to achieve *no net loss of wetland area and function*. Generally, the Ecology wetland rating system categorizes wetland quality (rating) through identification of wetland functions. Wetland buffer widths as well as mitigation requirements are then based on the potential functions a wetland offers (i.e. the higher the function rating, the higher the degree of protection needed). The Watershed Company's comparison of the two wetland rating systems states, "*Due to inherent differences between the rating systems, the Ecology and Kirkland ratings are not directly comparable.*" The comparison also notes, "*The Ecology rating provides a detailed functions analysis that itemizes water quality, hydrologic, and habitat functions*" and that *"[t]he Kirkland rating system does not assess water quality or hydrologic functions.*"

Because the Kirkland rating system does not assess wetland functions other than habitat, we cannot support use of the Kirkland rating system in the updated SMP. However, since the Watershed Company has rated all of the known wetlands within shoreline jurisdiction using Ecology's rating system, for the five major wetlands within shoreline jurisdiction, Ecology could support the City's using those ratings to establish appropriate buffer widths under Buffer Alternative 3, as recommended in Appendix 8C of Volume 2, *Wetlands in Washington State*. Acceptance of this approach would be subject to the following provisions:

1. If impacts of adjacent land use are to be considered "moderate" rather than "high" for the purpose of establishing buffer widths, all applicable and practicable measures to minimize the impact of the adjacent land use shall be employed (see Table 8C-8 in Appendix 8-C of Volume 2, *Wetlands in Washington State*).

2. Any unmapped buffers outside of the five wetlands identified in the Watershed Company report shall be rated based on the 2004 Ecology wetland rating system and protected by buffers of the appropriate widths as recommended in Ecology's guidance.

Alternatively, the City would need to adopt a revised wetland rating system that considers wetland functions consistent with the Ecology rating system. We appreciate the City's request for Ecology assistance in resolving this issue. Please do not hesitate to contact us if we can be of any further assistance.

Thank you,

Joe Burcar - Shoreline Planner, Ecology NWRO

cc: Stacy Clauson
Richard Robohm, Geoff Tallent, Peter Skowlund – Ecology
Amy Summe – The Watershed Company

Juanita Beach Park Wetlands
South Juanita Slope Wetland
Forbes Creek Wetland
Forbes Creek Wetland #2
Juanita Beach Park Detail
Juanita Bay Detail
Yarrow Bay Detail
Yarrow Bay Wetland
Wetland Buffer Comparison
Shoreline Management Area
South Juanita Slope Wetland
50-Foot CON Buffer
75-Foot KC UGA Buffer
Juanita Beach Park Wetlands
50-Foot KC UGA Buffer
100-Foot CON Buffer
Forbes Creek Wetlands
100-Foot CON Buffer
150-Foot KC UGA Buffer
Yarrow Bay Wetland
100-Foot CON Buffer
125-Foot KC UGA Buffer
Other Map Elements
Wetlands
Wetlands within SMA Boundary
200 from OHWM
Shoreline Management Area (SMA)
Park/Open Space
Building Footprints
Privately-Owned Property
Tax Parcel Boundary
Kirkland City Limits
Docks/Piers
Lakes

SHORELINE MASTER PROGRAM UPDATE

The City of Kirkland is currently in the process of updating its Shoreline Master Program, which constitutes the rules that govern development along the lakefront. A number of questions have arisen concerning the program and, in particular, concerning shoreline stabilization, restoration planning and water quality. This handout provides summary information on these issues – for more information please visit the website (www.ci.kirkland.wa.us and search Shoreline) for this project.

A. BACKGROUND INFORMATION

What is the Shoreline Master Program (SMP)?

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 have included conservation of natural areas, public access to the shoreline, view corridors from the adjacent public right-of-way and regulations for water-oriented recreational uses and other 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, view corridors across properties and a network of shoreline parks which have been established over time.

Why update the SMP?

Residents and visitors remark on the special quality of the Kirkland's lakefront. The City'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 space along the shoreline provide abundant opportunities for public access to the shoreline. At the same time, the shoreline area is one of Kirkland's most valuable and fragile of Kirkland's natural resources. While the City's shoreline residents, visitors and property owners have acted as good stewards of this important resource, over time our knowledge of issues affecting this special environment has grown, revealing new issues that need to be addressed in order to protect this valued shared resource.

In 2003 the State issued a comprehensive set of guidelines addressing requirements for local Shoreline Master Programs, which are contained in Chapter 173-26 of the Washington Administrative Codes.

The City's SMP must meet the new State Guidelines and the Department of Ecology must approve the City's updated SMP. After review of the City's SMP and the new State Guidelines, the City has determined that the current SMP is not consistent with many key requirements of the new Guidelines. Therefore, the City will be amending sections and adding new sections to make the City's SMP consistent with the State Guidelines.

What is the process being used to update the SMP?

City staff is in the process of drafting new regulations and will be presenting these to the Planning Commission and Houghton Community Council now through February, 2009. It is anticipated that the Planning Commission will hold a hearing on the proposed SMP, including policies and regulations, in Spring of 2009 and will be forwarding their recommendations to the City Council for consideration

How can I get involved?

- Attend the Planning Commission meeting on November 20, 2008 & the Houghton Community Council meeting on November 24, 2008 at 7pm in Kirkland City Hall.
- Visit our website (www.ci.kirkland.wa.us and search Shoreline).
- Review and comment on draft shoreline goals, policies & regulations (available through the website).
- Join the listserv (available through the website).
- Submit written comments.

There will be opportunities for the public to be involved throughout the update process.

For more information

Contact **Teresa Swan, Senior Planner**
tswan@ci.kirkland.wa.us
P: (425) 587-3258
F: (425) 587-3232
Department of Planning & Community Development
123 Fifth Avenue, Kirkland WA 98033
Kirkland, WA 98033

in Summer of 2009. Once the final plan is adopted by Council it will be sent to the Department of Ecology for their review and approval.

The Planning Commission and Houghton Community Council meetings will be the primary forum for shoreline discussions. These meetings are open to the public with opportunity for public comment.

Where are we in the process?

The Planning Commission has prepared draft shoreline goals and policies and now is discussing new shoreline regulations. Some of the new regulations being considered are as follows:

- For new development and major redevelopment:
    - Possible increased setbacks from the shoreline
    - Shoreline restoration that is appropriate to the existing site conditions, which could include bulkhead removal (if feasible) and replacement with soft structural shoreline stabilization measures Other restoration techniques include placement of gravel in front of an existing bulkhead or planting of native vegetation.
    - Incorporation of natural shoreline vegetation planted at the shoreline edge
- Standards for application of pesticides, herbicides, and some fertilizers near the shoreline edge.
- Increases in buffer setbacks from wetlands & new wetland rating system for wetlands associated with Lake Washington
- Revised standards for piers to protect and enhance fish habitat
- Revised standards for the existing view corridor & public access requirements along the shoreline.

This information sheet focuses primarily on the issues related to shoreline stabilization that has come up as part of the public meetings being held for the SMP update.

What has changed?

Since the original adoption of the City's first Shoreline Master Program, in the 1970's there have been substantial changes to the lakefront environment.

The shoreline ecology has declined over time. Degraded shoreline conditions first started with the lowering of the lake water surface levels when the Ballard Locks were constructed. Since then properties have been developed and bulkheads (between 80% and 90% of the Kirkland shoreline has bank armoring) have been built that have contributed to a loss of woody debris, a reduction in riparian vegetation, the elimination of shallow water habitat, and alteration of the lakebed materials. All of these conditions reduce juvenile Chinook salmon habitat quality.

More docks have been constructed that provided abrupt transitions from open to darkly shaded areas, reduced aquatic vegetation, and increased the presence of in-water structures which adversely have affects aquatic organisms, prey for the juvenile Chinook, and benefits predators of Chinook. Docks also negatively affect the migration movements of juvenile Chinook. Paved surfaces have increased with construction of new structures that has been correlated with increased velocity, volume and frequency of surface water flows. These and other changes have negatively impacted habitat associated with Lake Washington.

In 1999, Chinook salmon and bull trout were listed as Threatened under the Federal Endangered Species Act. Further, in 2007, Puget Sound Steelhead were listed as Threatened under the federal Endangered Species Act. Habitat loss and modification are believed to be one of the major factors determining the current status of salmonid populations. Lake Washington is a significant rearing and migratory habitat for juvenile Chinook salmon. As a result, shoreline habitat conditions are important for juvenile Chinook using Lake Washington.

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. Recent research shows that juvenile Chinook salmon need shallow water habitat, with a gentle slope, small sized materials along the lake bottom (such as sand or gravel), and overhanging vegetation as they migrate and rear in Lake

Washington. Yet, these conditions are now rare along Kirkland's shoreline.

What is being done to address Salmon Recovery?
In 2005, after nearly five years of collaboration among citizens, scientists, community groups, businesses, environmental groups, public agencies and elected officials, 27 local governments, including Kirkland, ratified the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. This plan, together with other plans prepared throughout the Puget Sound region, became part of the official Puget Sound Salmon Recovery Plan approved by NOAA Fisheries Service in 2007. WRIA 8's efforts at the local jurisdiction level focus on the conservation and restoration of salmon habitat.

For Lake Washington nearshore areas, the WRIA 8 key recommendations are to reduce bank hardening, restore overhanging riparian vegetation, replace bulkheads and rip-rap with sandy beaches and gentle slopes, use plastic mesh rather than solid wood dock surfaces and reduce the number of docks by replacing single-family docks with shared docks, where possible. The SMP needs to be amended to reflect these recommendations.

What must the new SMP contain?

In 2003 the State issued a comprehensive set of guidelines addressing requirements for local Shoreline Master Programs, which are contained in Chapter 173-26 of the Washington Administrative Codes. The guidelines were developed as part of a year-long negotiated settlement that also led to adoption of shoreline legislation, and are the result of extensive negotiations and discussions with a broad range of interested participants, including the environmental community, property owners, and business interests.

As part of the State Guidelines, there are certain requirements that the City's new SMP must meet. After the local plan is approved by the City Council, the plan will be transmitted to the Department of Ecology, which must approve the new Shoreline Master Program. The following describes some of the key new requirements from the State Guidelines:

- **No Net Loss**. The Guidelines require that the impacts of establishing uses or conducting development are identified and mitigated with a final result that is no worse than maintaining the current level of environmental resource productivity or "no net loss". This means that through implementation of the updated SMP, the existing condition of shoreline ecological functions should remain the same or be improved over time. The current level is established based upon the 2006 Final Shoreline Analysis.

  The no net loss standard is designed to halt the introduction of new impacts to shoreline ecological functions resulting from new development. Impacts resulting from shoreline uses, when they cannot be avoided, must be reduced by other SMP environment designations and regulations which follow the required mitigation sequence. Mitigation sequencing sets a priority to first avoid, then minimize, rectify, reduce or compensate for impacts. Since most types of new shoreline developments produce at least some degree of impact to ecological functions, the no net loss standard means that the SMP must contain provisions for mitigating these unavoidable impacts.

  A no net loss of ecological functions determination will need to be justified by the City through a Cumulative Impact Analysis, which essentially anticipates build-out of shoreline areas based on the intensity of development allowed through the updated SMP. This determination must conclude that further build-out and redevelopment of the local shoreline will not further threaten existing shoreline ecological functions.

- **Restoration Planning.** The Guidelines also require jurisdictions to plan for restoration of ecological functions where they have been impaired. It is intended that local government contribute to restoration by planning for restoration and that such restoration occur through a combination of public and private programs and actions. The goal is to improve the overall condition of habitat and resources within the shoreline area over time, when compared to the existing conditions as documented in the 2006 Final Shoreline Analysis.

Example of shoreline restoration located north of Kirkland. Design by The Watershed Company. Photograph courtesy of The Watershed Company.

- **Shoreline Stabilization**. The Guidelines and the proposed regulations make clear distinctions between hard structural shoreline stabilization and soft structural shoreline stabilization. Soft shoreline stabilization typically includes a mix of gravels, cobbles, boulders, logs and native vegetation placed to provide shore stability, whereas hard shoreline stabilization typically uses concrete, boulders, dimensional lumber or other materials to construct linear, vertical or near-vertical faces, such as bulkheads, rip-rap, groins, and similar structures. Attached is information from King County called "Better Than Bulkheads" that shows examples of shorelines with soft stabilization.

  The Guidelines limit the use of hard shoreline stabilization measures, such as bulkheads, because of the impacts of these structures on shoreline processes, including sediment transport and biological functions. New, enlarged, and replacement hard shoreline stabilization measures may only be permitted if they are supported by a geotechnical report that addresses the necessity of the shoreline stabilization measure. Further, if the proposed development is new, there must also be a demonstration that non-structural measures are not feasible or not sufficient. Replacement structures are treated the same as new shoreline stabilization structures.

B. SHORELINE STABILIZATION AND RESTORATION

How will the new SMP regulate Shoreline Stabilization?

As noted above, Kirkland's shoreline has been significantly armored by past development activities. As part of the SMP update, the City needs to consider how to minimize new hardening, while also addressing how best to restore some of the ecological functions that have been impacted by past activities, while at the same time protecting property from damage. This is a significant challenge given the past degree of shoreline hardening. At this time, no decisions have been made on how best to approach this issue. The Planning Commission is considering a range of different options that will need to be more fully discussed before any recommendations are made.

In order to respond to the State Guidelines for new, enlarged, or replacement shoreline stabilization structures, the Planning Commission is evaluating draft regulations that would include the following provisions:

- A requirement for a geotechnical analysis for new, enlarged and replacement hard shoreline stabilization structures.
- Implementation of soft structural shoreline stabilization techniques, where feasible with new development, if it will provide the necessary protection in lieu of a hard structural shoreline stabilization technique.

The Planning Commission is also considering what mitigation should be required to ensure that these projects minimize adverse impacts. The U.S. Army Corps of Engineers (Corps), who is also responsible for permitting associated with shoreline stabilization, generally requires implementation of a native shoreline planting plan and enhancement of shallow-water habitat through placement of gravel.

SHORELINE MASTER PROGRAM UPDATE

Example of shoreline restoration located north of Kirkland. Design by The Watershed Company. Photograph courtesy of The Watershed Company.

The Planning Commission is also considering how to address major repairs to existing bulkheads and what requirements this work should be required to meet. It should be noted that the Corps and the Washington State Department of Fish and Wildlife (WDFW) both have jurisdiction over many bulkhead construction or repair projects, and are strongly encouraging property owners to implement fish- and wildlife-friendly shoreline protection measures when feasible.

The Corps has recently issued a Programmatic Consultation which provides a streamlined permitting process for projects which, depending upon the existing site conditions, either result in replacement of hard structural shoreline stabilization structures with soft structural shoreline stabilization measures, or, if this is not feasible, soften the shoreline edge by placing spawning gravels in front of existing bulkheads or installing plantings on the shoreline edge.

The City is trying to ensure that our own policies are consistent with these provisions in order to provide a more coordinated permitting process across the local, state and federal jurisdictions. As an example, the draft regulations propose a lower level of review for soft structural shoreline stabilization measures than hard structural stabilization measures. In some cases, the soft structural shoreline stabilization may qualify as a restoration project and only require a Shoreline Exemption from the City, saving time and money.

Is there a way to include flexible approaches?

In order to better enable shoreline property owners to implement soft shoreline stabilization approaches in Kirkland, the proposed regulations would allow placement of fill material for purposes of habitat enhancement waterward of the ordinary high water mark. This will allow property owners who are not able to remove their hard structural stabilization to improve shoreline function, and increases design flexibility for those who can remove their hard structural stabilization. In addition, for those restoration projects that result in shifts of the ordinary high water mark landward of its existing location, the waterfront setbacks and lot coverage would be measured from the pre-restoration ordinary high water mark (OHWM) location.

Has the City considered the need for bulkheads and other hard shoreline protective structures due to narrow lot depth, exposure to extremely rough water conditions, and existing development located close to the water?

Yes, protection of property owners' investments along and near the shoreline is one of the City's objectives of the SMP update.

The term 'soft structural shoreline stabilization' is somewhat imprecise, since it does not reflect the fact that these designs use large boulders, log and other features to attenuate wave energy and stabilize the shoreline. The City's environmental consultant, The Watershed Company, has extensive experience working with property owners to install these designs in similar situations as are presented along Kirkland's shoreline. Monitoring has shown these installations have been successful in stabilizing the shoreline when installed properly.

However, not all properties may be viable for a softer shoreline design. As a result, it is important that the following variables be considered as part of any proposal to modify existing shoreline stabilization structures:

- Wave fetch and boat-driven wave patterns.
- Bathymetry (shallow or steep slope below the water line).
- Topography (shallow or steep slope above the water line).
- Depth of water at shoreline face.
- Location of existing residences, utilities, or other built structures relative to the shoreline edge.

Given restricted conditions, there may be other restoration alternatives that can be incorporated, such as placing gravel and other materials in front of the bulkhead or planting along the top of the bulkhead.

Will I be required to replace my bulkhead?

No, you will not be asked to replace existing, legally established bulkheads, except in limited circumstances. If you are proposing to enlarge or replace your bulkhead, you may be asked to study the feasibility of incorporating alternative shoreline stabilization techniques, such as the soft structural shoreline stabilization measures noted above, as part of this work.

With new development or significant redevelopment of properties, the City is also considering how best to initiate restoration of the shoreline. Restoration could involve a number of different actions, such as planting vegetation along the shoreline edge, installing fill material for purposes of habitat enhancement waterward of a bulkhead, partial removal of a bulkhead to create a coved area protected by large boulders, log and other features, or replacement of a bulkhead with soft shoreline stabilization measures (if feasible).

One of the options being explored would be to evaluate the potential for shoreline restoration as part of new development or significant redevelopment. At this time, no decision has been made about this concept.

How will the potential requirements for soft stabilization affect lakeshore property owners? Will lakefront property owners be required to have a professional study done on their property in order to retain bulkheads?

Under the requirements of the State Guidelines, a geotechnical report needs to be completed and submitted for review in order to construct a new bulkhead, or add to or replace an existing bulkhead. The City is working with the Department of Ecology to determine if there is any flexibility in this requirement for circumstances in which the need for a stabilization structure is clear, given the existing site conditions.

How will the City, as the largest waterfront property owner, pay for compliance with its own policies? Have there been cost estimates?

Development activities on City-owned properties will be required to meet the same standards as private property. Many of the requirements for soft stabilization that the City is considering are already addressed by the Corps and WDFW that have permitting authority – therefore the City, in many cases, is not imposing new requirements that would not otherwise need to be met. As an example, in examining approaches to repair a portion of an existing bulkhead at David E. Brink Park, the City decided, after consultation with state and federal agencies, to pursue a soft shoreline stabilization a mix of gravels, cobbles, boulders, and native vegetation placed to provide shore stability. The proposed design also creates a new beach cove area, allowing for public access to the lake which did not exist before due to the vertical nature of the bulkhead.

Is the City proposing to remove all lawns from our public parks?

The City is not proposing to remove all lawn from our public parks, but with new projects the City is considering how to implement shoreline restoration planning concepts. For instance, in future months the City will be installing native vegetation along the shoreline edge of a number of shoreline parks and hopes to use this restoration technique as an educational resource.

Have any studies been commissioned to determine what damage may occur as a result of the City removing all armoring from its parks and other properties?

As noted above, each property needs to be independently evaluated to determine the appropriate restoration approach that should be used, considering

such factors as wave patterns, shoreline and property characteristics, and location of improvements.

C. STORM WATER RUNOFF

What is being done to reduce the volume of runoff into Lake Washington? How do you plan to deal with polluted and toxic runoff from Lake Washington?

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.

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.

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. The following is a listing of some of these efforts:

- The City is in the process of adopting a new surface water design manual. These new standards will provide much greater water quantity reduction standards, which will help to address the amount of runoff leaving developed sites. In particular, the new standards will facilitate the use of low impact development (LID) techniques. LID is a set of techniques that mimic natural watershed hydrology by slowing, evaporating/transpiring, and filtering water before it reaches a stream channel, thereby reducing the volume of runoff.
- The City implements a program to reduce pollutants in stormwater runoff from new development, redevelopment, and construction sites.
- Kirkland Municipal Code Chapter 15.52 addresses control of stormwater runoff from new development, redevelopment and construction sites and includes a permit review and approval process, design standards, erosion control requirements, maintenance standards, inspection and maintenance of post-construction permanent stormwater controls, and enforcement provisions.
- The City has a program that inspects businesses for stormwater compliance. The City annually inspects private stormwater detention systems and businesses for hazardous material handling. These inspections help ensure that materials are not getting into the public/private storm system, which eventually finds it way to our lakes, streams and wetlands.
- City staff maintains records of review, inspection, and enforcement of erosion control, spills and complaints.

More information on City-wide efforts relating to stormwater can be found on the City's website under the Storm and Surface Water link under the Public Woks Department page.

Lakeside Living

Better than bulkheads

Bulkheads can create problems for salmon.

Do all lakeshore properties need a bulkhead?

No. Protecting your shoreline depends on the amount of exposure, the slope, length of fetch, how you use your shoreline – or how you would like to use your lakeshore.

Why bulkheads are bad for salmon

Which types of bulkheads pose problems for salmon?

Vertical wall bulkheads cause the greatest environmental damage. These can be straight concrete walls, gunnite applied over natural walls or cliffs, wood walls, or rip-rap rock walls.

Photo and design: The Watershed Co.

How do bulkheads create problems for salmon?

Bulkheads create deeper water with steeper gradient and a coarser bottom substrate. Waves naturally travel along a horizontal plane, dissipating energy over distance and as they hit shallower bottom, rocks, or shoreline vegetation. But if a wave is suddenly stopped by a vertical wall, the wave energy will increase in amplitude as it reflects off the wall and it is added to by subsequent incoming waves. Instead of moving on a horizontal plane, the wave energy moves up and down, and something has got to give. This causes sediment at the base of the wall to get scoured out. The finer sands are removed as the gravel gets eroded away and the bottom substrate gets coarser. The result is a beach that is much deeper and steeper. Baby salmon need shallow beaches with a gentle gradient to hide from predators that hunt in deeper waters. Bulkheads result in a sudden drop off, which is bad for salmon and people of all ages

Photo and design: The Berger Partnership

Photo and design: The Watershed Co

The scouring action can also cause failure of the bulkhead as the base erodes away. Vertical wall bulkheads can accelerate erosion on neighboring properties if they are not tied into the same bulkhead system. The result is a continuous hardening of the lakeshore.

Rip-rap rock walls can create problems by providing habitat for predators that feed on young Chinook. Fish that feed on juvenile salmon, such as sculpins and bass, hide in the rock crevasses where they can ambush unsuspecting baby fish.

Photo and design: The Berger Partnership

Better than bulkheads

Are there alternatives to vertical wall bulkheads to protect your shoreline?

Yes, shoreline designers have come up with engineered solutions to "soften" the shoreline, while still protecting it from erosion. These features employ the use of terracing, large flat rocks, shallow pools, logs, and vegetation to prevent erosion and provide an attractive, usable shoreline.

Photo and design: Waterfront Construction

Build a Beach

To reduce the slope where a vertical wall bulkhead exists, the shoreline can be pulled back, creating a shallower grade. In its place a beach cove is created.

Often the top of a vertical wall bulkhead forms a harsh edge or is occupied by a section of lawn that is rarely used. This can be a dangerous place to golf or have small children play. The alternative is a beach that may be more usable. By pulling the shoreline back, the homeowner isn't really losing property but converting it to a new format, which can be quite attractive and very functional, especially in terms of improving access to the water. As the water along this modified shore will be shallower, it becomes easier and safer to access.

Alternatives to vertical wall bulkheads can be better for fish

- Less turbulence.
- Shallower grade.
- Protection from predators.
- Finer sandy bottom.
- Increased food source.

Benefits for property owners

- Easier access to beach and water, especially nice if you have a kayak or human-powered craft.
- Shallow gradient shore and water can be safer, especially if you have small children.
- More usable shoreline with beach and cove.
- Reduced maintenance.
- Potential for increased property values.
- The pride and pleasure knowing that there are baby salmon rearing off your shore.

Plants, logs, and rocks

Skillful shoreline designers and contractors can combine the use of logs, rocks, and vegetation to stabilize the shoreline and create an attractive lakeshore landscape.

High Beach Cove

The shoreline can be more useful for young fish and homeowners with creation of a high beach cove.

Shoreline Stabilization

The following is an overview of the permitting agencies and permit requirements that are involved with construction of a new or replacement bulkhead. The permit complexity varies with the project; both state and federal agencies provide a streamlined permitting process for shoreline stabilization techniques that rely upon soft structural shoreline alternatives.

Responsible Agency	Permit	Purpose	Trigger Activity	Costs	Timeframe	Internal Review Process	Permit Dependency	Special Notes
City of Kirkland	Letter of Exemption	Generally, if developments meet precise terms of at least one exemption listed in WAC 173-27-040, they may be granted exemption from substantial development permit requirements.	Examples of exempt activities: normal maintenance or repair of existing structures, construction of normal protective bulkhead common to a single family home. (WAC has complete list).	None.	Highly dependant on proposal; average timeframe ranges four to six weeks	If federal permits are required, local govt prepares a letter of exemption, addressed to the applicant and Ecology indicating specific exemption provision.	If federal permits are required (especially Corps 404 and Section 10), applicant may need to provide proof of compliance with state laws (see internal process column).	WAC 173-27-040 provides specific exemptions for: • Construction of a normal protective bulkhead to protect a single-family residence. A normal protective bulkhead is not exempt if constructed for the purpose of creating dry land. • Normal maintenance or repair of existing structures or developments An exemption from the substantial development process is not an exemption from compliance with act or the local master program, nor any other regulatory requirements.
	Shoreline Substantial Development Permit	To provide public involvement in the permit process and to foster appropriate uses and protection of the shorelines of the state.	Interfering with normal public use of water/shorelines of the state, or developing or conducting an activity valued at $2500 (adjusted annually for inflation) or more on the water or shoreline area.	$4,212.00	Highly dependent on proposal; average timeframe ranges from three to four months.	Application submitted to local government; upon final decision by local government, permit is filed with Department of Ecology.	SEPA compliance must be met prior to local permit decisions.	

Responsible Agency	Permit	Purpose	Trigger Activity	Costs	Timeframe	Internal Review Process	Permit Dependency	Special Notes
	Shoreline Conditional Use Permit or Variance Review Process	To provide a system within the Master Program which allows flexibility in the application of use regulations.	Projects requiring a Shoreline Permit. Projects meeting specific criteria identified in the Master Program or unclassified uses need a Conditional Use Permit; a Variance is an exception or waiver of specific size standards.	$6,877.00	Highly dependent on proposal; average timeframe ranges from four to six months. After receipt of Local Government permit decision, the Department of Ecology may take up to 30 days to approve, condition, or deny the permit.	After local govt approves conditional use or variance permit, they submit it to Ecology for review. Ecology notifies local govt of its decision and does an official filing.	SEPA requirements must be completed prior to local permit decisions.	Applicants burden of proof is very important in variance applications. Variance criteria are very closely scrutinized and must all be fulfilled for the permit to be approved at the state level.
	State Environmental Policy Act (SEPA) Determination	SEPA requires that state and local agencies review proposals to identify environmental impacts.	Projects located within lands covered by water.	$520.00	Highly dependent on proposal; average timeframe ranges four to six weeks	Application submitted to local government; upon final decision by local government, permit is filed with Department of Ecology.	SEPA process is one of the first steps in permitting. All applicable agency review is under one SEPA process.	
Washington State Department of Fish and Wildlife	Hydraulic Project Approval (HPA)	To provide protection for fish, shellfish, and their habitats.	Work that uses, diverts, obstructs, or changes the natural flow or bed of state waters.	No charges for HPA.	For a standard HPA, max.of 45 calendar days after receipt of a complete app. and SEPA compliance; max of 15 days for an expedited HPA; immediately for emergency HPA.	Applications are sent and logged in at Headquarters and then reviewed and acted on by biologists in the regional offices.	SEPA compliance must be complete prior to issuance of the HPA.	Streamlined HPAs are available for qualifying fish habitat enhancement projects.

Responsible Agency	Permit	Purpose	Trigger Activity	Costs	Timeframe	Internal Review Process	Permit Dependency	Special Notes
U.S. Army Corps of Engineers, Seattle District Regulatory Branch	U.S. Army Corps of Engineers 404 & Section 10 Nationwide Permits (NAP) (Programmatic Consultation)	Provides authorization on a nationwide level for activities with minimal environmental impacts which do not require individual permits as long as they comply with the NWP conditions. Programmatic Consultation is a process where the required Section 7 (Endangered Species Act) consultation is conducted by the Corps of Engineers for certain types of work activities. Through the programmatic process, the Section 7 consultation is done "ahead of time" so that when an application for a programmatic work activity is received, the consultation part of the Nationwide Permit evaluation process has already been completed, thus streamlining the permit process.	Section 404: discharges of dredged or fill material into waters of the U.S., including special aquatic sites such as wetlands. Section 10: any work in, over or under navigable waters of the U.S., or which affects the course, location, condition or capacity of such waters. Includes construction and maintenance of piers, pilings, wharfs, and bulkheads in Lake Washington.	No charges for Corps permit.	Some Nationwide permits must be issued by the Corps within 30 to 45 days of the Corps' receipt of a complete application. This timeline does not apply for those projects that must go through ESA consultation.	Varies depending on which NWPs, RGPs or Programmatics are used.	Water Quality Certification (401) and Coastal Zone Management (CZM) are often pre-approved. It is necessary to check each Nationwide Permit or RGP for the requirements.	Three potential scenarios for bulkhead replacement are covered under a Programmatic Consultation: • Cut Beach, Place Gravel Fill and Re-vegetate • Gravel Fill Beach and Re-vegetate • Re-vegetated Armored Banks (only for bulkheads within 25 feet of residence) If bulkhead replacement projects do not meet this guidance then a project specificl ESA consultation with the Corps of Engineers and the Services will be necessary. A project specific ESA consultation requires the project proponent to submit some form of documentation to the Corps. This information is reviewed by the Corps and formally submitted to the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (Services) for their review and concurrence. The document submitted under an individual ESA consultation is call a Biological Evaluation (BE). Proposed projects will be evaluated based on a combination of site-specific conditions, the effects of the project, and measures proposed to reduce impacts and improve habitat. For a given project, measures should be chosen to reduce the potential impacts of shoreline pier and bulkhead structures and to provide a diverse shallow water and riparian environment to benefit aquatic species. For most proposed shoreline stabilization and overwater structures, both structural and habitat improvement impact

Responsible Agency	Permit	Purpose	Trigger Activity	Costs	Timeframe	Internal Review Process	Permit Dependency	Special Notes
Department of Ecology	Coastal Zone Management Certification (CZM)	To ensure compliance with state and federal Clean Water Act, Clean Air Act, Wa. State Env. Policy Act, Shoreline Management Act & Energy Facility Site Evaluation Criteria.	Conducting projects authorized by the federal agencies and/or applying for certain federal permits or funding.	None	CZM decision must be made within six months of Corps of Engineers public notice.	Ecology Headquarters, Shorelines and Environmental Assistance Program.	Water Quality Certification, SEPA compliance, Shoreline permit, Air permits & compliance with Energy Facility Site Evaluation Criteria if applicable.	
	Water Quality Certification (401)	Verifies project will comply with state water quality standards and other aquatic resource protection. Reviews both project construction and operation activities.	Application for federal license or permit that could affect water quality. Under the Clean Water Act, states have authority to approve, deny, or condition any project in wetlands or other state waters.		Typically 3 months but for complex projects, up to 1 year.		SEPA. State review occurs after receipt of federal notification.	

Analysis of Consistency of Each Inventory Segment with Environment Designation Criteria.

Environment Designation Criteria (WAC 173-26-211)	Supporting Shoreline Inventory Information		
	Segment B	**Segment C**	**Segment D**
A "**Natural**" 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;	✓ Yarrow Bay in particular is virtually ecologically intact. Juanita Bay is less so, in some areas, although much of Juanita Bay Park and extending up the Forbes Creek corridor have high ecological value. The segment's shoreline has been altered very little: 7% armored, 1.5 ft^2 over-water cover/linear foot, and approximately 3% impervious surface. See Tables 6-8, Section 4.2 of *Final Analysis Report.* Table 19 shows Moderate and High levels of function for 15 indicators.	**NO.** The shoreline is heavily altered: 83% armored, 9 ft^2 over-water cover/foot, and approximately 29% impervious surface. See Tables 6-8, Section 4.3 of *Final Analysis Report.* Table 18 shows Low and Low-Moderate levels of function for 15 indicators.	**NO.** The shoreline is heavily altered: 90% armored, 24.1 ft^2 over-water cover/foot, and approximately 55% impervious surface. See Tables 6-8, Section 4.4 of *Final Analysis Report.* Table 18 shows Low and Low-Moderate levels of function for 15 indicators.
(B) The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or	✓ Both Yarrow and Juanita Bay portions contain large wetland areas. Yarrow Bay is a unique lakeshore habitat in Kirkland, and is uncommon in Lake Washington. In particular, Juanita Bay Park is utilized for educational purposes. See Section 4.2.3 of *Final Analysis Report*	**NO**	**NO**
(C) The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.	✓ Yarrow Bay in particular is very sensitive to alteration, as are the undeveloped wetland areas of Juanita Bay Park and associated wetlands continuing to the east of the Park.	**NO.** Segment C could support additional upland development without degrading the baseline condition further.	**NO.** Segment D could support additional upland development without degrading the baseline condition further.

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Environment Designation Criteria (WAC 173-26-211)	Supporting Shoreline Inventory Information		
	Segment B	**Segment C**	**Segment D**
Assign a "**High-Intensity [Urban Mixed]**" environment designation to shoreline areas within incorporated municipalities, urban growth areas, and industrial or commercial "rural areas of more intense development," as described by RCW 36.70A.070, if they:			
currently support high-intensity uses related to commerce, transportation or navigation; or	✓ A small area (3%) of Segment B in the northeast corner of Juanita Bay is zoned Commercial, Office and Office/Multi-Family. Actual uses in these zones include some office space, Michael's parking area, vet clinic, condominium, and undeveloped wetland areas	**NO**	✓ 29% of the segment is zoned Commercial, and includes private marinas, hotels, restaurants, and office space. In addition, Marina Park hosts high-intensity commerce and transportation-related facilities and activities, such as a public marina, public boat launch, and Argosy Cruises. Other high-intensity uses in Marina Park include the summer concert series, and special events at the rentable Pavilion.
are suitable and planned for high-intensity water-oriented uses	✓ Portions of Juanita Beach Park (outside of Juanita Creek and its associated buffer) are suitable and planned for high-intensity water-oriented uses as part of development of the approved Master Plan, including short-term moorage, a boat rental float, a bathhouse with concessions and boat rental activities, a lakefront promenade, a community commons that can be used for community events, including a Farmer's Market, movie nights, as well as potential future urban amenities including restaurants, etc.	**NO**	✓ Low probability for additional high-intensity water-oriented uses – segment largely built out. Marina Park has the greatest potential for additional development of water-oriented uses.

ATTACHMENT 18

Environment Designation Criteria (WAC 173-26-211)	Supporting Shoreline Inventory Information		
	Segment B	**Segment C**	**Segment D**
Assign an "**Urban Conservancy**" environment designation to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring of the ecological functions of the area, that are not generally suitable for water-dependent uses and that lie in incorporated municipalities, urban growth areas, or commercial or industrial "rural areas of more intense development" if any of the following characteristics apply:			
(A) They are suitable for water-related or water-enjoyment uses;	✓ The park areas of Juanita Bay are suitable for and experience a mix of water-related and water-enjoyment uses, including boating, swimming, and birding, among others. Yarrow Bay is suitable for and experiences passive water-enjoyment uses, such as non-motorized boating, wildlife observation, etc.	✓ Segment C contains three public parks comprising 24% of the shoreline that provide a mix of water-related and water enjoyment uses.	✓ Segment D contains six public parks comprising 18% of the shoreline that provide a mix of water-related and water enjoyment uses.
(B) They are open space, flood plain or other sensitive areas that should not be more intensively developed;	✓ Both Yarrow and Juanita Bays contain large wetland and floodplain areas. See Section 4.2.3 and Figures 10 and 11 of *Final Analysis Report*.	✓ Parks in this segment total 24% of the area. The parks generally do not contain sensitive areas.	✓ Parks in this segment total 18% of the area. The parks generally do not contain sensitive areas.
(C) They have potential for ecological restoration;	✓ All segments have potential for ecological restoration, although the probability of restoration occurring is highest on publicly owned lands. Segment B has the highest percentage of parks/open space. Segments C and D also contain a number of developed parks, many of which have shoreline armoring and limited shoreline vegetation that could benefit from enhancement.		
(D) They retain important ecological functions, even though partially developed; or	✓ The slightly developed sections of Segment B, primarily Juanita Beach Park and the immediate surrounding property to the west, as well as the nearshore portions of Juanita Bay Park retain substantial ecological function. Both areas have shallow-water habitat, no shoreline armoring, and Juanita Bay Park contains substantial aquatic and riparian vegetation.	**NO**. The shoreline is heavily altered: 83% armored, 9 ft^2 over-water cover/foot, and approximately 29% impervious surface. See Tables 6-8, Section 4.3 of Final Analysis Report. Table 18 shows Low and Low-Moderate levels of function for 15 indicators.	**NO**. The shoreline is heavily altered: 90% armored, 24.1 ft^2 over-water cover/foot, and approximately 55% impervious surface. See Tables 6-8, Section 4.4 of Final Analysis Report. Table 18 shows Low and Low-Moderate levels of function for 15 indicators.

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Environment Designation Criteria (WAC 173-26-211)	Supporting Shoreline Inventory Information		
	Segment B	**Segment C**	**Segment D**
(E) They have the potential for development that is compatible with ecological restoration.	✓ Juanita Beach Park and the more developed portions of Juanita Bay Park could accommodate additional development that, when coupled with appropriate restoration, could result in net improvements to ecological functions. However, it is likely that any development of the Yarrow Bay Wetlands and contiguous wetland areas could not be off-set by restoration.	✓ Entire segment has potential for ecological restoration, although the probability of restoration occurring is highest on publicly owned lands.	✓ Entire segment has potential for ecological restoration, although the probability of restoration occurring is highest on publicly owned lands. Segment contains a number of developed parks, many of which have shoreline armoring and limited shoreline vegetation that could benefit from enhancement.
Assign a "**Shoreline Residential [Low Density Residential]**" environment designation to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, incorporated municipalities, "rural areas of more intense development," or "master planned resorts," as described in RCW 36.70A.360, if they are:			
predominantly single-family residential development or	**NO**. Only 10% of the segment is zoned for residential use. Currently, small areas of Segment B at the north end of Juanita Bay contain condominiums.	✓ 76% of the segment is zoned for low-density residential uses.	**NO**. Segment is predominately zoned for high or moderate density residential, commercial, or mixed-use development.
planned and platted for low-density residential development	**NO**. As identified in Section 4.2.1 of the *Final Analysis Report*, several properties along the west edge of the Yarrow Bay Wetlands are planned for low density residential development, but are mapped as wetland, floodplain, medium landslide hazard area, seismic hazard area, hydric soils, and/or are protected critical area buffers, and as such are likely undevelopable unless a shoreline variance is obtained. Assignment of a Shoreline Residential environment to these areas would be	✓ Residential capacity in this segment would allow for an additional 13 single-family units.	✓Segment contains a small area of property developed and planned for low-density residential development.

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Environment Designation Criteria (WAC 173-26-211)	Supporting Shoreline Inventory Information		
	Segment B	**Segment C**	**Segment D**
	inconsistent with the biological and physical character.		
[New designation not included in WAC] Assign an "**Urban Residential**" environment designation 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	**NO**. Only 10% of the segment is zoned for residential use. Currently, small areas of Segment B at the north end of Juanita Bay and west of Juanita Beach Park contain condominiums.	**NO**. 76% of the segment is zoned for and developed with low-density residential uses.	✓ 53% of the segment is zoned for and developed with medium-density residential uses.
planned for medium or high-density residential development	✓ Existing high-density residential development and/or zoning is present in the following areas: 1) at northwest edge of Juanita Bay, 2) west of Juanita Beach Park, and 3) on the east side of 98th Avenue NE.	**NO**. Residential capacity in this segment would allow for an additional 13 single-family units.	✓ Residential capacity in this segment would allow for an additional 401 multi-family units
PRELIMINARY DESIGNATIONS	• **Natural** • **Urban Conservancy** • **Urban Mixed** • **Urban Residential**	• **Low Density Residential** • **Urban Residential** • **Urban Conservancy**	• **Urban Mixed** • **Urban Conservancy** • **Urban Residential** • **Low-Density Residential**

ATTACHMENT 18

Commenter	Identifier	Subject	Sub-Topic	Summary of Comment	Follow-up/ Response	Context
Citizen/NGO (SPOCA)[1]	3.3	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	The Shoreline Master Plan's restoration component should include criteria regarding the installation of shoreline bulkheads, as well as the net-benefits of removing bulkheads.	Emphasis that the City was not attempting to return Lake Washington to predevelopment conditions, but rather limit the negative impacts of future development on Lake Washington.	*Correspondence (5-17 November 2007)*
Citizen/NGO (SPOCA)	3.3	Species/Habitat	Invasive Species	Urged the city to continue its current emphasis on removing and controlling invasive species		*Correspondence (5-17 November 2007)*
Citizen/NGO (SPOCA)	3.3	Shoreline Regulation	Storm Water	Advocated expanding the Shoreline Master Plan study area to include additional sources of non-point pollution for Lake Washington.	Regarding the issue of run-off, the City was engaged in on-going efforts, including education and incentives, to help shoreline property owners address these concerns.	*Correspondence (5-17 November 2007)*
Citizen/NGO (SPOCA)	3.3	Shoreline Regulation	Boating practices	Expressed concern over Appendix F of the Shoreline Master Plan Draft Inventory, stating that it misrepresented the negative impacts of marina and recreational boats on the shoreline, since the causes of these impacts were already illegal.	Marina regulations references use of Best Management Practices.	*Correspondence (5-17 November 2007)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Research	Best Available Science	Requesting careful consideration be placed on changes made to local SMP. Science being used to drive changes are inconclusive and do not provide a clear determination of impacts on water quality of fish life.		*Correspondence (2-28-2008 and May 1, 2008)*
Citizen/NGO (SPOCA)	2.6; 2.8; 3.3	Shoreline Regulation	Boating practices	Power/pump-out stations could be offered boaters to encourage them from dumping raw sewage (such as Marina Park).	Comment forwarded to Parks and Community Services Dept.	*Report on the Tour of Innovative Shoreline Design (30 September 2006) ; Correspondence (5-17 November 2007)*
Citizen/NGO (SPOCA)	3.3	Shoreline Regulation	Storm Water	Referred the City to a recent study concerning efforts by the Denny Park Neighborhood Assoc. to address storm water run-off.	These suggestions and references are being considered.	*Correspondence (5-17 November 2007)*
Citizen/Shoreline Permitting and Contractor	4.6, 3.6	Shoreline Regulation	Storm Water	City needs to consider impact of surface runoff from upland development on water quality and fish life.	Impacts from Surface Water are addressed through the City's Surface Water Master Plan, as well as through implementation of the NPDES Phase II Municipal Stormwater permit requirements. Thejurisdiction of the Shoreline Master Program is limited to areas within 200 feet of the ordinary high water mark and associated wetlands.	*Official Correspondence and Houghton Community Council Meeting and letter dated May 1, 2008*
Citizens/ Property Owners	4.8	Shoreline Master Program Process		Appreciated the City of Kirkland's recent shoreline presentation, and stated that they will attempt to involve other homeowners in future meetings.	The City continues to provide notice of public meetings and encourages the active involvement of citizens in this process.	*Correspondence (25 September 2007)*
Citizens/ Property Owners	4.8	Shoreline Master Program Process	Growth	Expressed concern that Kirkland was changing "rapidly".		*Correspondence (25 September 2007)*
Citizens/ Property Owners	4.8	Shoreline Redevelopment/ Restoration	Storm Water	Encouraged use of sand filters (e.g., treat run-off).	Proposed water quality regulations require use of low-impact development practices within the shoreline.	*Kirkland Public Forum: Updating Shoreline Master Program (September 2006)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	Warned of the dangers inherit in incorporating the Army Corps' of Engineers design standards into a critical area ordinance (which could cause a backlash from affected property owners).	The respondent's suggestions would be forwarded to the City of Kirkland Deputy Director of Planning and Community Dev.	*Official Correspondence (7-10 September 2007)*

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Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation		Lauded the efforts of the Senior Planner within whom he was communicating, stating that the Planner was effective in listening to the concerns of private property owners, and was not unduly burdening them with federal and state shoreline and ecological requirements.	Although the WA State Dept. of Ecology's guidelines for local Shoreline Master Plan updates are ambiguous, they do provide considerable flexibility for how local governments respond	*Official Correspondence (7-10 September 2007)*
Local Gov. (Kirkland)	4.5	Shoreline Regulation		Person commented on specific language in Sections 4.2.1 and 4.2.2 regarding land uses and the presence of condominium piers. Also suggested changes to Figure 8.	The specific comments and suggestions had been implemented.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	2.6; 4.4	Shoreline Redevelopment/ Restoration	Shoreline Vegetation	Expressed concern over the removal of trees from Heritage Park.	Referred to *City of Kirkland Natural Resource Management Plan* . Document identifies criteria for retaining trees.	Report on the Tour of Innovative Shoreline Design (30 September 2006) ; Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.4, 5.0	Shoreline Redevelopment/ Restoration	Storm Water	Alarmed about recent street flooding that had resulted from breakdowns within the municipal water pipe system. Concern about water quality.		Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006); Planning Commission Meeting (March 13, 2008)
Citizen	2.4; 3.1; 3.3; 3.6; 4.4;	Shoreline Redevelopment/ Restoration	Storm Water	Concerned over the amount of storm water run-off that empties into Lake Washington from non-point pollution sources.	Storm water being addressed in Section 3.3.2 (*Storm water Utilities*) and the *Surface Water Master Plan* .	Report on the Tour of Innovative Shoreline Design (30 September 2006) ; Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.4	Shoreline Redevelopment/ Restoration		Dismayed that on a recent public tour of de-armored shoreline homes, no examples from Kirkland were used, and was doubtful whether the examples that were used were applicable to Kirkland shoreline property owners.	Either completely removing or softening the portion of Kirkland's shoreline located along private property is unlikely to be accomplished on a grand scale. As a result, the Shoreline Master Plan is designed to be site-specific.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)

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Citizen	3.3; 4.4	Shoreline Regulation	Public access	How is public access being addressed in Shoreline Master Plan? Also, will city require public access through waterfront single-family properties?	City has no intention of requiring or promoting access through single-family neighborhoods. For more information of existing possible future public access sites, refer to Juanita Beach Park Master Plan.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.4	Shoreline Regulation	Boating practices	What are the established speed limits within Lake Washington?	King County only limits boating speeds within 100 yards of shoreline. Otherwise, a boat operator allowed to exercise judgment, but must be able to bring a "watercraft to a stop within the assured clear distance ahead."	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.4	Shoreline Regulation	Piers and Docks	What new regulations may be developed concerning docks?	City considering requiring consistency with state/federal regulations. Also, would likely allow some flexibility in enforcement.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	3.6	Shoreline Redevelopment/ Restoration		Asked whether Lake Washington's historic pre-development condition was considered in the recent Draft Shoreline Master Program Inventory?	Although historic conditions were considered, the present conditions constituted the baseline from which all potential impacts are assessed.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	3.3; 3.6	Shoreline Master Program Process		How do the shoreline inventories specifically related to shoreline habitat restoration and specie health, and what measures were being used to address this issue?	Inventories would serve as indicators for addressing habitat restoration and specie health, particularly as a result of piers, bulkheads, and storm water discharges. City departments will coordinate to address these issues.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	3.6	Shoreline Master Program Process	Best Available Science	Questioned the accuracy and best available science regarding statements in the report.	Some statements based on conjecture removed from the report. Other speculative statements remain since they are supported by best available science.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	3.3; 3.6	Shoreline Master Program Process		What positive changes had occurred since the adoption of the original Shoreline Master Plan? What about future improvements to shoreline ecological conditions?	Text has been added to the document that addresses past positive shoreline changes. Specifically, refer to sections 2.1 and 3.3.1. Future improvements will be addressed in the future Restoration Plan.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Local Gov. (Kirkland)	4.5	Shoreline Regulation		Commented on specific language in Sections 4.2.1 and 4.2.2 regarding land uses and the presence of condominium piers. Also suggested changes to Figure 8.	The specific comments and suggestions had been implemented.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)

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Citizen/NGO (SPOCA)	3.3	Shoreline Redevelopment/ Restoration	Sedimentation	How is the Shoreline Master Plan addressing sediment flow into Juanita Creek and Juanita Bay?	City has added a section to the Shoreline Master Plan that addresses Juanita Creek: Section 4.2.4.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen/NGO (SPOCA)	3.3	Shoreline Redevelopment/ Restoration		What specific opportunities exist for improving the shoreline's ecological functions?	Potential for replacing solid decking with grating on boardwalk over Forbes Creek; in Denny Creek, Also, further discussion of ecological improvements on residential properties. Refer to sections 3.11; 4.3.4; and 4.4.4.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.2	Species/Habitat		Expressed concern over maintaining wildlife habitat (especially for birds) in Juanita Bay.	Shoreline wildlife habitat was being addressed in the *Final Shoreline Analysis Report*	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	4.1	Shoreline Regulation	Piers and Docks	Asked that inhabitants of Lake Washington (e.g. their dwelling is a boat) be allowed to temporarily use boat moorage covers.	Proposed regulations would not permit the use of a boat as a dwelling unit.	*Correspondence (8 February 1999)*
Citizen	4.3	Shoreline Regulation		Referenced 'Figure 7a' concerning boatlifts	Two additional boatlifts were included in Figure 7a.	Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Citizen	3.2; 3.3; 4.3	Species/Habitat	Invasive Species	Inquired about invasive species along the shoreline. For example, how severe are invasive species?	Referred to the Final Shoreline Analysis Report section 3.10.3 and 4.2.5, where the subject of invasive species is discussed in-depth. Invasive species include water lily and milfoil. However, unsure as to the full extent to which invasive species impact shoreline 9but will be addressed in future reports).	Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006); Public Comments provided on the *Draft Shoreline Master Program Inventory* and *Characterization for the City of Kirkland's Lake Washington Shoreline* (August 2006)
Local Gov. (Kirkland)	3.8	Shoreline Master Program Process	Public participation	How do we communicate this process to more people, in order to get them involved?	Staff has developed a Public Participation Plan for this project. Staff is continuing to conduct public outreach through various outlets, including list-servs, e-mail, web-sites, notice boards, newspapers, and the City's cable station.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.6	Shoreline Master Program Process		Since Port Townsend's Shoreline Master Plan close to completion, has it been analyzed as a comparison?	State Dept. of Ecology official answered: Not yet, but it may inform Kirkland's future process.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.7	Shoreline Master Program Process	Public participation	Will the city use advisory committees to help inform the Shoreline Master Program process?	City of Kirkland Senior Planner responded: Because of the restrictive timeline, advisory committees are not feasible. Instead, public meetings will be used as substitutes.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.1	Shoreline Permitting		Although most property owners would be open to changes that improve Lake Washington, felt that the permitting process needs to be more conducive toward accommodating residents/property owners.		*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*

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Citizen	3.6	Shoreline Research	Storm Water	Are there any studies on storm water runoff (within the Watershed Co. report)?	A representative from the Watershed Co. answered: Storm water runoff is addressed in their report, and will continue to be addressed. However, most storm water-related issues are outside of the Shoreline Master Program's jurisdiction.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.1	Shoreline Redevelopment/ Restoration/ Regulation	Shoreline Stabilization	Property owners should be able to push shoreline portion of their property farther into the Lake as an incentive to remove bulkheads.	To enable shoreline property owners to implement soft shoreline stabilization approaches in Kirkland, the proposed regulations allow placement of fill material for purposes of habitat enhancement waterward of the ordinary high water mark. This will allow property owners who are not able to remove their hard structural stabilization to improve shoreline function, and increases design flexibility for those who can remove their hard structural stabilization.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen/NGO (SPOCA)	3.3	Shoreline Regulation	Shoreline Stabilization	Felt that the city had made many improvements to the shoreline as a result of the Shoreline Management Act. These included a low number of bulkheads (relative to its urban setting) and a high amount of access.	Draft regulations continue practice of requiring public access. Regulations also address construction of new bulkheads, limiting those where possible.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.2; 4.6	Species/Habitat		In favor of improving environment for both wildlife and humans. However, emphasis may vary (i.e. favor human activities if sustainable; encourage environmental stewardship).		*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
NGO	3.4	Shoreline Master Program Process		Stated that central goal of the tour was for neighbors to learn from each other.		*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.5	Shoreline Regulation	Incentives	Inquired whether any incentive existed for restoring commercial/mixed uses along the shoreline.	City of Kirkland Senior Planner responded: No incentives currently exist, but the idea is being explored.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.1	Shoreline Redevelopment/ Restoration	Incentives	City could streamline/mitigate permitting process for private property owners by creating local improvement districts and partnering with private owners to Redevelopment large swath of shoreline at once.		*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	2.3; 3.1	Shoreline Pollution/Trash		Concerned over garbage dumped into the Lake by boaters.	Unfortunately, because boaters may come from outside Kirkland, it is a regional issue. However, an effort is needed to educate boaters on this issue.	*Report on the Tour of Innovative Shoreline Design (30 September 2006) ; Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	3.1	Shoreline Pollution/Trash		Raccoons using nearby storm water pipe		*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen/NGO (SPOCA)	3.3	Shoreline Recreation		Valued the water quality of and access to Lake Washington. Also felt that the City offered particularly good shoreline access.	The update to the SMP contains regulations addressing public access and water quality.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*

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Citizen	3.1	Shoreline Regulation		What constitutes the near shore zone?	Generally, the near shore comprises the first 30' of shoreline at a depth of 9'. However, recent research may change these benchmarks.	*Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)*
Citizen	2.13	Shoreline Master Program Process	Public participation	The city should engage the press, in order to highlight positive changes that have occurred with Kirkland's shoreline.	The City has been sending notification to the local newspapers of public events associated with the SMP update process. There have been several special stories ppearing in the Kirkland Reporter about the SMP.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.14	Shoreline Master Program Process		(Regarding the tour component) will the bus tour be videotaped?	City of Kirkland Senior Planner responded: The bus tour will be videotaped, and made available to the public.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.15	Shoreline Master Program Process		How can one give further input after the meeting?	Any additional comments should be made by e-mail, mail, or writing.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.11; 2.12	Shoreline Redevelopment/ Restoration		City should be as site-specific as possible when addressing shoreline conditions on private property.		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Local Gov. (Kirkland)	2.9	Shoreline Regulation		How can the permit process be streamlined for applicants that use the correct approach?	Opportunities exist, but it requires coordination.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.10	Shoreline Regulation	Consistency	Do all Lake Washington cities require the same criteria for permits?	Jurisdictions do have the same permit criteria, and there is an effort to bring these criteria more closely in-line.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen/ Property Owner	1.1	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	How much did it cost to Redevelopment and de-armor a double lot located along the shoreline?	The cost was $ 200,000-250,000. Meeting attendees felt that this was "a very good deal."	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.2	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	How well did a double-lot along the shoreline that had recently been de-armored survive storm/erosion damage?	Property owner responded: So far no evidence of any weather-related damage.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen/Property Owner	1.3	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	Regarding a recently de-armored shoreline property, would the owners have done anything differently (concerning the de-armoring process)?	Only change would have been to orient the fireplace differently	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Federal Gov. (NOAA)	1.4	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	Would the owners of a recently de-armored shoreline property have preferred a contiguous beach (than what was built)?	Initially the owners would have preferred a contiguous beach, but this would have required sacrificing trees.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen/NGO (SPOCA)	1.5	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	Regarding a recently de-armored shoreline property, how are the environmental benefits of de-armoring a shoreline property quantified?	Tour coordinators answered: The benefits are realized through the increase or restoration of endangered species habitat.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.6	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	How does one go about planning for shoreline design?	One must decide upfront what the needs and priorities are, and clearly articulate goals.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.6	Shoreline Master Program Process	Piers and Docks	How does one avoid being overwhelmed by the extant of decisions required for planning Kirkland's shoreline?	One must decide upfront what the needs and priorities are, and clearly articulate goals.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.7	Shoreline Redevelopment/ Restoration	Piers and Docks	Should docks be constructed of aluminum (in order to minimize impact)?	Not per se. Rather how the material will impact species habitat should be main concern.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*

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Citizen	1.7	Shoreline Redevelopment/ Restoration		When importing new soils (as part of shoreline restoration), do the supporting geotextile fabrics prevent sinkholes? Are they muskrat proof?	Usually fabrics are, but they may require an additional metal mesh	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.8	Shoreline Redevelopment/ Restoration		Does a property owner need permits for property redevelopments below the ordinary high water mark?	Yes, an owner would need to obtain a permit.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.9	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	Should property owners' use large boulders/stones when redeveloping shoreline property? If so, do they need to obtain a permit for this?	Property owners should always consult with the city first (as some boulder/stones may not be beneficial). Permits would be required.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen/NGO (SPOCA)	1.10	Shoreline Redevelopment/ Restoration		(Referring to the tour's overall comments) Why is there so much emphasis on salmon, rather than other species?	The salmon are officially listed as threatened; as such, governments are required to protect them.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	1.11	Species/Habitat	Invasive Species	Do invasive predators (e.g. bass) prefer non-native plant species?	Yes, non-native predators do associate with non-native plants.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.1	Shoreline Research		Regarding shoreline restoration efforts, how much study had gone into offshore areas (of Lake Washington), and its topography, and water depth (as well as the best available science to account for these factors)?	Restoration will likely be constrained by what can be done, and will be informed by other local efforts.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.2	Shoreline Master Program Process		Asked to have the Shoreline Master Program's timeline clarified?	The City is farther along in the process than other Lake Washington jurisdictions.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizens	2.3; 2.4	Species/Habitat	Invasive Species	Milfoil is an issue--there was too much of it and it smelled foul.	Best way to remove it is by pulling it from the roots. Moreover, milfoil removal is addressed in a recent Dept. of Fish and Wildlife publication.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.5	Species/Habitat		A comment was made about the balance between salmon (a native species) and bass and sculpin (non-native)		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.6	Shoreline Regulation	Incentives	Reduce street setbacks for new homes, so as to keep homes farther away from the shoreline.		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.6	Shoreline Regulation	Boating practices	Could moorage rates be increased?		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.6	Shoreline Redevelopment/ Restoration	Shoreline Vegetation	Could native trees be planted that support eagles and osprey?		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.7	Shoreline Recreation	Boating practices	Could boaters could be directed toward the free pump station (at Yarrow Bay)?		*Report on the Tour of Innovative Shoreline Design (30 September 2006)*
Citizen	2.8	Shoreline Redevelopment/ Restoration	Shoreline Stabilization	How can the shoreline be softened (i.e. remove bulkheads)--particularly since most of the shoreline is privately owned?	Cost-effective opportunities exist, such as through official certification courses, which in turn can be used for community outreach/education.	*Report on the Tour of Innovative Shoreline Design (30 September 2006)*

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Shoreline Permit Coordinator and Contractor	4.6	Shoreline Permitting		There are regulations in place to address impacts through both the state and federal processes. It is important that local governments are careful not to impose overly rigid restrictions that force property owners to pursue Shoreline Variances or Conditional Use Permits. Local communities should retain their autonomy while cooperating with state and federal agencies in order to make decisions that best serve their own citizens and do not weaken their responsibility to local interests.		*Official correspondence and Houghton Community Council Meeting (February 25, 2008 and May 1, 2008)*
Citizen/Shoreline Permit Coordinator and Contractor	4.6, 5.1	Shoreline Permitting		Need to ensure that SMP regulations for overwater structures are flexible, practical and reasonable to enable property owners to meet their needs while exercising responsible stewardship toward the valuable resources of our region.		*Official correspondence and Houghton Community Council Meeting (February 25, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Shoreline Stabilization	Carefully consider regulations addressing bulkheads. Restoring natural shorelines will not work in all locations and in many cases depending on the water depth at the face of the existing bulkhead a property owner will need to shift their shoreline landward quite a bit, which can impact setback and the amount of impervious area.	Encourage to attend meetings and review draft regulations.	*Official correspondence and Houghton Community Council Meeting (February 25, 2008)*
Citizen/NGO (SPOCA)	3.6, 5.1	Shoreline Master Program Process	Public participation	Need for public participation. Make property owners understand implications of changes early on in process.	Staff has developed a Public Participation Plan for this project. Staff is continuing to conduct public outreach through various outlets, including list-servs, e-mail, web-sites, notice boards, newspapers, and the City's cable station.	*Houghton Community Council Meeting (February 25, 2008)*
Citizen	3.6	Shoreline Regulation		Kirkland, as largest property owner along shoreline, has biggest impact and needs to consider how regulations would impact their activities as well as those of private property owners.		*Houghton Community Council Meeting (February 25, 2008)*
Citizen/NGO (SPOCA)	3.6, 5.1	Shoreline Regulation		Need for clarity and consistency in shoreline regulations.		*Houghton Community Council Meeting (February 25, 2008)*
Citizen	4.9	Shoreline Recreation		Would like to see more big toys, and other recreational facilities available (e.g. waterslides, diving boards, big inflatable)	Comment forwarded to Parks and Community Services Dept.	*Web comment (March 14, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	Kirkland needs to revise regulations to allow for greater height above Ordinary High Water in order to be consistent with state and federal requirements for pier height above the water		*Planning Commission Meeting (March 13, 2008)*
Citizen	5	Shoreline Goals and Policies		Include language protecting rights of private property owners.	See Goal SMP-5	*Planning Commission Meeting (March 13, 2008)*
Citizen	5	Shoreline Regulation	Public access	Concerned about public access and pathways along the shoreline. Want to ensure that these are not required for single family lots.	Proposed regulations do not require dedication and development of public access for detached dwelling units.	*Planning Commission Meeting (March 13, 2008)*
Citizen	5	Shoreline Regulation	Piers and Docks	Concerned that minimum width for docks as required by RGP-3 is too narrow		*Planning Commission Meeting (March 13, 2008)*
Citizen	5	Shoreline Regulation	Shoreline Stabilization	Concerned that removal of existing bulkheads may adversely impact neighboring properties.	Proposed regulations allow bulkheads to tied into exising bulkheads on other side to minimize impacts.	*Planning Commission Meeting (March 13, 2008)*
Citizen	5	Shoreline Regulation	Shoreline Stabilization	Concerned that removal of existing bulkheads will affect lot area.	Proposed regulations permit the applicant to identify the previous location of ordinary high water mark and use the pre-restoration location for purposes of calculating lot coverage and setbacks.	*Planning Commission Meeting (March 13, 2008)*

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Citizen	3.3	Shoreline Goals and Policies	Storm Water	Linking the SMP to the implementation of the City's Surface Water Master Plan provides an opportunity for a systematic comprehensive approach to deal with the pollution impacts of storm water on Lake Washington.	Regulations addressing water quality are contained in the updated SMP. City-wide impacts from Surface Water are addressed through the City's Surface Water Master Plan, as well as through implementation of the NPDES Phase II Municipal Stormwater permit requirements. Thejurisdiction of the Shoreline Master Program is limited to areas within 200 feet of the ordinary high water mark and associated wetlands.	*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Vegetation	Getting to a position depicted in the shoreline vegetation goal - stumps, root wads, overhanging vegetation, beaches - is not going to happen. A realistic and implementable approach is one that should be identified in this goal.		*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Invasive Species	Change policies to reflect the reality of safe and effective use of herbicides to control invasive weeds.	Proposed regulations would generally prohibit use of herbicides, except where other alternatives are not successful.	*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Stabilization	Have not experienced scouring of shoreline area as a result of bulkhead. Policies for retrofitting should incorporate several factors: 1) reasons for their installation, unintended consequences, cost benefit analysis. Need to address practicality of bulkhead retrofitting. Bulkhead removal when meeting specific and well-founded criteria could best be attained when redevelopment occurs with property consolidation and structure knockdowns.		*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Stabilization	Appears to be conflict between desire to eliminate bulkheads and provide overhanging vegetation, which is most effectively planted on a bulkhead.		*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Boating practices	Many of the impacts depicted in this policy are either illegal or prohibited.		*Letter (March 24, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Vegetation	Policies addressing shoreline vegetation are not feasible or practicable. Shoreline vegetation will not provide shading on the water because of the direction of the sun. Planting of vegetation would not last due to impact of winter waves and boat wakes. Wildlife will not likely inhabit shoreline because of urban setting of Kirkland, which has human and pet activity.	Section III of memorandum for May 8, 2008 Planning Commission meeting	*Letter (April 10 2008)*
Citizen	3.3	Shoreline Goals and Policies	Best Available Science	Subjective conclusions appear in a number of policies. Scientific basis for policy recommendations should be referenced so that the Planning Commission, City Council, and the public know if personal viewpoints or scientific basis drive the policies.	Revisions to policies now contain references to scientific studies.	*Letter (April 10 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Stabilization	Concern about expectations for shoreline restoration activities. Public should be made ware of the exact description of restoration projects so as to ensure understanding and acceptance of these policies before adoption.	Section III of memorandum for May 8, 2008 Planning Commission meeting	*Letter (April 10 2008)*
Citizen	3.3	Shoreline Goals and Policies	Invasive Species	Concern about policies addressing control of aquatic noxious weeds. Permitted and controlled use of herbicides has been the only effective method with no adverse environmental impacts as document by soil samples and laboratory tests. Clear and cooler water has resulted and schools of native fish have returned.	Proposed regulations would still permit use of herbicides if other removal techniques are not sucessful.	*Letter (April 10 2008)*

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Citizen	3.3	Shoreline Goals and Policies		When comparisons are made with other cities, all jurisdictions on Lake Washington should be included for comparison.	Jurisdictions are in different stages of their SMP update process and some have addressed SMP issues in their CAO updates. Staff will try to incorporate as many other pertinent examples as it can.	*Letter (April 10 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Stabilization	Examples of bioengineered shoreline stabilization and restoration provided in response to comments in Attachment 16, Enclosure 1 of the May 8, 2008 Planning Commission package are not representative of Kirkland's shoreline. Still believes that removal of bulkheads is not a viable option.		*Letter (May 8, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Shoreline Vegetation	Geometry of Kirkland's shoreline is such that vegetation does not provide shading.	Section III of memorandum for May 8, 2008 Planning Commission meeting	*Letter (May 8, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Invasive Species	The impacts of harvesting and cutting milfoil should include that of fragments re-growing and spreading, negating the intended control. Herbicide use has proven to be effectively and safe. Example: 10-year program in Portage Bay which has utilized all known methods of invasive weed control and have found that the use of herbicides under a DOE permit to be the only effective method.	Staff concurs that mechanical means of removal can have impacts and has therefore limited removal of aquatic vegetation in the proposed regulations. Proposed regulations would still permit use of herbicides if other removal techniques are not sucessful.	*Letter (May 8, 2008)*
Citizen	3.3	Shoreline Master Program Process	Public Involvement	Public process has not been well attended. Policies will set forth extensive expenditures of public and private money in the coming years as implementation occurs. Urge that city taxpayers and city park users have input on whether they would support the level of expenditures necessary or the changes to City parks contemplated. Urge the public event to provide complete information on the transformation of the shoreline that the policies will dictate, the cost associated with that, and with a depiction of the real environmental benefits. Information should also be provided about the implementation status of the City's Surface Water Master Plan, its estimated costs, and the resulting environmental benefits.	Staff has developed a Public Participation Plan for this project. Staff is continuing to conduct public outreach through various outlets, including list-servs, e-mail, web-sites, notice boards, newspapers, and the City's cable station.	*Letter (May 8, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	Advocates that the City not adopt the Regional General Permit 3 guidelines into our regulations for piers and docks. Advocates for a separate process for redevelopment of existing structures to be adopted which allows property owners making improvements without complying with the RGP-3 guidelines. Include a process to evaluate the properties that have existing structures being replaced or modified differently than those who have undeveloped shorelines. Encouraging property owners to decrease the size or modify the configuration of their current structure by proposing a more environmentally pier or bulkhead, even if it does not align with newly proposed structures, will benefit everyone and the environment. Having a single standard and process for everyone will deter many property owners from even considering changes if there are no incentives to respect and recognize their good faith efforts.		*Letter (May 1, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Best Available Science	Encourage policy makers to research and review the White Papers and scientific studies used to regulate and implement rules and guidelines for piers and bulkheads.		*Letter (may 1, 2008)*

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Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Shoreline Stabilization	It is vital that local councils and commissions review all available information on the push to have waterfront property owners remove and/or replace/repair existing bulkheads with bioengineered solutions. Restoring natural shorelines will not work in all locations and in many cases depending on the water depth at the face of the existing bulkhead a property owner will need to shift their shoreline landward quite a bit. Changes in the location of the Ordinary High Water Mark can impact both the shoreline setback and amount of impervious surface for the parcel and push the upland development into a nonconforming status impacting existing and future development for property owners.	Staff concurs that removal of bulkheads is not a viable solution in all circumstances. The individual site characteristics need to be evaluated in determining the appropriat method of shoreline stabilization.	*Letter (May 1, 2008)*
Citizen	4.3	Species/Habitat	Invasive Species	Continuing concerns with Eurasian Milfoil. Questions whether there are any plans for City to do anything about this.		*On-line comment (May 21, 2008)*
Citizen	5.3		Dredging	Requests City dredge Juanita Bay because it is too shallow.	The City has CIP projects to address upstream erosion and sediment along Juanita Creek that is going into Juanita Bay. The Parks Department is addressing water flow at Juanita Beach Park with the City's park master plan. No current plans to dredge the bay.	*On-line comment (May 21, 2008)*
Citizen	5.4	Shoreline Regulation	Shoreline Stabilization	Should include provisions for property owners to protect their properties from storm damage and/or erosion, as ruled by federal courts. Property owners should be allowed to reduce the wave action in order to protect their property. Draft regulations would be expensive, an intrusion on property rights, more than what is necessary to comply with the law and will not achieve the goal of "no net loss." Proposal is a piecemeal approach and the downtown area is a large obstacle to restoration.		*E-mail (May 23, 2008)*
Citizen	5.4	Shoreline Regulation	Piers and Docks	Inconcsistencies between public and private applications in what fish need to be protected and how to do it. Conveyed concerns with previous permitting for dock extension (time, cost, requirements, effectiveness of requirements, etc.)		*E-mail (May 23, 2008)*
Citizen	5.4	Shoreline Redevelopment/ Restoration	Shoreline Vegetation	Restoring vegetation on residential shorelines should not be a requirement and would be inconsistent with residential land use.		*E-mail (May 23, 2008)*
Citizen	5.4	Shoreline Regulation	Public Access	Suggest limiting public access in order to protect shorelines. If access is to be regulated by Kirkland, it should be done to protect the interest of the citizens who live in Kirkland. Public use of the shoreline should require mitigation measures on upland development and multifamily units. Fees should be required for non-residents to help pay for the impacts of people who use regional parks and shoreline facilities.	Proposed regulations allow modification to public access standards if it would impact critical areas. New standards also contain a setback from the ordinary high water mark to provide additional separation from this improvement and the shoreline edge.	*E-mail (May 23, 2008)*
Citizen	5.5	Shoreline Regulation		Recognize the recreational aspect of the lake. Regulations must provide for the needs of homeowners to allow reasonable installation and repair of bulkheads, docks, and covered moorages without excessive costs and difficulty. Simplify permitting process.		*E-mail (May 23, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation		Implementing the RGP-3 Guidelines as requirements in a SMP would damage the progress made toward decreasing the size of new and replacement piers and the planting of native vegetation. The RGP "requirements" have been used merely as flexible guidelines by the Corps and the federal services.		*E-mail (June 20, 2008)*

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Shoreline Permit Coordinator and Contractor	4.6	Shoreline Master Program Process		All information on the SMP update process should be easily accessible and readable on all local websites. Spell things out clearly on your government website and do not busy it up with needless reports that people will not read. Place the information in a clear, easy-to-read, honest and understandable format so people know what is going on. Encourage involvement from waterfront property owners and others within the 200 foot shoreline areas.	Staff has developed a Public Participation Plan for this project. Staff is continuing to conduct public outreach through various outlets, including list-servs, e-mail, web-sites, notice boards, newspapers, and the City's cable station.	*E-mail (July 2, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	Requests that City rejects adopting the Corps of Engineers RGP-3 guidelines in part or whole into the SMP and allows less restrictive but reasonable and responsible standards for new development and redevelopment of piers, dock and bulkheads. If local governments yield to pressure from DOE to adopt the RGP-3 guidelines as development standards, it may result in people not replacing older, larger piers with smaller and better environmental structures.		*E-mail (July 2, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	This is a follow up of ongoing issues regarding the SMP Update process. DOE and Biological Consultants are clearly presenting or at least strongly impressing upon local planning staffs, councils, commissions and meeting attendees that the restrictive RGP-3 "guidelines" as "requirements" to achieve a "no net loss of ecological functions" is a misleading characterization and unattainable goal in the case of new piers and some redevelopment projects. If believed and embraced, this misleading characterization and unattainable goal in the case of new piers and some redevelopment projects may lead local governments on Lakes Washington and Sammamish to place overly restrictive, "everyone fit inside the box" type of regulations or standards in their updated SMP. Even if this position were to apply only to new structures it is problematic. Local governments who adopt the Corps RGP-3 guidelines or any overly restrictive development standards for piers under their SMP will complicate their review process, refer more projects for shoreline variances to DOE that will likely be disapproved, face unnecessary criticism from residents who are impacted by the changes, and cause an undue burden and greatly restrict or take		*E-mail (July 31, 2008)*
Shoreline Permit Coordinator and Contractor	4.6			completed by UW Keystone Project team. Challenges many of the conclusions drawn by the team as a result of their interviews with permitting agencies, who don't have the level of "working on the street" experience as those heavily involved with the system day in and day out at all levels. The report and the information relayed at the symposium reflect a lack of knowledge and real life experience that a marine permitting agency or contractor has from years of working within the system.		*E-mail (August 7, 2008)*
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Private Property Owner Rights	Forwarded copy of letter concerning shoreline propery owners experiences in Bainbridge Island. States that one of the main goals should be to assure that the SMP Updates protect individual property rights (a priority of the legislature) so no property owner has a legal basis to challenge and win subsequently overturning all local government SMP's on which you have worked so diligently.		*Letter (August 22, 2008)*

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Citizen	4.3	Species/Habitat	Invasive Species	Eurasian Milfoil continues to be a problem in Yarrow Bay. When the lake lowers and the Milfoil is cut by power boats, it floats to the surface and is blown to shore by the prevailing winds. This collects on the shore and can promote the growth of alge and other problems including smell as it rots. Is there any plan by the City to try and do anything about this? We are told that communities in the other finger bays have been able to obtain grants to try and rid or reduce the growth of Milfoil. This subject deserves the attention of studies and activities within the Master Program.		*On-Line Comment (May 21, 2008)*
Shoreline Permit Coordinator and Contractor	4.6			Asks to be notified of when future meetings about SMP development standards are going to be held		*E-mail (September 3, 2008)*
Citizen	5.4			Expresses concern about the vague terms and expressions being used in the SMP, like "desire", should seek", and "should encourage". Questions whether waterfront parks provide environmental protection as stated in SMP 1.1. Says that SMP 5, which states "ensure property owner rights are respected", should instead say "ensure property owner rights are protected." The language in SMP 1.3 should be strengthened to ensure that docks serving private property remain. The SMP as presented is invasive of property rights, and assumes that public interest is greater than private interest, which is probably constitutionally wrong.		*E-mail (September 8, 2008)*
Shoreline Permit Coordinator and Contractor	4.6			Forwards address of Bainbridge Shoreline Homeowners website		*E-mail (September 8, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Cost Benefit	Cost and benefit needs to be studied. Implementation of goals and policies will be costly to the pubic and private. The City, as largest shoreline property owner, must also finance projects to meet the new regulations even though facing deficits. Shoreline property values would be reduced when purchasers take into account removal of bulkhead, lawn removal and shoreline landscaping costs.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Public access	Shoreline landscaping and removal of lawn will alter access and use of parks.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Regulation	Shoreline Stabilization	Shoreline in Market Street Neighborhood has shallow lots and exposure to wind and boat wake that make removal of bulkhead not practical. Shoreline vegetation will not provide shade and will reduce the recreational use of lots. Shoreline erosion is a major concern, including for the City's sewer interceptors. The City's examples of shoreline restoration shown at an earlier open house were in other cities and do not reflect the restricted conditions along Kirkland' s shoreline.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Pollution/Trash	Lake Contamination	Stopping contamination of the lake from increased storm runoff is as significant as bulkhead removal for improved shoreline habitat and should be addressed. Shoreline property owners are unfairly targeted while upland sources of pollution are not being addressed.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Goals and Policies	Consistency	City's goals and policies do not reflect State requirement to protect singe family homes from damage and lose due to shoreline erosion.		*Letter (September 15, 2008)*

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Citizen	3.3	Shoreline Regulation	Shoreline Stabilization	Regulation requiring removal of bulkhead and re-landscaping shoreline setback back will cause significant financial burden and change to configuration and use of shoreline yard.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Regulation	Invasive Species	Herbicides have been demonstrated to be effective, but would be prohibited under the proposed policies. Washington Toxic Coalition literature against herbicides is misleading. Harvesting milfoil caused increased growth of milfoil.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Regulation	Environmental Designations	Conservancy Environment and Natural Environment apply to Kirkland's urban shoreline.		*Letter (September 15, 2008)*
Citizen	3.3	Shoreline Master Program Process	Public Participation	Shoreline property owners have not been well represented in the SMP process. A workshop should be provided for them along with more time to speak at the public meetings.		*Letter (September 15, 2008)*
Citizen	5.6		Dredging	Juanita Bay is less than 10 feet deep now allowing sunlight to penetrate to the bottom of the bay and stimulating growth of aquatic plants and noxious weeds. Juanita Bay is turning into a stagnant fish and wildlife zone.What are the plans to remove the sand and gravel and restore water flow and depth for the bay? What will be done to stop erosion coming from development in King County?	The City has CIP projects to address upstream erosion and sediment along Juanita Creek that is going into Juanita Bay. The Parks Department is addressing water flow at Juanita Beach Park with the City's park master plan. No current plans to dredge the bay.	*Email (September 18, 2008)*
Citizen	5.7	Shoreline Regulations	Setbacks and Shoreline Stablization	New stringent restrictions for bulkhead removal and greater shoreline setbacks are unfair and would be a taking. Many lots in Kirkland have shallow depth and the additional shoreline setback requirement would severely diminish the value of those properties.	City in early discussion on bulkhead removal and shoreline setback regulations. Will consider lot depth when drafting setback regulation. Will consider the high cost of removing bulkheads and in some cases the lack of feasiblity to remove bulkheads when drafting the shoreline stabiization regulations. Likley that a high threshold for bulkhead removable will be in the regulations, such as for new development or major redevepment.	
Citizen	5.8	Shoreline Regulations	Shoreline Stablization	Regulations that require removal of bulkheads is a taking and not respectful of property rights. Citizen poses several questions about bulkheads and shoreline restoration..		
Citizen	5.9	Shoreline policies and regulations	Street Trees and Views	Street trees along the shoreline should be limiited in canopy size and height to maintain views of the lake. Vegetation along the shoreline should be limited to protect property values which also maintain tax revenue to the City.	Proposed regulations would limit size of street trees to maintain public views. Private views are not protected, except in very limiited siutations.	
Citizen	6.1	Shoreline Regulations	Shoreline Stablization	Concerned about potential requirement to modify bulkhead with other permits.		
Citizen	5.4	Shoreline Update	Process	Question why we must update SMP. Thinks that we already meet DOE Guideliness		*Emails (Oct 13 and Nov 4, 2008)*

Neighborhood meetings next Monday and Wednesday

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From: Daved [Daved@waterfrontconstruction.com]
Sent: Friday, June 20, 2008 11:47 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; rgrumbach@ci.medina.wa.us; Matt.torpey@mercergov.org; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us
Cc: Eride@msn.com; donovan@donovantracy.com
Subject: SHORELINE MASTER PROGRAM UPDATE CONCERNS AND MISINFORMATION
Attachments: RGP 3 Final Text _6-13-05_.pdf; SMP Update Ltr.doc

Dear Current and/or Future SMP Update Point of Contact,

I am contacting you regarding your current or future Shoreline Master Program update. I have attended several local meetings thus far including King County, Houghton, Kirkland, Sammamish, Renton, Seattle, and Lake Forest Park and there are troubling trends surfacing. I am concerned that those property owners most impacted by the sweeping changes the Department of Ecology (DOE) is trying to invoke on local jurisdictions, especially along the shorelines of Lakes Washington and Sammamish, are not being informed of how their lives and properties will be affected. In reviewing a couple of the SMP's that are well along their way to approval, it appears that there has been no effort to protect waterfront property owners who would like new piers or to redevelop existing piers with a new configuration that will not comply with the proposed development standards. It appears that DOE and their biological consulting firms (hired by local governments) are placing additional restrictions on property owners along Lakes Washington and Sammamish due to the large amount of development along these highly urbanized lakes. They are presenting the Regional General Permit 3 (RGP3) guidelines from the Corps of Engineers designed to arrive at a "may affect, not likely to adversely affect" listed species and or critical habitat to also arrive at a "no net loss of ecological functions" determination. The RGP3 "guidelines" are developed to evaluate impacts on species and critical habitat and not "requirements" but local governments appear to be using them to develop their SMP's based on information from DOE. Even though the RGP-3 text itself uses the term "requirements" for the standards listed in the document, those at the agency and anyone involved closely with the federal permit process understand that these have been merely used as flexible guidelines or recommendations by the Corps and the federal services. The flexibility exercised by the Corps has resulted in a cooperative effort between agency and applicant to design new and replacement piers in a more fish friendly and environmentally responsible manner. Each project approved for redevelopment has resulted in a measurable improvement over previous conditions. It is trusted this is what local planning departments and state environmental agencies would like to see continue. These same "requirements", "guidelines" or "development standards" in a SMP would seriously damage the progress made in decreasing the size of new and replacement piers and the installation of native vegetation planting plans on Lake Washington and Lake Sammamish.

Attendance at public, council and commission meetings, especially by waterfront property owners, has been poor and there is limited "above and beyond" effort being made to reach out to these individual citizens that you are supposed to serve. If you were a waterfront property owner and your rights regarding shoreline protection and overwater structures were being restricted or taken away you would want to know that your community leaders went above and beyond "average" notification methods to reach you and make sure you were given an opportunity to respond. This is simply not being done.

It seems no permitting agents or marine contractors were consulted prior to

writing up the SMP's because there are several standards, for example in the Redmond SMP that cannot be met structurally. This means every project that does not meet these overly strict guidelines will need to apply for a shoreline variance to DOE because there is no alternative method for local approval. There is no consideration whatsoever taken into account for property owners who want to replace a large pier with a smaller more environmentally friendly pier if it exceeds the standards listed in the SMP. This is true for Lake Forest Park and Redmond thus far and in the past Bellevue adopted similar guidelines and placed them under their Critical Areas Ordinance. As soon as they are adopted as a part of their SMP, unless a procedure is established they will also need to be reviewed and approved by DOE. A disservice and injustice is taking place and your waterfront property owners are being targeted. You have the authority and responsibility to see this doesn't happen to your citizens. Something I have heard very little mention of at meetings or seen little to no mention of in text is the directive by our state legislature regarding the protection of private property rights.

Many planners and most council and commission members have never seen or reviewed the Corps of Engineers Regional General Permit 3 DOE is using as the baseline document for evaluating a "no net loss of ecological functions" determination. The RGP is only one of several processes used to permit projects in Lakes Washington and Sammamish. There are also Nationwide Permits, Letters of Permission, Individual Permits and Non-Complying RGP-3 Permits. Only a small percentage of projects are approved using the RGP-3 process but it is being presented by DOE as the only streamlined process and the only one arriving at a "no net loss of ecological functions" determination. This is simply not true and the Corps has been very flexible in evaluating and approving projects which well exceed the guidelines of the RGP-3 as needed and give a lot of consideration to the removal of existing structures being replaced with less impacting ones. In the case of WA Dept of Fish and Wildlife, they give property owners removing an existing structure a 1:1 credit as long as 100% grating is installed in the proposed structure. The RGP-3 came out in 2005 and I can provide copies of many projects with piers in excess of 480sqft and up to 1600sqft, with 8ft wide walkways and 10ft wide platforms with less than 50% open area grating approved since that time. Assuming DOE's position and standards on "no net loss" are true it could be argued that these projects would be viewed by any responsible regulator as "adversely affecting listed species and/or critical habitat" or a "net loss of ecological functions" and would not have been approved.

I have attached a copy of the RGP-3 and the latest update of a letter I have written for local planners, councils and commissions, many of whom have no idea regarding shoreline permitting at the local, state and federal levels of government. It is designed to better equip local governments to make a more informed decision regarding any changes to their SMP. It is written from a "person on the street" perspective since we work very closely with your citizens and understand the atmosphere on the waterfront. Please make this information available to your council and commission members and anyone else influencing changes in your SMP.

Thank you for your time as I know it is valuable. This is a very important issue so I hope you invest the time into giving it the attention it deserves. Once your Shoreline Master Program is changed we all understand how difficult it is to reverse it.

If you have any questions or would like to meet with me to review some recently approved projects please let me know. I will have more information and comments in the future as they become available and as time permits. This will include a recommended and separate process for redevelopment of existing structures which for the most part could become legally non-conforming if SMP development standards for piers and docks are drastically changed.

On behalf of waterfront property owners, marine permitting and construction companies, and as a private citizen of the State of Washington.

Respectfully,
Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

June 20, 2008

To: Local Government Elected and Appointed Leaders
Local Government Planning and Land Use Staff
Interested Citizens

While this letter was originally written to address the City of Kirkland's Shoreline Master Program (SMP) update required by the WA Department of Ecology and was originally presented to the Houghton Community Council on February 25, 2008, it is applicable to each and every waterfront community in the Puget Sound Region, especially those on Lakes Washington and Sammamish who are receiving additional scrutiny for meeting DOE requirements for their SMP Updates..

I am a Permit Coordinator with Waterfront Construction; a business started out of a garage in Kirkland by Paul Wilcox nearly 40 years ago and has since grown to be a highly experienced and preferred marine contractor and permitting agent for residential and commercial property owners living on Lake Washington and around the Puget Sound. Our company has a respected reputation for integrity and craftsmanship in constructing legal and fully permitted environmentally responsible projects for our clients. We are regarded as a strong proponent for waterfront property owners and the preservation of property rights, especially for those living along the beautiful shorelines of our state and region. We have also received calls from many local governments over the years to answer questions regarding permitting issues, construction techniques and Shoreline Master Programs. We work closely with local, state and federal agencies on hundreds of projects each year.

While respecting the efforts of local, state and federal agencies to protect and regulate impacts to natural resources, we are requesting careful consideration be placed on changes made to local SMPs as mandated by the Washington State Department of Ecology (DOE). Much of the drive behind these changes is based on Best Available Science (BAS) and not conclusive science through studies funded and directed by the various agencies responsible for regulating based on the results of the studies. In reviewing some of the documents regulatory agencies have used to address piers, bulkheads or other overwater and shoreline structures the studies and results are inconclusive and do not provide a clear determination of their impacts on water quality or fish life. For projects requiring a Biological Evaluation (BE) to address impacts to listed species and/or critical habitat, the same documents used by regulatory agencies to declare adverse impacts of piers on water, fish and habitat are also used by independent biological firms to discount the impact as insignificant and not having an adverse impact. Although the biological firms are hired by the property owner they evaluate and make their determination remaining faithful to their profession under the same guidelines used by regulatory agencies. If they are unable to make a favorable determination design changes are made prior to an application to local, state and federal agencies so we are taking proactive steps in submitting projects that are environmentally responsible. The white papers utilized to regulate overwater structures contain mixed information and the number one impact to water quality and fish life is not piers but surface runoff from upland development, most of which is associated with roads. There is so much controversial and inconclusive literature on the subject of piers and bulkheads that one cannot keep pace unless employed full time to review such information.

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I encourage each of you to research and review the White Papers and other scientific studies used to regulate and implement rules and guidelines for piers and bulkheads. I can provide excerpts from some of the these studies although the full text and origin may need to be provided by regulatory agencies such as Washington State Department of Fish and Wildlife (WDFW), DOE, U. S. Army Corps of Engineers (COE), U. S. Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS). There is a recent study completed by NMFS directly relating to shading from piers, but it does nothing more than confirm grating is more effective than prisms and references previous inconclusive studies. It is important to keep a balanced perspective when reviewing such literature since, as stated above, funding and objectives are driven by the agencies which regulate shoreline activity. As discussed later in this letter, much of the policy is being made through correlation and not direct supporting evidence.

In working with all waterfront communities along Lake Washington and nearly all in the Puget Sound Region, we have found that while SMPs can vary greatly between jurisdictions, all are doing an exceptional job of evaluating, monitoring and controlling the unique needs of their residents in a highly responsible manner. **It is important that local communities retain their autonomy while cooperating with state and federal agencies in order to make decisions that best serve their own citizens and do not weaken their responsibility to local interests. It is healthy and responsible for local leaders to question state and federal agencies and not simply take mandates at face value without solid data to support requested changes which reach beyond local government and directly touch property owners themselves.**

Many local government leaders may not understand the system of checks and balances in place to regulate shoreline development, especially for projects at or beyond the Ordinary High Water Line (OHWL). This can result in making decisions and changes based on limited knowledge that may not be made if more were known. Under the State Environmental Policy Act (SEPA), WAC 197-11-660(e), Substantive Authority and Mitigation points out that "Before requiring mitigation measures, agencies shall consider whether local, state, or federal requirements and enforcement would mitigate an identified significant impact." The current process can require various and overlapping mitigation at each level of government review. When we initially meet with property owners they are overwhelmed at the number of permits amount of mitigation they will need for their inwater project when the process for residential construction is relatively simple.

In order to construct a new pier or do bulkhead work, projects need the following permits and/or approvals at a minimum:
Local Government:

- Shoreline Substantial Development Permit (SSDP)
- State Environmental Policy Act Determination (SEPA)
- Building Permit (BP)
- Clearing & Grading/Drainage Permit

State:

- Hydraulic Project Approval (HPA)- WDFW
- Water Quality Certification/Coastal Zone Management Letter- DOE

Federal:

- *Section 10/404 Permit (U. S. Army Corp of Engineers)

*This includes consultation and concurrence by NMFS and USFWS under Section 7 of the Endangered Species Act (ESA).

Under the current system for the above permitting processes, there are overlapping responsibilities and reviews between state, local and federal agencies that make changes to most SMPs a matter of routine rather than a need for change. There are regulations in place to address impacts to the environment and fish and wildlife through both the

state and federal processes so it important that local governments are careful not to impose overly rigid restrictions on piers and other waterfront structures that residential or commercial property owners are forced to pursue Shoreline Variances or Conditional Use Permits (CUP) in many more instances. This not only results in additional permitting costs to some of the highest tax paying property owners in your jurisdiction and additional burden on staff reviewers but also relinquishes control and approval of your resident's projects to the state. The current City of Kirkland SMP does a thorough and effective job of reviewing and addressing impacts from projects that come before its experienced land use staff as evidenced by recently received shoreline permits. While some changes to the SMP may be needed, a total overhaul impacting every project by limiting individual elements or total pier size should be carefully scrutinized and pressure from the state or federal government should not be the driving factor. It is important that the city does not place all projects in a box due to the needs of individual property owners and existing and unique conditions of each site.

A local community recently adopted COE guidelines on overwater structures and it has caused many problems due to inflexibility in the local code. While intentions were good it was unnecessary because federal guidelines were already in place and are designed to accommodate flexibility and ways to mitigate for projects that do not align exactly with the regulations. The separation of regulatory powers is a win-win for everyone, especially in cases where owners are being equitably credited for the removal of existing structures resulting in improvements over existing conditions. Most importantly it encourages property owners to remove large, older piers with a lot of treated piles and replace them with smaller, fully grated piers with long spans between piles using modern construction techniques. Unlike the federal process, a SMP has very limited flexibility so your citizens are forced into seeking approval from the state for making environmental improvements. In the case of the neighboring community, projects failing to align perfectly with their rigid Development Standards are required to receive a Critical Areas Land Use Permit. If the Development Standards, currently in the Critical Areas Regulations (CAO) are adopted into their SMP then it will mean each of these projects must seek approval from DOE where their property owners will face additional scrutiny, delays, expense and a good chance of denial. As mentioned above, with state and federal regulatory guidelines designed to work with property owners already in place this is unnecessary and reflects overregulation. WE understand the state disagrees with this position.

WDFW is charged with protecting all fish and wildlife of the state, including those listed as Species of Concern along with sport fish. The grueling COE permit process includes a complex review to address all federal listed species and/or critical habitat. The two federal agencies charged with protecting federally listed species and critical habitat are NMFS and USFWS. Under the COE federal permit program, permit applications must be reviewed for the potential impact on threatened and endangered species pursuant to Section 7 of the ESA. The Corps, through informal and formal consultation procedures with the NMFS and USFWS, must evaluate information on the presence of listed species (including timing and life stages), habitat for such species and their prey sources, and other parameters. The Corps permit process along with the local process also includes reviews and comment by the applicable tribal agency under federal agreement.

For residential overwater structures on Lakes Washington and Sammamish, a Regional General Permit 3 (RGP-3) has been established to streamline the federal permitting process. For boatlifts and canopies, a Regional General

Permit 1 (RGP-1) has been instituted. Even though the RGP-3 text itself uses the term "requirements" for the standards listed in the document, those at the agency and anyone involved closely with the federal permit process understand that these have been merely used as flexible guidelines or recommendations by the Corps and the federal services. The flexibility exercised by the Corps has resulted in a cooperative effort between agency and applicant to design new and replacement piers in a more fish friendly and environmentally responsible manner. Each project approved for redevelopment has resulted in a measurable improvement over previous conditions. It is trusted this is what local planning departments and state environmental agencies would like to see continue. These same "requirements", "guidelines" or "development standards" in a SMP would seriously damage the progress made in decreasing the size of new and replacement piers and the installation of native vegetation planting plans on Lake Washington and Lake Sammamish. For property owners who choose to meet or come close to meeting the guidelines a BE is not required and the process can be completed in a matter of several months. For those who cannot or choose not to meet the guidelines the more traditional Letter of Permission (LOP) process is still available but takes longer. We have found that most pier projects do not align with the RGP-3 so the LOP process is used. Each process leads to a permit being issued but those going through the LOP process must be sent to federal services for consultation and concurrence. Each of the Regional General Permits (RGP) were issued in 2005 and were updated as late as 2007 meaning they address current listings for federally protected species.

We have local, state and federal approvals for many projects in Lake Washington in a variety of shapes, sizes and elements. Two of my recent projects involve approval by the City of Kirkland and have received the Hydraulic Project Approvals from WDFW and Corps of Engineers Permits. One project is for a 772sqft pier replacing a smaller pier and the other is for a new 622sqft pier with a boatlift. The first was approved under the LOP process and the second under the RGP-3 and RGP-1 processes. Even though the preferred limit for single family residential piers on Lake Washington is 480sqft, we were able to work within the federal and state permitting process to have projects far exceeding the guidelines approved. Every project reviewed by WFDW, COE, USFWS, and NMFS are evaluated by fully qualified biologists. It is unknown if projects sent to DOE are reviewed by qualified biologists or if they simply receive an administrative review to ensure they align with a local SMP. These projects were professionally evaluated by Kirkland's planning staff under the city's existing Shoreline Master Program and by federal regulators under the Endangered Species Acts and determined to have a "Not Likely to Adversely Affect" listed species or critical habitat. The approval of these projects at each level, especially by those agencies responsible for protecting species and critical habitat at the state and federal levels, is an indication that the City of Kirkland is doing an effective job of reviewing and issuing shoreline permits and rendering SEPA determinations at the local level.

I also had a project for an 876sqft pier, 360sqft solid moorage cover (1,236sqft total), 2 mooring piles and a boatlift approved and recently constructed on Lake Washington. The standard wording on the Corps permit is as follows; "The U. S. Army Corps of Engineers' (Corps) regulatory program provides for the authorization of certain work that is minor in nature, would not have significant individual or cumulative impacts on the environment, and should encounter no appreciable opposition by a type of permit known as a Letter of Permission (LOP). We have determined that the construction of the pier and moorage cover and the installation of the boatlift and mooring piles meets these requirements and is authorized by this LOP. The project also include the removal of a small amount of bulkhead and a rock groin and construction of a rockery and plantings included in the shoreline and SEPA but landward of federal authority This project was approved by a local government and each of the agencies previously listed in this letter and is provided to show that large, environmentally responsible projects are still receiving approval. This was declared an improvement over existing conditions.

I also have a project recently approved just southwest of Kirkland for a 924sqft pier and 448sqft moorage cover (1,372sqft total), 748 lineal foot replacement bulkhead, 3 beach coves, 2,000sqft planting plan of native riparian vegetation, and the creation of 7,000sqft of shallow nearshore fish habitat. The property owner received full credit from WDFW and consideration from COE, USFWS and NMFS for the removal of existing structures and the project was actually declared an improvement over existing conditions, despite the size of the pier and moorage cover.

These are several of many projects approved and constructed on Lake Washington where a flexible, practical and reasonable SMP permitted property owners to have a pier which meets their individual and personal needs while exercising responsible stewardship toward the valuable resources of our region. If the local SMP were written in any other way it is likely that these and many other projects would not have received approval and solid piers and structures with large amounts of overwater coverage, especially in the most critical nearshore area, would remain in place for many years into the future. It is the responsibility of local, state and federal regulatory agencies to recognize and offer incentives for those property owners removing highly impacting existing structures when they are replaced by more environmentally responsible projects, whether or not they do not fit ideally into the "regulatory box". Each of these projects, along with all others over the past few years, have resulted in limited overwater coverage in the nearshore area and shifted the vast majority of boating and aquatic activities to deeper water where impacts are non-significant. Responsible regulating must reflect a give and take from government and property owners to respect those who participate in the regulatory process and limit the number of renegade property owners and contractors who construct projects without permits.

In each of the cases above, had the SMP for each of these waterfront communities contained overly restrictive regulations they would have required Shoreline Variances and approval from DOE. The criteria listed in the WAC to meet the requirements and justify issuance of a Shoreline Variance are written in such a manner that it is difficult if not impossible for a project to receive approval. In all likelihood, none of the projects would have received approval and existing impacts would continue.

It is strongly suggested that local SMPs include a process to evaluate those property owner who have existing structures being replaced or modified differently than those who have undeveloped shorelines. Encouraging property owners to decrease the size or modify the configuration of their current structure by proposing a more environmentally friendly pier or bulkhead, even if it does not align with newly proposed structures, will benefit everyone and the environment. Having a single standard and process for everyone will deter many property owners from even considering changes if there are no incentives to respect and recognize their "good faith" efforts.

CITY OF LAKE FOREST PARK SMP UPDATE

We were told at one city council meeting that the City of Lake Forest Park (LFP) has already approved and adopted their updated SMP but it appears it is still being reviewed. Today, I had the opportunity to review LFP's development standards for overwater structures under consideration. It appears the city is close to adopting the Corps of Engineers Regional General Permit 3 (RGP-3) guidelines, which as stated earlier, are only guidelines. Should LFP adopt these guidelines as their local standards, any deviation outside this very small "box" will require a Shoreline Variance to be reviewed and approved by DOE unless an alternate process for local approval has been established. This will deter waterfront property owners from replacing larger, older overwater structures with more environmentally friendly piers unless it can be done through a Shoreline Variance and approved by DOE.

The above scenario also places a larger percentage of projects for LFP's waterfront owners in the hands of the state and removes local control. One must wonder if the City Council, Planning Commission, Planning Department and residents of LFP who participated in the SMP update process fully understood this would happen. If these governing bodies knew, then their adoption of the Corps RGP-3 guidelines as LFP's development standards is an informed decision. But, if DOE and the Biological Consultant contracted by LFP through funding from DOE presented the RGP-3 as strict requirements and the only way to have projects approved at the federal level and not as guidelines then those participating in the process were misinformed. Had those participating known that many projects in Lake Washington much larger than the figures listed in the RGP-3 and the proposed Chapter 8 of the LFP draft SMP have been approved at every local, state and federal regulatory level would a different conclusion or set of standards be up for consideration by LFP at this time?

Additionally, do the people participating in the LFP update process know there is an alternate process for obtaining a permit from the Corps of Engineers known as a Letter of Permission (LOP) for projects that do not align with the standards? This is one of the most common methods used for applying and receiving federal permits. If DOE convinces local governments to adopt overly stringent guidelines through their SMP then projects that would typically be approved through the LOP process will all but disappear because they will be closed down at the local or state DOE level. These are all projects that would meet standards for the protection of listed species and critical habitat under Section 7 of the Endangered Species Act.

CITY OF RENTON SMP UPDATE

On April 30, 2008, I attended the City of Renton SMP Update Public Kick Off. Renton's Planning and Land Use staff is excellent to work with and have served the residents within the shoreline areas well over the years. Upon walking into the City Council Chambers for the meeting I noted that the Corps RGP-3 Guidelines were displayed on a static display board as "Requirements". This is a misleading characterization of federal recommendations for Lakes Washington and Sammamish projects to achieve a "may affect, not likely to adversely affect" determination on listed species and/or critical habitat. This led to spirited discussion prior to, during and following the presentation. Had I not been present to point out the difference and that none of our hundreds of projects approved since the introduction of the RGP-3 meets these guidelines both the city staff and those stakeholders in attendance would have believed meeting these requirements is the only way to receive approval from state and federal regulatory agencies. Local governments and property owners for the most part, and rightfully so, believe the information they are being provided by the state and the planning consultant they have hired to work on their behalf are providing concise and honest information. As a result they do not tend to question it.

The "no net loss of ecological functions" goal was repeated throughout the presentation and the need for the City of Renton to fit into the larger watershed picture was emphasized. No net loss of ecological functions was not clearly explained by the planning consultant hired by the city and how redevelopment or replacement of existing structures which do not align with the "Requirements" should be handled was not mentioned. The presentation failed to state that such projects are encouraged, make valuable and measurable improvements over existing conditions, can be handled individually through a different process, and achieve a "gain in ecological functions" whereby exceeding the goal of "no net loss" at specific sites and over time resulting in cumulative improvements.

I reviewed a survey sent to approximately 500 property owners living within the areas regulated by the local Shoreline Master Program. I questioned the biological consultant on the following survey question, "Large docks have been identified as a possible contributor to declines in salmon due to predators that prey on juvenile salmon. Do you think docks should be restricted?" I asked if there was hard data to support such a statement and showing how many salmon were consumed by predator fish in Lake Washington and Lake Sammamish and was told no but the statement was made using a correlation of data collected showing that shading under piers aided predators. During the course of our conversation I nearly accepted the authoritative manner in which it was impressed upon me that correlation is an acceptable scientific practice used to draw conclusions and therefore apply best available science.

Phraseology such as "possible contributor" allows the state and biological consultants to make such statements and pose leading questions that make average people think that large docks are major contributors to the decline in salmon even though there are many factors. It appears that overwater structures and waterfront property owners are an easy audience not only to blame and require a "no net loss of ecological functions" but result in "restoration of ecological functions" existing prior to the lake being lowered by the Army Corps of Engineers and urbanization took place. No net loss and restoration of ecological functions are apparently highly attainable goals when someone else is being told how to reach them and covering the cost to that end. In this case, it is primarily aimed at property owners.

Additionally, there was no reference to single family residential piers or docks being a water dependent use. The only water dependent uses referred to in the presentation were "non residential". Please note that WAC 173-26-176 supports statements from the legislature outlined in RCW 90.58.020 (h) Recognizing and protecting private property rights in that, "The legislature finds that much of the shorelines of the state and the uplands adjacent thereto are in private ownership;… and, therefore coordinated planning is necessary… while, at the same time, recognizing and protecting private rights consistence with public interest." The aforementioned survey did not ask if they felt the rights of private property owners should be protected or if waterfront property owners should be allowed to have overwater structures that suit their quality of life and needs within reason.

Recalling the conversation on correlation, on May 1, 2008 I spoke with a biologist about using correlation to draw any conclusions, let alone those which will touch thousands of citizens in the towns, cities and counties impacted by updates to their SMP, especially those living along Lakes Washington and Sammamish. I was told that correlation is not an acceptable method for arriving at conclusions or imposing change based on the phrase "Correlation does not imply causation."

Wikipedia defines it as following:
Correlation does not imply causation is a phrase used in the sciences and statistics to emphasize that correlation between two variables does not imply that one causes the other. Its negation, *correlation proves causation*, is a logical fallacy by which two events that occur together are claimed to have a cause-and-effect relationship.

We will continue to follow the Renton SMP Update in hopes that there will be a balanced, practical and common sense approach taken and that a separate process will be created to process applications for redevelopment of existing structures not resulting in a need for a Conditional Use or Shoreline Variance that will need to be approved by DOE. Our impression is that the Senior Planner leading the SMP Update is insightful, highly qualified and sensitive to what is at stake for all parties and that she is genuinely interested in the city's responsibility to its citizens and the ability to balance it with a SMP meeting state requirements.

CITY OF SAMMAMISH SMP UPDATE
I attended the City of Sammamish SMP Update before the Planning Commission on May 15, 2008. The information for the most part was identical to those in other jurisdictions with the RGP-3 guidelines once again being presented as requirements. The biological consultants appeared less familiar with shoreline permitting issues and requirements than consultants used by other local governments and during public comment I was able to correct several bits of misinformation and confusion. There were only a handful of people in attendance in a city that has several freshwater lakes and quite a few waterfront property owners. This may be an indication that people are not being reached or they do not understand the far reaching changes being proposed.

CITY OF KIRKLAND SMP OPEN HOUSE
On June 9, 2008, I attended the City of Kirkland SMP Open House. I applaud Stacy Clauson and the city for their efforts in trying to reach as many interested parties as possible. Kirkland is the envy of most communities because of their diverse waterfront and how well they have worked to provide public access while respecting private property rights. The forum was attended by 20 to 30 folks with about 8 to 10 waterfront property owners making it the best attended gathering thus far. There was a nice mix of people and some good questions asked. It appeared that some of the responses did not provide complete and clear answers. The literature available was published for the most part by WRIA 8 and addressed a variety of issues. There was a chart on "No net loss" that made it look as though cumulative impacts or gains from one

property were to be evaluated in conjunction with the overall impacts throughout the community. I have requested a copy of the chart from Stacy because it is the first time I have seen it. I also mentioned to Stacy that a change in the SMP to make development standards for piers stricter would move a lot of existing piers into a legally non-conforming status and when the time comes for repair or modification their could be complications since these are viewed differently than conforming structures.

On June 11, 2008 I received and reviewed a copy of the requested "No Net Loss and Restoration Opportunities" display chart. "No Net Loss" is described as "The Shoreline Master Program should preserve the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the state and protect 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. This seems to apply more to public access areas rather than private property but it should be noted that any project that results in 'no net loss of ecological functions', a 'net gain in ecological functions' or what may even be viewed as 'restoration of ecological functions' when occurring on private property would further assist the city in meeting this goal. This is a primary reason for having an alternative process for redevelopment of existing piers where measurable improvements over existing conditions would occur.

LAKE FOREST PARK SMP UPDATE PUBLIC MEETING

On June 11, I attended the Lake Forest Park (LFP) SMP Update Public Meeting. It was well attended with a large percentage of waterfront property owners. Several waterfront property owners are on the City Council and the Citizen Advisory Board so this may heighten the interest in LFP since these citizens will be most impacted by any changes. The Biological Consultant, Dan Nickel, from The Watershed Company, gave the most informative, relatively balanced and polished presentation to date. He addressed many questions and concerns and requested my input on several issues related to 'no net loss of ecological functions', bulkhead removal and replacement, shoreline restoration, and redevelopment of existing piers.

Redevelopment is a major concern and issue in LFP because there are only 6 lots without piers, 4 of which may be candidates for new piers in the future. The attendees and those on the council and advisory board seemed very interested in an alternative process for redevelopment that may exceed the development standards for new piers. In conversation following the meeting it seems that LFP is tentative at being the first community on Lake Washington to submit and have their SMP approved by DOE since they understand others will use it as a guideline. Several people, including myself, stressed that the less restrictive the SMP is in reference to size, width or length the better since each project is unique. Although DOE would like to see strict development standards identified (which would push a lot more projects into the stringent Variance process), I stressed that the separation of responsibilities between local, state (WDFW) and federal (Corps of Engineers, NOAA- Fisheries, and USFWS) have served the lake communities well because combined they address all elements of ecological and marine environment protection. Aerial photos of Lake Washington and Lake Sammamish will likely reveal that the size of piers being built today compared to as little as 5 years ago are much smaller and many large structures, including large platforms and boathouses have been removed and not replaced or replaced with smaller structures.

A review of the draft LFP SMP standards for piers will place a large percentage of structures into what is classified as legally non-conforming. This means that modification, expansion, or relocation of any distance, even when it results in an improvement over existing conditions, must be brought into conformity with the existing SMP standards. Unless an alternative process for reasonable redevelopment is established it will essentially deter any incentive for a property owner to remove or modify an existing pier with a more environmentally friendly structure.

Discussion on bioengineered alternatives to bulkheads and decrease of shoreline setbacks tied to removal of an existing bulkhead and restoration of the natural shoreline and native plantings was spirited and

received pretty well. The ability to decrease the proposed 40 or 50 foot setbacks to as little as 20 feet through mitigation offset seemed to be received well with the understanding that the number of developed lots would mean that owners would in most cases be able to rebuild within the existing footprint and not be impacted by the changes to the SMP. People seemed very responsive to the fact that state and federal agencies are more open to installing nearshore fill in the lake so the OHWL is not relocated landward resulting in a loss of property. Many of the lots are pretty deep in LFP and therefore eligible for shoreline restoration and native plantings that would improve lake access and promote better nearshore habitat.

LFP is a prime example where an alternative process for redevelopment of existing overwater structures is vital if the SMP update is to have the greatest impact on improving habitat. Avoiding the Variance process and handing over control of projects for waterfront property owners who are making improvements over existing conditions but not meeting development standards the city is considering as a result of the RGP-3 guidelines being promoted as requirements and used by DOE as a baseline for 'no net loss' should be a major concern. It seems LFP is open to this option and one advisory board member requested I provide him with a possible method to be use.

I also requested that the biological consultant and the city consider providing a real life example from an existing property with a pier in place. Showing what currently exists versus what can be approved through redevelopment if a separate process is not established will be most telling.

I get the sense that with continued involvement and strong input from citizens and concerned council, commission and committee members, and a responsive staff that LFP may be the proper community to prepare the way for others. The citizens of this community are concerned and a close knit group committed to protecting private property rights and presents a much different scenario than other communities where there is little or no waterfront property owner communication or involvement in the process. Even though this may be due to the smaller number of waterfront property owners it reflects how each local government should approach this issue by considering those most impacted and asking "What changes are really necessary and is our existing program effective when state and federal reviews are also involved in the process?"

Many waterfront communities did not receive funding from DOE and/or are not due to have their SMP updated until on or after 2013. These communities will continue to review and approve projects under existing development standards which will also be approved by state and federal regulatory agencies charged with protecting listed species and critical habitat. This means that local governments choosing to adopt RGP-3 guidelines as their development standards are placing unfair and inequitable restrictions on their residents and essentially preventing them from constructing overwater structures that others on Lake Washington will have approved for years to come. This is why less restrictive development standards and regulations at the local level makes sense and will allow for projects designed to meet local, state and federal guidelines to be approved for the region's waterfront property owners to be approved.

Please exercise balanced and practical judgment and consideration as you evaluate changes to the SMP because once local control and regulatory authority is relinquished to any degree the opportunity of having it returned is remote at best. Waterfront property owners in the City of Redmond have reportedly challenged some of the early changes by their City Council and had them overturned. The City Council may have made decisions based on a lack of understanding or misinformation as to what the SMP updates need to address.

We are not against regulations designed to protect the environment and serve in the best interest of property owners, local, state and federal governments. We do ask that regulatory agencies apply a balanced approach and pass valid, accurate and complete information on to local governments so they can make informed decisions on what is and is not required or necessary. Anything short of that result would undermine the process and the role of government in

the lives of its citizens. **There is no room for personal or extreme agendas on an issue like this that will impact so many people.**

While this letter has been geared mainly toward overwater structures, it is vital that local councils and commissions also review all available information on the push to have waterfront property owners remove and/or replace/repair existing bulkheads with bioengineered solutions. While this may be viewed as positive for the marine environment the impacts on property need to be carefully weighed. Restoring natural shorelines will not work in all locations and in many cases depending on the water depth at the face of the existing bulkhead a property owner will need to shift their shoreline landward quite a bit. When a bulkhead is removed the Ordinary High Water Line is naturally moved landward. This can impact both the shoreline setback and amount of impervious surface for the parcel and push the upland development into a nonconforming status impacting existing and future development for property owners. In cases where adjacent properties have bulkheads it can cause accelerated erosion to the site of the natural shoreline. The primary way to prevent this is to elevate the lake bottom causing wave energy to dissipate further from the property. This means installing a large amount of fill into the nearshore area, including the lake, in order to cause the upland and shoreward grades to naturally meet at an elevation somewhere at or near Lake Washington's Ordinary High Water Level of 21.80' which is when wave and wake activity would be most damaging.

In winter months when storm activity is at its peak the lake is lowered to around 20.00' so the threat of erosion is not as real unless a major event was to take occur. While I am not an expert and we have no biologist on staff, we have constructed hundreds of fresh and salt water bulkheads and shoreline restoration projects and understand what does and doesn't work. Marine contractors are rarely contacted to share their experience on these issues when changes are being considered or implemented. This results in guidelines that are impractical, unreasonable or too costly for the average property owner to accomplish. Companies like ours benefit from all types of shoreline work, whether bulkheads or natural shoreline restoration, so our main incentive is the protection of property rights for our valuable and hard-working client base.

Please excuse the length of this letter but it was the only way to provide a complete picture of what your waterfront property owners and government are facing. It will also impact the number of projects and fees collected by the city or county and future revenue generated through tax dollars based on property values. Thank you for your time and consideration on this very important issue for your residents. One important question to ask yourself is, "Is our SMP broken and in need of repair or does it work effectively for our city or county and our citizens?"

If anyone receiving this would like some examples of the hundreds of projects that have been approved throughout the Puget Sound and specifically in Lakes Washington and Sammamish since the introduction of the Corps RGP guidelines please contact me at the Everett office at 425-357-0312.

Respectfully,

David Douglas
Permit Coordinator
Waterfront Construction, Inc.

US Army Corps of Engineers
Seattle District

Proposed Department of the Army Regional General Permit

RGP-3

Construction of New or Modification of Existing Residential Overwater Structures and Installation of Moorage Piling in Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal

Effective Date: March 7, 2005 **Expiration Date:** March 7, 2010

Permit Number: RGP-3

Permit Title: Residential Overwater Structures in Lake Washington, Lake Sammamish, Lake Union and Lake Washington Ship Canal

Authority: In accordance with 33 CFR 325.2(e)(2), the U.S. Army Corps of Engineers (Corps) is issuing this Regional General Permit 3 (RGP 3) that would authorize certain activities in or affecting waters of the United States, including navigable waters of the United States, upon the recommendation of the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344).

Issuing Office: U.S. Army Corps of Engineers, Seattle District
Regulatory Branch, CENWS-OD-RG
Post Office Box 3755
Seattle, Washington 98124-3755
Telephone: (206) 764-3495

Purpose: The purpose of RGP 3 is to authorize the construction of new or modification of existing residential overwater structures and installation of moorage piling in Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, including the Lake Washington Ship Canal.

Use of RGP-3: To use RGP 3, a prospective permittee must first notify the Corps of the proposed work in accordance with the application procedures (see page 2). ***A proposed project is not authorized under this RGP, and work may not commence, until the District Engineer or his designee has issued written notification that the proposed project meets the requirements of this RGP and is authorized.*** The permittee and all contractors performing work are responsible for ensuring that the authorized work complies with all applicable provisions of RGP 3, including any project-specific special conditions that may be added by the District Engineer. Failure to abide by the requirements of RGP 3 may constitute a violation of the Rivers and Harbors Act or the Clean Water Act. For purposes of this RGP, the term "permittee" shall include all successors in interest.

RGP-3 contains provisions intended to protect the environment, endangered species, and cultural resources. Work that will not comply with these provisions is not authorized by this RGP and may require Department of the Army authorization by a standard individual permit. Moreover, compliance with the provisions of RGP-3 does not itself guarantee that the work is authorized by this RGP.

Activities that appear to comply with the provisions of RGP 3 but would have an unacceptable adverse impact on the public interest are not authorized.

Location of Authorized Activities: RGP 3 is applicable in Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, including the Lake Washington Ship Canal.

Activities Authorized by this RGP: Work authorized by RGP-3 is limited to the construction of new or modification of existing residential overwater structures including piers, floats, ramps and other similar structures and/or installation of moorage piling and future maintenance of authorized facilities. Once the work is authorized by RGP-3, any proposed modifications beyond the limitations of RGP-3 must be approved by a Department of the Army Individual Permit. This RGP only authorizes one pier/ramp/float structure per property. There are further limitations for joint use piers (see Application Procedures section below). Definitions of terms used in this RGP are located in Appendix F of this document.

This permit authorizes fill material placed for the purposes of fish habitat enhancement, as required by the Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife. Also, any Corps required mitigation measures for the overwater structures are also authorized by this RGP.

Application Procedure: Authorization under RGP 3 requires that a prospective permittee notify the Corps of the proposed work in accordance with the application procedures described in this section and not proceed with the proposed work until the District Engineer or his designee issues written notification that the proposed project meets the requirements of this RGP and is authorized. To notify the Corps of a proposed project that may qualify for authorization under this RGP, the prospective permittee must submit the following information:

1. A complete ***Specific Project Information Form (SPIF)*** for RGP 3 (see Appendix A). Submittal of a completed *SPIF* for RGP 3 constitutes the applicant's voluntary agreement to meet all of the requirements of this RGP.

2. A "complete application" including appropriate vicinity map, plan, profile, and cross-section drawings of the proposed work and structures and overwater structures on adjacent properties, as well as estimates of the volume of each type of material that would be discharged (temporarily or permanently) into waters of the United States (for assistance with preparation of the drawings, please refer to Appendix B, *Drawing Checklist*). A complete application must also incorporate appropriate impact reduction measures as discussed in the *Construction Specifications and Conservation Measures* section below (see paragraph 10).

3. A drawing showing the planting plan and species list (see Appendix C) must be included with the project drawings discussed above.

4. If the structure will be "joint use" you must:
   a. List all property owners using the joint use pier as co-applicants and they must sign the application form.
   b. Provide a joint use agreement signed by all involved property owners; the agreement must state that each property owner voluntarily agrees to build no overwater structures on their property except for the authorized joint use overwater structure.
   c. Show on a drawing the location of all properties involved in the joint use agreement.

5. For activities that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places, the notification must include a description of each historic property that may be affected by the proposed work and a map indicating the location of the property.

6. Any other relevant information, such as photographs of the project area, a description of any offsite borrow site that would be used, and a copy of the HPA.

Upon receipt of a complete application, the Corps will forward a copy of the SPIF and any relevant information, including the HPA, to NOAA's National Marine Fisheries Service and the U.S. Fish and Wildlife Service (Services), and the Muckleshoot Indian Tribe. The Services and the Tribe will have 21 calendar days to provide comments on the application. If no comments are received, the Corps will complete its review, and if appropriate, issue written notification to the applicant that the proposed work meets the requirements of the RGP provided all other terms and conditions of the RGP are met.

If the Services or the Tribe raise any issues relating to the project, resolution of these issues must occur prior to the Corps confirming that the project meets the requirements of the RGP. If a resolution cannot be reached, the project may require additional information or may need to be processed using the Corps' individual permit procedures.

Construction Specifications and Conservation Measures: The following construction specifications and conservation measures must be implemented for the work to be authorized by this RGP:

1. Number of Overwater Structures. This permit authorizes the construction, expansion or modification of only one non-commercial, residential moorage facility per upland residential waterfront property owner or one joint-use moorage facility for two or more adjacent waterfront property owners.

2. Existing In-Water Structures. Any existing in-water and overwater structures within 30 feet of the ordinary high water (OHW) line (with the exception of bulkheads), except for those facilitating access as authorized by this permit, shall be removed and no additional in- or over-water structures shall be constructed in this nearshore area over the entire length of the property without notifying the Corps.

3. Pier, Ramp, Float, and Ell Specification Options. Note that only piers and ramps can be within the first 30 feet from shore. All floats and ells must be at least 30 feet waterward of OHW. No skirting is allowed on any structure.

   a. Surface Coverage (includes all floats, ramps, and ells):
      (1) Single property owner: 480 square feet
      (2) Two property owners (residential): 700 square feet
      (3) Three or more residential property owners: 1000 square feet.

   b. Height above the water surface: except for floats, the bottom of all structures must be at least 1.5 feet above OHW.

   c. Widths and lengths:
      (1) Piers - must not exceed a width of 4 feet and must be fully grated with at least 60% open area.
      (2) Ramps - must not exceed a width of 3 feet and must be fully grated.
      (3) Ells - must be in water with depths of 9 feet or greater at the landward end of the ell.
         a. Up to 6-feet wide by 20-foot long with a 2-foot strip of grating down the center.
         b. Up to 6-feet wide by 26-foot long with grating providing 60% open area over the entire ell.
         c. One 2-foot wide by 20-foot long, fully grated finger ell is allowed.

(4) Floats- must be in water with depths of 10 feet or more at the landward end of the float. Floats can be up to 6 feet wide and 20 feet long, but must contain a minimum of 2 feet of grating down the center of the entire float.

4. Length of Structures compared to Adjacent Structures. The length of a pier is limited by the maximum square footage allowed (see item no. 3 above). Any proposed pier that extends further waterward than adjacent piers will be reviewed on a case-by-case basis to assess impacts on navigation. Piers determined by the Corps to have an adverse effect on navigation are not authorized by this permit.

5. Piling Specifications. The first in-water (nearest shore) set of pilings shall be steel, 4" piling and at least 18' from the OHW. Piling sets beyond the first shall also be spaced at least 18 feet apart and shall not be greater than 12" in diameter. Piles shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds. If ACZA piling are proposed, the applicant will meet all of the Best Management Practices, including a post-treatment procedure, as outlined in the amended Best Management Practices of the Western Wood Preservers. All piling sizes are in nominal diameter.

   Steel piles will be installed using approved sound attenuation measures. These measures can be found on the Corps website: *http://www.nws.usace.army.mil/reg.html*.

6. Treatment of Overwater Structural Materials. Any paint, stain or preservative applied to components of the overwater structure must be leach resistant, completely dried or cured prior to installation. Materials shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds.

7. Existing Habitat Features. Existing habitat features (e.g., large and small woody debris, substrate material, etc.) shall not be removed from the riparian or aquatic environment. If invasive weeds (e.g., milfoil) are present and applicant wishes to remove them, removal shall occur by non-chemical means only with authorization from the Washington State Department of Fish and Wildlife.

8. Mooring Piles. This permit allows for no more than 2 mooring piles installed per structure authorized by this RGP. Joint-use structures can have up to 4 mooring piles. The 2-pile limit for individuals and 4-pile limit for joint-users shall include all existing mooring piles. Moorage piling shall not be installed within 30 feet of the OHW line; shall not be placed any further waterward than the end of the pier; and shall not be placed more than 12 feet from the pier. These piles shall be as far offshore as possible.

9. Future Maintenance of Facilities. Future maintenance of facilities authorized by this RGP are authorized provided there is no change in size, configuration, or use of the facility; that all maintenance is conducted in accordance with all conditions contained herein and in the RGP verification letter; and as long as no new species have been listed under the Endangered Species Act. Before doing any overwater or in-water maintenance, applicants must contact the Corps to determine whether a separate permit is necessary.

10. Impact Reduction Measures. The above-described construction measures will minimize impacts of these structures to the aquatic environment. However, because of cumulative impacts of numerous floating and stationary structures to be authorized under this RGP, impact reduction measures must be implemented. Impact reduction measures consist of planting emergent vegetation waterward of OHW (if site appropriate) and a zone of riparian vegetation a minimum of 10-feet wide along the entire length of the shoreline immediately landward of OHW. Joint-

use piers will require a planting plan covering all properties sharing the pier. A path 6-feet wide or less is allowed through the zone of riparian vegetation for access to the pier. Chemical fertilizers, herbicides and pesticides shall not be applied to the riparian zone.

The purpose of this zone is to establish a riparian plant community and associated food web that can be used by migrating salmonids as they pass through the project area. The vegetation will provide food, organic matter, and root structure for protection of juvenile fish in the near shore area. Woody debris from the buffer that enters the water will provide nutrients to the lake ecosystem. Therefore, woody debris shall not be removed from the water or shoreline.

A permittee is required to establish and preserve impact reduction plantings at the project site for the duration that the overwater structure is in place. The intent of the shoreline planting should be to provide a continuous native plant community along the shoreline. The impact reduction planting will consist of native shrubs and trees and, when possible, emergent vegetation. At least two native trees and three willow plants (See Appendix D) shall be included in the planting plan. Planting density and spacing should be commensurate with spacing recommended for each individual species. Prior to issuance of an RGP, the Corps must approve the prospective permittee's planting plan and species list and numbers. The impact reduction planting must be completed within 12 months of the Corps' issuance of an RGP to the permittee.

Other impact reduction measures may be proposed by the applicant, particularly if riparian plantings are not feasible, due to lack of space. These will be reviewed and approved by the Corps, the U.S. Fish and Wildlife Service and NOAA's National Marine Fisheries Service on a case-by-case basis.

11. Impact Reduction Planting Performance Standards. One hundred percent survival of all planted native trees and shrubs is required during the first and second years after planting. During the third through fifth years after planting 100 percent of the trees must survive and 80 percent survival of the remaining native plants is required. Individual plants that die must be replaced with native shrubs and trees taken from the approved species list (see Appendix C).

12. Impact Reduction Reports. Impact reduction reports must be submitted to the Corps for all projects as follows:

    a. A status report on impact reduction construction, including as-built drawings, must be submitted to the Corps 12 months from the date the Corps issues an RGP to the permittee. Status reports on impact reduction construction will be due annually to the Corps until the Corps accepts the as-built drawings. The permittee can meet this reporting requirement by submitting to the Corps a completed *Status Report for Impact Reduction Construction*, found in Appendix D.

    b. For impact reduction planting, monitoring reports will be due annually for 5 years from the date the Corps accepts the as-built drawings. The impact reduction monitoring report will include written and photographic documentation on tree and shrub mortality and replanting efforts. The permittee can meet this reporting requirement by submitting to the Corps a completed *Impact Reduction Monitoring Report*, found in Appendix E.

13. Allowable Work Windows for Bald Eagles. The prospective permittee agrees to abide by the work window established by the Corps (please refer to the Corps, Seattle District, Regulatory Branch Internet homepage, *http://www.nws.usace.army.mil/reg.html* for the current listing of approved work windows). Adherence to these timing windows is necessary, in most cases, to maintain a not likely to adversely affect (NLAA) determination if all other measures have

reduced the project impacts to this level. Variations in this work window are based on the distance of the proposed project to the nearest bald eagle nest and wintering concentration. The Corps will coordinate with the U.S. Fish and Wildlife Service to determine the appropriate work window once an application is submitted.

14. Allowable Work Windows for Listed Fish Species. In addition to the work windows for bald eagles listed above, work must comply with established fish work windows for the corresponding portion of Lake Washington, Lake Sammamish, the Sammamish River or Lake Union, including the Lake Washington Ship Canal. (Please refer to the Corps, Seattle District, Regulatory Branch Internet homepage, *http://www.nws.usace.army.mil/reg.html* for the current listing of approved work windows.)

15. Work in the Dry. Work that disturbs the substrate, bank, or shore of a water of the United States shall occur in the dry whenever practicable.

16. Operation of Equipment. Equipment shall be operated from the top of the bank, dry gravel bar, work platform, or similar out-of-water location whenever possible. Equipment shall be operated in a manner that minimizes the suspension of particulates. All equipment used in or around waters shall be clean and inspected daily prior to use to ensure that the equipment has no fluid leaks. Should a leak develop during use, the leaking equipment shall be removed from the site immediately and not used again until it has been adequately repaired. Equipment should be stored and/or fueled at least 100 feet from any surface water where possible.

17. Disturbance of Vegetation. Disturbance of bank vegetation shall be limited to the minimum amount necessary to accomplish the project. Disturbed bank vegetation shall be replaced with native, locally adapted herbaceous and/or woody vegetation. Herbaceous plantings shall occur within 48 hours of the completion of construction. Woody vegetation components shall be planted in the fall or early winter, whichever occurs first. The applicant shall take appropriate measures to ensure revegetation success.

18. Isolation of Work Area. In-water work areas shall be isolated from the surrounding waterbody by properly installed silt screen or similar sediment containment device whenever practicable. The permittee shall remove these temporary sediment containment devices as soon as the devices are no longer necessary to protect the surrounding waterbody.

19. Proximity to Wetlands. No structure permitted herein shall be installed in or within 100-feet of a of either side of the mouth of any river, stream, or creek. Structures in or within 100-feet of a wetland must avoid impacts to the wetland to the maximum extent possible. “Wetlands” means those areas that are inundated or saturated by surface 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.

20. Navigation and Access to Adjacent Structures and Property. The permitted activity must not interfere with the public’s right to free navigation on navigable waters of the United States, including ingress and egress to adjacent waterfront structures and property.

Water Quality Certification: The Corps requested that the Washington Department of Ecology (Ecology), pursuant to Section 401 of the CWA and Chapters 173-225 of the Washington Administrative Code (WAC) and the requirements of the U.S. Coastal Zone Management Act (16 U.S.C. 1452 et seq.) and its implementing regulations (15 CFR 923-930), certify that those activities authorized by this RGP for which Ecology is responsible will not violate established State of Washington water quality standards

and will be consistent with the requirements of the State of Washington's Coastal Zone Management (CZM) program. On August 7, 2003, Ecology provided the required 401Water Quality Certification. By not acting on the Corps request for Certification of Consistency with the Washington Coastal Zone Management Program, state agency concurrence is presumed.

Endangered Species: The Endangered Species Act of 1973 (ESA), as amended, requires all Federal agencies to consult with NOAA's National Marine Fisheries Service and/or the U.S. Fish and Wildlife Service (USFWS), pursuant to Section 7 of the ESA, on any action, or proposed action, permitted, funded, or undertaken by the agency that may affect a species listed as threatened or endangered under the ESA, or its designated critical habitat. The Corps has completed consultation and received concurrence.

Essential Fish Habitat: The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with NOAA's National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). The Corps has determined that issuance of this RGP may adversely affect EFH for federally managed fisheries in Washington waters, the Corps has completed consultation with NOAA's National Marine Fisheries Service.

Permit Conditions: Department of the Army authorization under this RGP is subject to the following general conditions:

GENERAL CONDITIONS

1. Reliance on Permittee's Information. In verifying a permittee's authorization under this RGP, the Department of the Army has relied, in part, on the information provided by the permittee. If this information proves to be false, incomplete, or inaccurate, the permittee's authorization may be modified, suspended, or revoked, in whole or in part.

2. Compliance with Terms and Conditions. Projects authorized by this RGP shall comply with all terms and conditions herein and any case-specific conditions added by the Corps, State, or Environmental Protection Agency or a tribe as a result of a water quality certification. Failure to abide by these terms and conditions invalidates this authorization and may result in a violation of Federal law, which may require that the permittee restore the site or take other remedial action. Activities requiring Department of the Army authorization that are not specifically authorized by this RGP are prohibited unless authorized by another Department of the Army permit.

3. Contractor's Copy of Permit. The permittee shall provide complete copies of this permit and the Corps verification letter for the authorized project to each contractor involved in the project and keep copies of this permit and Corps verification letter available for inspection at the project site.

4. Compliance Certification. Every permittee shall submit to the Corps, within 30 days of completing the authorized work, certification that the work, including any required impact reduction, was conducted in accordance with the provisions of this RGP, including case-specific special conditions. The permittee must use the *Statement of Compliance Form* (Appendix D) of this RGP.

5. Access for Inspection. The permittee shall allow the District Engineer or his authorized representative to inspect the project whenever deemed necessary to ensure that the activity is in compliance with the terms and conditions prescribed herein.

6. Limits of Authorization. This permit does *not*:

   a. Obviate the requirement to obtain all other Federal, State, or local authorizations required by law for the activity authorized herein, including any authorization required from Congress.

   b. Convey any property rights, either in real estate or material, or any exclusive privileges.

   c. Authorize any injury to property, invasion of rights, or any infringement of Federal, State, or local laws or regulations.

   d. Authorize the interference with any existing or proposed Federal project.

7. Limits of Federal Liability. This permit is not an approval of the design features of any authorized project or an implication that such project is adequate for the intended purpose; a Department of the Army permit merely expresses the consent of the Federal Government to conduct the proposed work insofar as public rights are concerned. In issuing this RGP, the Federal Government does not assume any liability for the following:

   a. Design or construction deficiencies associated with the authorized work.

   b. Damages to the permitted project or uses thereof as a result of other permitted activities or from natural causes, such as flooding.

   c. Damages to persons, property, or to other permitted or unauthorized activities or structures caused by the activity authorized by this permit.

   d. Damages associated with any future modification, suspension, or revocation of this permit.

   e. The removal, relocation, or alteration of any structure or work in navigable waters of the United States ordered by the Secretary of the Army or his authorized representative.

   f. Damage to the permitted project or uses thereof as a result of current or future activities undertaken by, or on behalf of, the United States in the public interest.

8. Tribal Rights. No activity may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

9. Corps Coordination. Permittees shall coordinate with the appropriate office of the Corps prior to commencing any construction activity in a federally maintained channel and/or waterway

10. Obstruction of Navigation. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work unreasonably obstructs the full and free use of navigable waters of the United States, the permittee shall, upon due notice from the Corps, remove, relocate, or alter the obstructions caused thereby, without expense to the United States. If the permittee fails to comply with the direction of the Corps, the District Engineer may restore the navigable capacity of the waterway, by contract or otherwise, and recover the cost thereof from the permittee.

11. Stability. The permittee shall design projects to be stable against the forces of flowing water, wave action, and the wake of passing vessels.

12. Maintenance. The permittee shall properly maintain all authorized structures, including maintenance necessary to ensure public safety.

13. Marking Structures. The permittee shall install and maintain any lights, signals, or other appropriate markers necessary to clearly designate the location of structures or work that might pose a hazard to public safety. Permittees shall abide by U.S. Coast Guard requirements concerning the marking of structures and work in navigable waters of the United States.

14. Endangered Species. This RGP does not authorize any activity that is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the ESA.

15. Essential Fish Habitat. This RGP does not authorize any activity that may adversely affect designated Essential Fish Habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act.

16. Historic Properties. This RGP does not authorize any activity that may affect historic properties listed, or eligible for listing, in the National Register of Historic Places (NRHP) until the provisions of 33 CFR 325, Appendix C, have been satisfied. Historic properties include prehistoric and historic archeological sites, and areas or structures of cultural interest. A prospective permittee must notify the District Engineer if the proposed activity may affect a historic property that is listed, eligible for listing, or may be eligible for listing in the NRHP, and shall not begin the activity until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. If a previously unknown historic property is encountered during work authorized by this RGP, the permittee shall immediately cease all ground activities in the immediate area, notify the Corps within 1 business day of discovery. The permittee shall perform any work required by the Corps in accordance with Section 106 of the National Historic Preservation Act and Corps regulations and avoid any further impact to the property until the District Engineer verifies that the requirements of 33 CFR Part 325, Appendix C, have been satisfied.

17. Wild and Scenic Rivers. No activity may occur in a component of the National Wild and Scenic River System or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status unless the appropriate federal agency (e.g. National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service), with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

18. Water Quality Standards. All activities authorized herein that involve a discharge of dredged or fill material into waters of the United States shall, at all times, remain consistent with all applicable water quality standards, effluent limitations and standards of performance, prohibitions, pretreatment standards, and management practices established pursuant to the Clean Water Act (P.L. 92-500; 86 Stat. 816) or pursuant to applicable State and local law.

19. Minimization of Environmental Impact. The permittee shall make every reasonable effort to conduct the authorized activities in a manner that minimizes the adverse impact of the work on water quality, fish and wildlife, and the natural environment, including adverse impacts to migratory waterfowl breeding areas, spawning areas, shellfish beds, and aquatic resource buffer zones.

20. Soil Erosion and Sediment Controls. The permittee shall use and maintain appropriate erosion and sediment controls in effective operating condition and permanently stabilize all exposed soil and

other fills, including any work below the ordinary high water mark or high tide line, at the earliest practicable date using native vegetation to the maximum extent practicable. The permittee shall remove all installed controls as soon as they are no longer needed to control erosion or sediment.

21. Equipment. The permittee shall place heavy equipment working in wetlands on mats, or take other appropriate measures to minimize soil disturbance.

22. Aquatic Life Movements. The permittee shall not substantially disrupt the necessary life-cycle movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the primary purpose of the activity is to temporarily impound water.

23. Management of Water Flows. To the maximum extent practicable, the activity must be designed to maintain downstream flow conditions. Furthermore, the activity shall not permanently restrict or impede the passage of normal or expected high flows. The permittee should limit the work conducted in waters of the United States to low- or no-flow periods.

24. Water Supply Intakes. The permittee shall ensure that activities authorized by this RGP have no more than a minimal adverse impact on public water supply intakes.

25. Practicable Alternatives. Activities authorized by this RGP shall be designed and constructed to avoid and minimize adverse impacts to waters of the United States to the extent practicable through the use of practicable alternatives.

26. Suitable Material. Any material or structure placed in waters of the United States, whether temporary or permanent, shall be free of toxic pollutants in toxic amounts.

27. Removal of Temporary Fills. Temporary fills must be removed in their entirety and the affected area returned to pre-construction contours.

28. Disposal of Excess Material. All construction debris and any other material not authorized by the Corps for permanent placement into waters of the United States shall be disposed of in an upland location in a manner that precludes it from entering waters of the United States.

Modification, suspension, or revocation of the RGP: This RGP may be modified or suspended in whole or in part if the Secretary of the Army or his authorized representative determines that the individual or cumulative impacts of work that would be authorized using this procedure are contrary to the public interest. Any such modification, suspension, or revocation shall become effective 30 days after the issuance of a public notice announcing such action. The final decision whether to modify, suspend, or revoke this permit, in whole or in part, shall be made pursuant to procedures prescribed by the Chief of Engineers. Following such revocation, any future activities heretofore authorized by this RGP will require alternate Department of the Army authorization.

The authorization of an individual project under this RGP may also be summarily modified, suspended, or revoked, in whole or in part, if the permittee either fails to abide by the terms and conditions of this permit or provides information that proves to be false, incomplete, or inaccurate, or upon a finding by the District Engineer that such action would be in the public interest. If a permittee's authorization is revoked, the permittee shall, upon notice of such revocation, without expense to the United States and in such time and manner as the Secretary of the Army or his authorized representative may direct, restore the waterway to its former condition. If the permittee fails to comply with the direction of the Secretary

of the Army or his authorized representative, the Secretary or his designee may restore the waterway to its former condition, by contract or otherwise, and recover the cost thereof from the permittee.

Expiration of the RGP: This permit shall become effective on the date of the signature of the District Engineer or his authorized representative and will automatically expire 5 years from that date unless the permit is modified, revoked, or extended prior to that date. Activities that have commenced (e.g., are under construction) or are under contract to commence in reliance upon this permit will remain authorized provided that the activity is completed within 1 year of the date of this permit's expiration, modification, or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

7 March 2005
Date

Michelle Walker for
DEBRA M. LEWIS
Colonel, Corps of Engineers
District Engineer

APPENDIX A

US Army Corps of Engineers ®
Seattle District

REGIONAL GENERAL PERMIT 3
APPLICATION FORM
For Construction of New or Modification of Existing Residential Overwater Structures and Drive Moorage Piling in Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal, in the State of Washington

Version March 7, 2005

TO BE COMPLETED BY THE CORPS
Corps Reference Number _____
☐ The proposed work meets all of the conditions of RGP 3.
☐ The proposed work does not meet all of the conditions of RGP 3. This form constitutes a Reference Biological Evaluation.
USFWS Reference: 1-3-04-PI-00560 NMFS Reference: 2004/00175

1. **Biological Evaluation:**
Biological Evaluation for Construction of New or Modification of Existing Residential Overwater Structures and Installation of Moorage Piling in Lake Washington, Lake Sammamish, the Sammamish River and Lake Union, Including the Lake Washington Ship Canal, in the State of Washington June 26, 2003. U.S. Army Corps of Engineers, Seattle District, Regulatory Branch.
2. **Date**: _____
3. **Applicant' Name**: _____
Address: _____
City: _____ State: _____ Zip: _____
4. **Agent' Name:** _____
Address: _____
City: _____ State: _____ Zip: _____
5. **Location(s) of Activity:**
Quarter Section: _____ Section: _____ Township: _____ Range: _____
Latitude: _____ Longitude: _____
Street address: _____
Waterbody: _____ County: _____
Names and Addresses of Adjacent Property Owners:
_____
_____
6. **Use type:** ☐ Private non-commercial ☐ Private Joint-use[a] non-commercial

[a] Joint use requires at least two contiguous residential waterfront property owners.

Name and address of joint-use property owner(s):

7. **Project description:**

8. **Construction techniques:**

a. Describe how the piling will be installed. Include the type of equipment, tools, and machinery to be used:

b. Describe how the pier, ramp, and float will be constructed, transported, and installed. Include the type of equipment, tools, and machinery to be used:

c. The number of days it will take to complete the project:

d. Describe the methods proposed to prevent construction debris from entering the water or causing water quality degradation:

Endangered Species Act (ESA) Information: Specific Project Information

Conservation Measures and Construction Specifications: In order to meet all ESA requirements for authorization under this Regional General Permit (RGP), all applicable Conservation Measures and Construction Specifications summarized below must be implemented. The entire text of the Conservation Measures and Construction Specifications are listed in the RGP document. Check each item that you agree to implement. Check each item "not applicable" if they do not apply to your project. For example, if you will not install piling, check "not applicable" next to the item listing the piling requirements. You must also complete the column on the right with your specific project information.

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Conservation Measure and Construction Specification	Specific Project Information
☐	☐	☐	Existing in-water and over-water structures (with the exception of bulkheads) with 30 feet of OHW, except for those facilitating access, shall be removed and no additional in-water structures shall be	Existing in-water and over-water structures that will be removed: _____

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Conservation Measure and Construction Specification	Specific Project Information
			constructed in this nearshore area over the entire length of the property.	
☐	☐	☐	Only piers and ramps can be within 30 feet of shore. All floats and ells must be at least 30 feet waterward of OHW.	
☐	☐	☐	Skirting: Skirting is not authorized by this RGP and any existing skirting must be removed.	
☐	☐	☐	New Piers: Surface coverage of pier must not exceed the following: a. Single property owner- 480 square feet b. Two property owners- 700 square feet c. Three or more property owners- 1000 square feet	size of proposed pier: _____ square feet
☐	☐	☐	Except for floats, the bottom of all structures must be at least 1.5 feet above OHW.	distance of bottom of pier from OHW
☐	☐	☐	Pier/walkway must be fully grated.	_____ % open area
☐	☐	☐	Pier/walkway must be no wider than 4 feet.	width of proposed pier: _____ feet
☐	☐	☐	Ramps must not exceed 3 feet in width and be fully grated.	width of proposed ramp: _____ feet
☐	☐	☐	Ells must not exceed than 6-foot wide by 20-foot long with a 2-foot wide strip of grating down the center OR 6-foot wide by 26-foot long and fully grated.	length of ell: _____ feet width of ell: _____ feet
☐	☐	☐	Finger ell must be no wider than 2-foot wide and no longer than 20-foot long and fully-grated.	length of ell: _____ feet width of ell: _____ feet
☐	☐	☐	Float width must not exceed 6 feet and the length cannot exceed 20 feet.	width of proposed float: _____ feet length of proposed float: _____ feet
☐	☐	☐	Floats must contain at least a two foot strip of grating down the center	
☐	☐	☐	All grating must have at least 60% open area.	Proposed grating has _____ % open area
☐	☐	☐	Piling: The first in-water set of piles shall be steel, 4-inch and at least 18-feet from OHW.	Type of material and size of first set of piling;
☐	☐	☐	Beyond the first set of piles, piles for a new pier must be spaced no closer than 20 feet apart and no greater than 12-inces in diameter.	Number of proposed piling supporting the new pier: _____ Size of piling beyond the first set: _____
☐	☐	☐	Piling beyond the first set: Replacement or proposed new piling can be steel, concrete, plastic or untreated or treated wood.	Type of material for piling: _____
☐	☐	☐	A maximum of 2 (two) moorage piling (or 4 for joint-use) may be	Number of proposed

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Conservation Measure and Construction Specification	Specific Project Information
			installed to accommodate the moorage of boats exceeding the length of the floats.	mooring piling: _____
☐	☐	☐	Moorage piling shall be at least 30-feet waterward of OHW and no further than 12 feet from the end of the pier.	Distance of piling from OHW:_____ Distance of piling from pier: _____
☐	☐	☐	If an impact hammer pile driver for steel piling is utilized, a sound attenuation device or system must be implemented during pile driving. Steel piling cannot exceed a 12-inch diameter.	Diameter of steel piling: _____ feet
☐	☐	☐	1. Piling with diameter of 10 inches or less – one Corps approved sound attenuation device is required	Type of sound attenuation device: _____
☐	☐	☐	2. For piling with a diameter greater than 10 inches, up to 12 inches, two Corps approved sound attenuation devices are required	Type of sound attenuation devices: _____
☐	☐	☐	Treated Wood: No creosote, pentachlorophenol, CCA, or comparably toxic compounds not approved for marine use, shall be used for any portion of the over water structure. ACZA treated wood must meet Post-Treatment Procedures.	If treated wood will be used, list type of treatment: _____ You must also submit certification that the wood was treated by the appropriate and approved Post Treatment Procedures before authorized work can commence.
☐	☐	☐	Invasive aquatic weeds are present and applicant will remove by non-chemical means.	
☐	☐	☐	Impact Reduction Measures: Applicant will plant emergent vegetation.	
☐	☐	☐	Impact Reduction Measures: Applicant will plant a ten-foot wide strip of vegetation along the entire of the shoreline (including shorelines of any joint-use applicants). A six-foot wide path through the vegetation is allowed for access to the pier.	
☐	☐	☐	Impact Reduction Plantings: The authorized species, number of plants, and correct spacing of plants will be utilized.	Attach planting plan.
☐	☐	☐	Impact Reduction Planting Performance Standards- The required performance standards will be met for the 5-year monitoring period: a. 100% survival of all trees and shrubs for the first two years. b. 100% of trees and 80% of shrubs must survive years 3-5.	
☐	☐	☐	Impact Reduction Reports: A status report on the project and mitigation, including as-built drawings, must be submitted to the Corps within 12 months from the date the Corps issues an RGP to the permittee. **P**lanting monitoring reports will be due annually for 5 years from the date.	
☐	☐	☐	Fish Work Windows: The required RGP fish work window will be met. Note: The RGP fish work window may be different than the HPA work window. For the work to be authorized by this RGP, the RGP fish work window must be met.	Fish work window at this project location is (per Corps' website): _____
☐	☐	☐	Bald Eagle Work Window: Required bald eagle work windows will be met, if applicable to the project location. General work prohibition times: January 1 through August 15 (nesting areas) November 1 through March 31 (wintering areas)	The required bald eagle work window at this project location will be determined by the Corps

I (We) Will Implement	I (We) Will Not Implement	Not Applicable	Conservation Measure and Construction Specification	Specific Project Information
☐	☐	☐	Work in the Dry: Work that disturbs the substrate, bank, or shore shall occur in the dry whenever practicable.	
☐	☐	☐	Operation of Equipment: Equipment shall be operated from the top of the bank, dry gravel bar, temporary work platform, barge, or similar out-of-water location.	
☐	☐	☐	Equipment shall be operated in a manner that minimizes suspended particulates from entering the water column.	
☐	☐	☐	All equipment used in or around waters shall be clean and inspected daily prior to use to ensure that the equipment has not fluid leaks. Any equipment that develops a leak shall be removed from the site immediately and not used again until it has been adequately repaired.	
☐	☐	☐	All General Conditions will be met.	
☐	☐	☐	A copy of this permit, permit drawings, mitigation planting plan, and final authorization letter shall be recorded with the Registrar of Deeds, within 60 days after final Corps authorization, to ensure that subsequent property owners are aware of the construction, use, and mitigation requirements. Proof of this must be provided to the Corps within 65 days after the date of the Corps' RGP verification letter to the permittee. **If the pier is joint use**, all co-applicants must voluntarily agree to build no additional overwater structures on their property, except for the maintenance or modification of the proposed joint use overwater structure. This voluntary agreement and the documentation described above must be recorded on the deeds of all involved properties. (General Condition 3)	

9. **Essential Fish Habitat, area affected (square footage of pier, ramp, and float):** _____

10. **Drawings:** Attach a vicinity map and project drawings (plan and elevation views required). Photographs are recommended.

11. **Planting plan:** Attach copy of planting, monitoring, and contingency plan for riparian area.

If the applicant has <u>checked "will not implement" for any of the above items</u>, then the following items must be completed by the applicant:

☐ You must attach a completed Coastal Zone Management form.

Note: This form can be found on the Corps' web page: www.nws.usace.army.mil/reg.html

☐ Based on the existing environmental conditions and the proposed work, the applicant is proposing additional impact reduction measures (beyond the requirements of Construction Specification 10) as described below: _____

List those Conservation Measures that will not be met by this project. Describe why they won't be met:

_____

_____

_____

_____

_____

APPLICATION IS HEREBY MADE FOR A PERMIT OR PERMITS TO AUTHORIZE THE ACTIVITIES DESCRIBED HEREIN. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, AND THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUCH INFORMATION IS TRUE, COMPLETE, AND ACCURATE. I FURTHER CERTIFY THAT I POSSESS THE AUTHORITY TO UNDERTAKE THE PROPOSED ACTIVITIES. I HEREBY GRANT TO THE AGENCIES TO WHICH THIS APPLICATION IS MADE, THE RIGHT TO ENTER THE ABOVE-DESCRIBED LOCATION TO INSPECT THE PROPOSED, IN-PROGRESS, OR COMPLETED WORK. I VOLUNTARILY AGREE TO MEET ALL REQUIREMENTS OF THIS RGP. I AGREE TO START WORK ONLY AFTER ALL NECESSARY PERMITS HAVE BEEN RECEIVED.

_____ _____

Signature of Applicant Date

_____ _____

Signature of Authorized Agent Date

_____ _____

Signature of Contractor (if Contractor is known) Date

APPENDIX B

Drawing Checklist

1. GENERAL

- ☐ Use clear black lettering and fewest number of sheets possible; use 8 ½- by 11-inch sheets
- ☐ State the purpose of the proposed or existing work
- ☐ List property owners and indicate number by number on plan view drawing
- ☐ Show datum used in plan and elevation drawings
- ☐ Use a graphic scale on all drawings
- ☐ Use a north arrow; prepare drawing with north being directed to the top of the page
- ☐ Label all proposed and existing work as such (e.g., Proposed Pier, Proposed Fill…)

2. TITLE BLOCK

☐ A completed title block (first example) must be on every sheet; for subsequent sheets you can use the abbreviated form (second example). All sheets will include the date and/or revision date.

PURPOSE: DATUM: ADJACENT PROPERTY OWNERS: 1. 2.	APPLICANT 2002- LOCATION ADDRESS	PROPOSED: IN: NEAR/AT: COUNTY: STATE: WA SHEET * OF * DATE:

Reference: 2002- Applicant: Proposed: At Washington Sheet * of * Date

3. VICINITY MAP

- ☐ Clearly show location of project (e.g., arrow, circle, etc.)
- ☐ List latitude, longitude, section, township, and range
- ☐ Name waterways
- ☐ Show roads, streets, and/or mileage to nearest town or city limits

4. PLAN VIEW

☐ Show shorelines:
Tidal: Show mean high water (MHW) line, mean higher high water (MHHW) line
Lakes or streams: Show the ordinary high water (OHW) line

- ☐ Show dimensions of proposed structures/fills; distance to property lines; encroachment beyond applicable shoreline; show wetland boundaries and specific impacts to wetlands
- ☐ Indicate location, quantity, and type of fill, if any
- ☐ Show all existing structures or fills on subject and adjacent properties
- ☐ Show direction of currents such as tidal ebb and flood
- ☐ Indicate adjacent property ownership

5. ELEVATION AND/OR SECTION VIEW

- ☐ Show shorelines, MHW line, MHHW line, OHW line, wetland boundary
- ☐ Show original and proposed elevations, water depths, dimensions of proposed structures or fills, and pertinent vertical dimensions to top and base of structure/fill; use the same vertical and horizontal scale, if possible
- ☐ Use equal horizontal and vertical scales on Section View. Do not skew vertical scale.

For Example Drawings: http://www.nws.usace.army.mil/PublicMenu/Menu.cfm?sitename=REG&pagename=Drawing_Samples

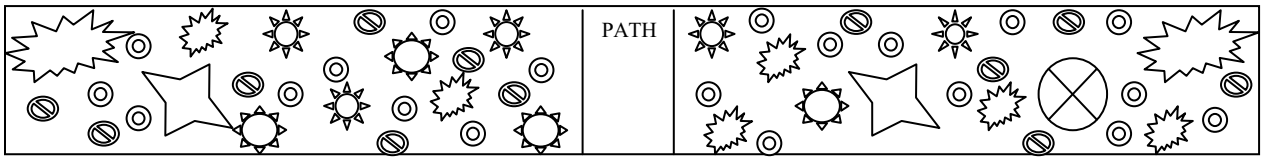
APPENDIX C

Below is a list of approved plant species and a sample planting plan. The applicant can suggest other species but the Corps must approve the species before work commences. Updates to this list may be found on the Corps website: *http://www.nws.usace.army.mil/reg.html*.

Common Name	Scientific Name
Willow spp.	
Sitka willow	*Salix sitchensis*
Souler willow	*S. scouleriana*
Sandbar willow	*S. exigua*
Pacific willow	*S. lasiandra*
Hooker willow	*S. hookeriana*
Conifers	
Douglas fir	*Pseudotsuga menzeisii*
Sitka spruce	*Picea sitchensis*
Shore pine or Lodgepole pine	*Pinus contorta*
Ponderosa pine	*Pinus ponderosa*
Grand fir	*Abies grandes*
Western hemlock	*Tsuga heterophylla*
Western red cedar	*Thuja plicata*
Other Trees	
Black cottonwood	*Populus trichocarpa*
Cascara	*Rhamnus purshiana*
Big leaf maple	*Acer macrophyllum*
Alnus rubra	*Red alder*
Birch species	*Betula spp.*
Pacific dogwood	*Cornus nuttalii*
Bitter cherry	*Prunus emarginata*
Large shrubs	
Red osier dogwood	*Cornus stolonifera*
Red flowering currant	*Ribes sanguineum*
Nootka rose	*Rosa nutkana*
Baldhip rose	*Rosa gymnocarpa*
Thimbleberry	*Rubus parviflorus*
Red elderberry	*Sambucus racemosa*
Vine maple	*Acer circinatum*
Western serviceberry	*Amelanchier alnifolia*
Ocean spray	*Holodiscus discolor*
Hazelnut	*Corylus americana*
Sweet gale	*Myrica gale*
Small shrubs/groundcover	
Salal	*Gaultheria shallon*
Oregon grape	*Berberis nervosa*
Black twinberry	*Lonicera involucrata*
Sword fern	*Polystichum munitum*
Snowberry	*Symphoricarpos albus*
Deer fern	*Blechnum spicant*
Emergent vegetation	
Hardstem bulrush	*Scirpus acutus*
Daggerleaf rush	*Juncus ensifolius*
Small fruited bulrush	*Scirpus microcarpus*

SAMPLE PLANTING PLAN

PLAN VIEW
Scale:
1 inch = 10 feet
10-foot wide by 65-foot long



LEGEND

TREE SPECIES

willow species, generally on 10-foot centers

conifer, generally on 10-foot centers

other tree, generally on 10-foot centers

SHRUB SPECIES

large shrub, generally on 4 to 7-foot centers

large shrub, generally on 4 to 7-foot centers

large shrub, generally on 4 to 7-foot centers

small shrub, generally on 1 to 4-foot centers

small shrub, generally on 1 to 4-foot centers

APPENDIX D

Status Report for Impact Reduction Construction - RGP-3

Within one (1) year of the date your permit was issued, submit this completed form to: U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington 98124-3755.

Corps' Reference Number: _____

Date the Corps Issued Your Permit: _____

Date this Report is Due: _____

Date Work was Completed: _____

Your Name: _____

Your Address: _____

Your City/State/Zip Code: _____

Your Phone Number: _____

You must attach to this form: ☒ As-built drawing(s) of planting areas (if installed), and
☒ Photographs of the mitigation area.

Describe impact reduction construction performed: _____

_____

If plantings were installed:

Conditions of your Corps permit require at least two trees be planted in each planting plot. The vegetation you plant must be taken from this list of native species found in Appendix C or you can suggest other species but the Corps must approve the species before planting commences. Shrubs should be planted at 3-feet-on-center intervals and trees should be planted at 10-feet-on-center intervals. Be sure to protect your plantings—fencing is recommended.

Name of Species You Planted	Number Planted
Total Planted:	

Native tree list: Populus trichocarpa, Pseudotsuga menziesii, Picea sitchensis, Pinus contorta
Native shrub list: Salix sitchensis, S. scouleriana, S. exigua, S. hookeriana, S. lasiandra, Cornus stolonifera
(See Appendix C for a more complete list of acceptable species)

I hereby certify that I have completed the work in compliance with the terms and conditions of this permit, including any project-specific conditions required by the District Engineer to ensure that this work would have no more than minimal adverse impact on the aquatic environment.

_____ _____
Signature of Permittee Date

_____ _____
Signature of Contractor Date

APPENDIX E
Mitigation Planting Monitoring Report for RGP - 3

Submit this completed form to: U.S. Army Corps of Engineers, Regulatory Branch, P.O. Box 3755, Seattle, WA 98124-3755. A completed form must be submitted 1, 2, 3, 4 and 5 years after the Corps accepts your as-built drawing of the mitigation planting area.

Corps' Verification Reference Number: _____

Date Your As-Builts Were Accepted by the Corps _____

Date This Report Is Due: _____

Your Name: _____

Your Address: _____

Your City/State/Zip Code: _____

Your Phone Number: _____

You must attach to this form: ☒ Photographs of the mitigation area taken within the last month.

Conditions of your Corps permit require 100% survival of all planted trees and shrubs during the first and second years after planting. During the third through fifth years after planting, 80% survival is required. Individual plants that die must be replaced with a species from the list below or you can suggest other species but the Corps must approve the species before planting commences. At least two trees must be planted in your mitigation area. You must protect your mitigation area—fencing is recommended.

Date of Inspection	Species name of Dead Plants	Number of Dead Plants	Name of Species Replanted	Number Replanted

Native tree list: *Populus trichocarpa, Pseudotsuga menziesii, Picea sitchensis, Pinus contorta*
Native shrub list: *Salix sitchensis, S. scouleriana, S. exigua, S. hookeriana, S. lasiandra, Cornus stolonifera*

APPENDIX F

Definitions

"Joint-use" piers, floats, and ramps are constructed by more than one contiguous residential waterfront property owner or by a homeowner's association.

"In-water structures" include wharves, walkways, piles, swim steps associated with a pier, boatlifts, and boathouses.

"Overwater structures" include piers, ramps, floats, and their associated structures. Associated structures include piling, chain and anchors for floats, ladders, steps, and swim steps.

"Skirting" is vertical boards along the edge of a pier extending downward.

The *"Ordinary High Water"* (OHW) mark or line is at an elevation of 21.8 feet for Lake Washington, Lake Union, and the Lake Washington Ship Canal (Corps of Engineers datum) and 27.0 for Lake Sammamish (National Geodetic Vertical Datum). For the Sammamish River connecting Lake Sammamish and Lake Washington, it is the visible line on the banks where the presence and action of waters are so common as to leave a mark upon the soil or vegetation. (Note: The State of Washington has a different definition of OHW).

The *footprint* of an overwater structure is the total surface area (square feet) of all the structure's components (e.g., pier, ramp and/or floats).

Heavy equipment includes but is not limited to bulldozers, pile drivers, aquatic construction equipment**,** back-end loaders, barges, jackhammers, and cement mixers.

A *Spill Prevention Control and Countermeasures Plan* (SPCC plan) is a comprehensive description of containment and countermeasures that would prevent an oil spill from occurring as well as procedures to respond to and clean up an oil spill that does occur. The Clean Water Act requires preparation of a SPCC plan by any facility that stores, transports, or handles oil and could reasonably be expected to discharge oil in a harmful quantity to navigable water.

From: Crusingal4@aol.com
Sent: Wednesday, May 21, 2008 2:30 PM
To: Stacy Clauson
Subject: Can't find the "comment form" online

I couldn't find where to go to get the online comment form per your postcard I received today.

I would like to say, PLEASE DREDGE Juanita Bay before we can walk all the way to Rose Point and beyond!!! It is sooo shallow.

Thank you,
Charlotte Jordan
9201 NE Juanita Dr
Kirkland, WA 98034

Shoreline Master Program Comments (response #5)From: City Webmaster [ironpointadmin@ci.kirkland.wa.us]
Sent: Friday, May 23, 2008 11:21 AM
To: Stacy Clauson
Subject: Shoreline Master Program Comments (response #5)

Shoreline Master Program Comments (response #5)
Survey Information
Site:City Website
Page Title:Shoreline Master Program Comments

URL:http://www.ci.kirkland.wa.us/dynamic/CM/WebUI/PageTypes/Survey/Survey.aspx?PageID=2403&PageMode=Preview
Submission Time/Date:5/23/2008 11:19:50 AM

Survey Response
Your contact information:
First Name:Doug
Last Name:Pascoe
Phone Number:
Email Address:pascoe.jd@verizon.net
Group (if any):
Address:1619 10th Street West
City:Kirkland
State:WA
Zip Code:98033
Your Comments
Comments:Recognize that LW is primarily a recreational lake and that it can never revert to 19C conditions without a moratorium on all development. Recognize the recreational aspect of the lake and adjust regulations accordingly. Recognize that bass fishing (predator fish) is an important activity and that providing further safe havens for salmonids (prey) will reduce that fishery. Regulations must provide for the needs of homeowners to allow reasonable installation and repair of bulkheads, docks and covered moorages (canopies) without excessive cost and difficulty. Simplify the permitting process. Costs now are exorbitant and time consuming. Grandfather existing shoreline structures (docks, moorages, canopies, etc.) and bulkheads to allow repair in-kind without excessive permitting. Establish and enforce noise levels on the lake. Loud stereos with booming base from boats, particularly in Juanita Bay are disturbing. Provide for clean and unpolluted water. Allow economical harvesting of milfoil. Think people first, fish second.

From: RLSTYLE [rlstyle@aol.com]
Sent: Friday, May 23, 2008 3:48 AM
To: Stacy Clauson
Subject: Shoreline suggestions

1. Why does the city's plans "need" to be changed? Who's decision was it?

2. The federal courts have ruled that property owners can protect their properties from storm damage and/or erosion. Has that provision been included in the proposed changes? If so, what is the permit process? It is not likely that erosion prevention can be accomplished during a storm. What justification will the city need to proactively prevent storm damage?

3. I extended my dock about 50 feet to accommodate my new boat. It took two years to get the permits and cost twice as much as the cost of construction. Many of the requirements could have been satisfied by using the information from other adjacent projects that were already approved. Many new inspections/requirements were unnecessary.

4. There are inconsistencies between public and private applications in what fish need to be protected and how to do it? How much shadow area is allowed from docks and how far from shore? The requirement of reducing or eliminating the shadow area close to shore was not required for public projects. When I moved here 22 years ago, there were plenty of fish under my dock. DOE required me to remove some of my dock to reduce the shadow area and install grating to allow more sunlight. Now, there are fewer fish. I'm not sure what they were trying to achieve. Reducing the shadow area generated by my dock was more of a negative impact than a positive one.

5. Almost all of Kirkland's shoreline is residential. Restoring vegetation on residential shorelines should not be a requirement and would be inconsistent with the land use.

6. Wave action erodes beaches whether generated by wind or boats. Property owners should be allowed to reduce the wave action in order to protect their property. If the city and marinas can do it, so should the citizens.

7. Which does more damage to shorelines, public access or private homes. I would suggest that if you want to protect shorelines, you limit public access. I may be wrong but if Lake Tahoe is an example, individual homes on properties zoned residential have fewer negative impacts on the environment than filling the shores with thousands of people.

8. Many jurisdictions control access to shorelines. Kirkland is not the only one. If access to the lake is to be regulated by Kirkland, I suggest it be done to protect the interest of the citizens who live in Kirkland. Drawing everyone to Kirkland's shorelines is not good for Kirkland's environment.

9. Public use of the shoreline should require mitigation measures on upland development and multifamily units. Fees should be required for non-residents to help pay for the impacts of all those people who use regional parks and shoreline facilities.

Sincerely,

Bob Style

Shoreline Master Program Comments (response #4)From: City Webmaster [ironpointadmin@ci.kirkland.wa.us]
Sent: Wednesday, May 21, 2008 3:53 PM
To: Stacy Clauson
Subject: Shoreline Master Program Comments (response #4)

Shoreline Master Program Comments (response #4)
Survey Information
Site:City Website
Page Title:Shoreline Master Program Comments

URL:http://www.ci.kirkland.wa.us/dynamic/CM/WebUI/PageTypes/Survey/Survey.aspx?PageID=2403&PageMode=Preview
Submission Time/Date:5/21/2008 3:53:08 PM

Survey Response
Your contact information:
First Name:Harold
Last Name:Forsen
Phone Number:425 803 2011
Email Address:hforsen@aol.com
Group (if any):Yarrow Shores Homeowners Association
Address:4427 Lake Washington Blvd. Unit 201
City:Kirkland
State:WA
Zip Code:98033
Your Comments
Comments:Eurasian Milfoil continues to be a problem in Yarrow Bay. When the lake lowers and the Milfoil is cut by power boats, it floats to the surface and is blown to shore by the prevailing winds. This collects on the shore and can promote the growth of alge and other problems including smell as it rots. Is there any plan by the City to try and do anything about this? We are told that communities in the other finger bays have been able to obtain grants to try and rid or reduce the growth of Milfoil. This subject deserves the attention of studies and activities within the Master Program.

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, July 02, 2008 10:51 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; rgrumbach@ci.medina.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY)
Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com
Subject: EASY TO ACCESS AND UNDERSTAND INFORMATION FOR CITIZENS IMPACTED BY THE SMP UPDATE PROCESS ON ALL GOVERNMENT WEBSITES

Categories: Red Category

Hi Mr. Paine, Mr. Reinert, SMP Update Points of Contact and Other Interested Parties,

Please forward this as official correspondence to all Boards, Commissions, Councils, Local Leaders, Planning and Land Use Staff, Community Citizens, and others involved in your SMP Update process.

All information on the SMP update process should be easily accessible and readable on all local websites. I was researching the King County and Bellevue websites regarding the SMP update process and discovered navigating to get information is overwhelming for the average person. The opportunity and encouragement for public attendance and involvement in the process is confusing, unclear or altogether missing. With all that is going on and the many meetings I have attended so far in about 8 communities it is clear that the vast majority of waterfront property owners are not being reached and the general public knows very little about the SMP updates and their impacts on any of the communities around Lakes Washington and Sammamish.

I ENCOURAGE EACH OF YOU TO ACCESS ANOTHER JURISDICTIONAL WEBSITE (OR MAYBE EVEN YOUR OWN) AND RESEARCH THE SAME SMP UPDATE INFORMATION THE PUBLIC IS EXPECTED TO FIND AND EVALUATE WHETHER IT IS EASY, UNDERSTANDABLE, AND REALLY SHOWS HOW PEOPLE WILL BE IMPACTED. YOU MAY WANT TO PLAN IT TOWARD THE END OF YOU WORK DAY.

The Corps RGP-3 is being presented as requirements rather than guidelines and local planning staffs and DOE may not realize that with the flexibility of the Corps permit process it was recently reported fact that less than 5% of projects submitted to and approved by the Corps for project on Lakes Washington and Sammamish met the Corps RGP-3 guidelines. This means that if the same development standards are adopted by local governments they will for all intents and purposes

restrict or remove reasonable and flexible land use rights from many property owners. This means that approximately 95% of the projects approved by the Corps since March 2005, many for redevelopment of existing structures resulting in vast improvements, will need to be referred to a Hearing Examiner and DOE through the variance process. This means more work, expense, and time for everyone, especially your staff and citizens.

This will be most devastating in the area of redevelopment and as we have learned through Bellevue's sliding development standards in on waterfront property owners through their CAO a couple years ago it meant that even when a person was making improvements they needed to jump through extra hoops and expense in the form a Critical Areas Land Use Permit. We have handled a few of these projects since this change and it had a negative and costly impact. It was adopted despite heavy attendance and strong comments in opposition at Planning Commission Meetings. If local governments yield to pressure from DOE to adopt the RGP-3 guidelines as development standards directly into their SMP it may result in people not replacing older, larger piers with smaller and better environmental structures or that a lot of projects will need to go through the Variance process only to be denied by DOE. It must be emphasized that this is even for projects with obvious and vast improvements over existing conditions, something that happens for all redevelopments we do. A successful SMP update should not result in additional variances or projects that cannot be approved through standard SDP or Shoreline Exemption processes or a handing over of your property owner's development rights to state or federal regulatory agencies. The current system of checks and balances has worked well, just check the numbers.

One strong point DOE is using and local communities are buying into is to make it look as though standardization is a good deal for property owners around the lakes by saying it results in a more streamlined permitting process. This is very misleading since the projects we have submitted through the nonconforming RGP-3 or the Letter of Permission processes, many of which exceed the guidelines of the RGP-3 or RGP-1, have been approved in the same or just a little longer amount of time. Many did not require Biological Evaluation but if that were a determining factor property owners would opt to pay and have it done in order to get their project approved.

I am asking all waterfront community staffs, boards, councils, commissions, and leaders to be as open and transparent as possible regarding their SMP updates and how it will impact their citizens' property rights and quality of life if the changes recommended by DOE are adopted. Waterfront property owners and others within the 200 foot shoreline areas should be encouraged by their local

government to get involved, even if this means challenging the process and refuting the methods and best but inconclusive science being used to drive these changes. Lake Washington and Lake Sammamish property owners should know that they are being specifically targeted because of where they have chosen to live and that these restrictions do not apply to property owners in other areas.

I have yet to see a local government website that approaches this from the position of the property owners they serve by making it user friendly. They are hard to navigate and find out information and the standards for piers and bulkheads are buried in a much larger document that people will probably not read, and there is little effort at changing this. While it is understood that people serving at the state and federal levels tend to be more disconnected from the people, I think most of our citizens feel people working with local governments have a sense of commitment, loyalty, protection and pride toward the local community and their citizens. It is much more personal at the local level.

Please make the information on the SMP Update, especially on your websites, clearer for people to understand. Spell it out for those who are going to be most impacted by any changes that may take place. I suggest the following approach on the city's website if you want to serve the public and make it look as though the city is actually reaching out to its citizens:

PLEASE SPELL THINGS OUT CLEARLY ON YOUR GOVERNMENT WEBSITE AND DO NOT BUSY IT UP WITH NEEDLESS REPORTS THAT PEOPLE WILL NOT READ. PLACE THE INFORMATION IN A CLEAR, EASY-TO-READ, HONEST AND UNDERSTANDABLE FORMAT SO PEOPLE KNOW WHAT IS GOING ON. PLACE FULL PAGE ADS IN LOCAL OR REGIONAL MEDIA TO REACH THE WIDEST NUMBER OF PEOPLE AS POSSIBLE. MOST SMP'S ARE 30 OR MORE YEARS OLD AND WHEN SOMETHING HAPPENS ONCE IN 30 OR MORE YEARS IT SHOULD BE GIVEN THE ATTENTION IT DESERVES. PEOPLE NEED TO KNOW THEIR LOCAL GOVERNMENT IS CONCERNED ABOUT THEM AND PROPERTY RIGHTS NEED TO BE PROTECTED. PLEASE SET YOURSELF APART FROM THE STATUS QUO AND STAND ON BEHALF OF YOUR CITIZENS.

An honest approach on your websites could be as simple as the following type of statements:
If you live within 200 feet or along the shorelines of Lake Washington or Lake Sammamish you will be impacted by upcoming changes to our city's Shoreline Master Program (SMP) as required by the WA Department of Ecology! Although SMP's must be updated throughout the state, those of you living along Lake Washington and Lake Sammamish will be impacted more than others. The following changes to new, replacement or the repair to residential docks and bulkheads are being recommended by DOE and considered by our local government. Then:

* List the RGP-3 guidelines for piers with a design of what a pier meeting those standards looks like (but also let people know they are flexible at the federal level and there are other

permit processes available for those who don't align but if adopted by the local government
they can only be approved by DOE through the very restrictive variance process)
* List the RGP-1 guidelines for boatlifts (but also let people know they are flexible at the
federal level and there are other permit processes available for those who don't align but if
adopted by the local government they can only be approved by DOE through the very restrictive variance process)
* Let citizens know that for replacement piers WA Department of Fish and Wildlife gives a
1:1 credit as long as the new pier is fully grated.
* List the recent position taken on bulkheads, the push for natural shorelines, what this
means to people, and the costs associated with reports required to justify constructing a
new or replacement bulkhead.
* Provide a few real life scenarios for people with existing piers who want to do extensive
repairs, modification. You may want to overlay a new design over a few of the larger existing
piers in your jurisdiction so people will understand what will happen if they want to modify,
relocate, or in some cases replace their dock). Giving people a visual example will help
them understand what is happening.

I am asking your local government consider the impact this will have on your waterfront property
owners, do some exhaustive research to see if the local, state and federal permit processes already
in place have worked to improve the shoreline environment and decrease the size of overwater
structures along Lake Washington and Lake Sammamish. I believe you will see that the results
have been measurable and as a result I am requesting that you reject adopting the Corps of
Engineers RGP-3 guidelines in part or whole into your SMP and allow for less restrictive but
reasonable and responsible standards for new development and redevelopment of piers, docks and
bulkheads in Lakes Washington and Sammamish. Combined with state and federal regulatory
oversight, I believe existing SMP's have accomplished this while allowing your property owners to
have individually designed to meet their specific moorage and lifestyle needs.

Thank you for your valuable time and attention to this very important matter.

On behalf of waterfront property owners, marine permitting and construction companies, and as a
private citizen of the State of Washington,

Dave Douglas

P.S.- At the request of several local planners, planning commission, city council, and citizens
advisory group members (to remain unnamed) who feel there should be flexible standards and
reviews, I have almost completed preparing a multiple-tiered process that you should at least review,
and hopefully consider to cover any type of project that may come your way. I will forward it when it

is completed over the next week or so.

THE IMPORTANCE OF THIS ISSUE CANNOT BE OVERCOMMUNICATED

From: Daved [Daved@waterfrontconstruction.com]
Sent: Thursday, July 31, 2008 9:30 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; rgrumbach@ci.medina.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan
Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com; Dennis Reynolds
Subject: ONGOING SHORELINE MASTER PROGRAM UPDATE PROCESS ISSUES, INFORMATION, CONCERNS AND CONSIDERATIONS

To Local Planners, SMP Update Points of Contact, Boards, Councils, Commissions, WA DOE, and
Other Interested Parties,

Please take time to read this entire e-mail and provide it to anyone involved with of having
influence over your local SMP update. A recommended process to consider for SDP, Shoreline Variance, and Redevelopment Processes is outlined below. Please make it a part of
your public record and available to your residents.

As the preliminaries finish up and the time for most local governments to develop specific
development standards for piers, bulkheads and other overwater structures quickly approaches, it is
also time for serious consideration of how the changes and restrictions you decide to place on
those most affected by your SMP Update will impact your community and your staff. Several of you
have expressed a desire to meet with those of us who do marine permitting and construction to
discuss practical and reasonable development standards and I hope this is still followed through on
behalf of your citizens. If after meeting with DOE over recent months you are considering adopting
the Corps RGP-3 guidelines or something similar I would urge against it. DOE has handsomely
crafted and steered the SMP update process by providing local governments on Lake Washington
and Lake Sammamish with limited and subjective information designed to force changes to your
Shoreline Master Programs, which combined with regulations from WDFW and the Corps of
Engineers are already working to limit the size of residential accessory structures. If you invest the
time to check recent projects approved with those approved, 5, 10, or 20 years ago you will see with
very few exceptions that structures are much smaller.

On April, 7, 2008, I sent an e-mail to Joe Burcar from DOE asking questions and requesting
clarification on “no net loss of ecological functions”, which DOE is using as a basic goal of the

updated SMP's although the Biological Evaluation for the RGP-3 was not completed to arrive at such a determination. Mr. Burcar referred the e-mail to his supervisor, Geoff Tallent, who said the questions would be referred to DOE's Legislative Department for a reply. I have sent several follow up messages to Mr. Tallent requesting an update and reply and have not received a response of the information although I was told I a couple months ago they were working on it. Each of you has received a copy of the e-mail so you can see the questions are reasonable and pertinent to the SMP update process.

If the basis for DOE requiring local governments to meet a "no net loss of ecological functions" is well researched and supported shouldn't this information be readily available at the office responsible for implementing the SMP update for the local governments on Lakes Washington and Sammamish? Why is it taking months for DOE to provide (and still waiting) the information to questions that the department must have anticipated would be brought up as they push sweeping changes specifically targeting the citizens of our state who have chosen to live along the shorelines in your communities? Is it possible DOE simply expected everyone to accept their agenda without question? An even better question is, "If we (a private company) were not asking DOE these questions would anyone from local planning or land use departments, city councils, boards, commissions, or private citizens ask"? Responsibility cannot be placed on the citizens who are paying local government staff to protect their interests and property rights and who should be asking DOE the tough questions. Your citizens justifiably expect you to question and challenge state and federal regulatory agencies overstepping their authority under the separation of powers and the self-governing authority given to local government.

This is a follow up of ongoing issues regarding the SMP Update process. DOE and Biological Consultants are clearly presenting or at least strongly impressing upon local planning staffs, councils, commissions and meeting attendees that the restrictive RGP-3 "guidelines" as "requirements" to achieve a "no net loss of ecological functions". If believed and embraced, this misleading characterization and unattainable goal in the case of new piers and some redevelopment projects may lead local governments on Lakes Washington and Sammamish to place overly restrictive, "everyone fit inside the box" type of regulations or standards in their updated SMP. Even if this position were to apply only to new structures it is problematic.

As I have tried to communicate at meetings, via e-mail and phone conversations, once these restrictive standards become a part of a SMP they are "law" and there is no flexibility for local governments to avoid forwarding them to DOE for what is likely to be denial through

the variance process. Let's face it, how would it look for DOE to approve projects they have told local governments not to allow? Most variance referrals would be due to overly restrictive regulations based on misinformation and best but inconclusive science targeting overwater structures and bulkheads. Local governments only have one shot at getting this right because there is no turning back. Local governments also have to balance their primary obligation to serving their residents and protecting the rights of their property owners with the pressure placed on them to satisfy DOE and avoid perceived lawsuits from the state. They are also placed in the vulnerable position of trusting that the information provided to them from the state is solid, truthful and conclusive.

Although Mr. Burcar and Mr. Tallent have stated DOE does not want to see more shoreline variance applications, the way in which DOE is going about steering the SMP update process sends a different message. The existence and numbers of regulatory agencies are dependent upon as much regulatory control as possible. State government isn't getting smaller and numbers are important for any business, including government. This reflects the opinion of the mainstream public and all the people I have worked for during the last 6+ years. Companies like ours bridge the gap between property owner and government agencies in laying out the permit process and explaining the reason for it. We are often placed on the defensive because of the over-regulating taking place but are successful at winning people's confidence as strong advocates with a balanced perspective. We do not need to agree with all of the policies or agencies to responsibly operate within and under the laws in place.

Geoff Tallent (DOE), who I appreciate receiving a phone call from, also stated that people want a streamlined permitting process with predictable reviews and standards. While we would agree in part, there was no information on what data if any was used to arrive at this conclusion, who the people are, or if it was presented in an objective manner. The real question is, "What will a streamlined permitting process based on standardization cost waterfront owners in the area of a loss of property rights"? This is rarely a concern from many government agencies but I recall one of the primary concerns from the legislature was protecting private property rights. If property owners are told they can have a streamlined permitting process but are not told what it will cost them in terms of pier size and design and restricted property rights then they are only being given half the story and far short of the truth.

Our position remains:
Local governments who adopt the Corps RGP-3 guidelines or any overly restrictive development standards for piers under their SMP will complicate their review

process,
refer more projects for shoreline variances to DOE that will likely be disapproved, face
unnecessary criticism from residents who are impacted by the changes, and cause an
undue burden and greatly restrict or take property rights from their waterfront property
owners. Based on local, state and federal reviews already in place by regulatory agencies
the need for sweeping changes to local SMP's are unwarranted.

I have attached a copy of a Shoreline Regulations by Jurisdiction matrix that we use as a quick
reference when prospective clients call. Because there are state and federal review processes in
place to balance things out, the local regulations have worked work very well on behalf of waterfront
property owners and local governments. The days of irresponsible development and huge piers and
platforms have been long gone even under the current SMP's due to the ESA and separation of
regulatory powers at the local, state and federal levels. While each agency has a distinct role to
play, it is accepted that WA Department of Fish and Wildlife, U. S. Army Corps of Engineers, U.S.
Fish and Wildlife, and NOAA-Fisheries, who employ a high percentage of biologists in their
regulatory departments, tend to exercise more flexibility and understanding than the very rigid and
inflexible reviewers at the WA Department of Ecology. Sweeping changes to local SMPs will likely
send additional projects to the Shoreline Hearings Board requiring more local, state and federal staff
time (at taxpayer expense), not to mention cost to property owners for lawyers, biologists and
consultants. This is unfair to property owners (expense and property rights), local staff (time and
expense), and all taxpayers (expense) who will cover the cost for local, state or federal employees
to conduct additional reviews and attend more meetings and hearings. Most government agencies
operate on tight budgets and several are short staffed so overly restrictive development standards in
a local SMP will only exacerbate the problem and delay reviews. Additionally, Lake Washington and
Lake Sammamish property owners appear to be facing restrictions not placed on any other property
owners in the state. Is this legal??

In a March 26, 2008 e-mail from Mr. Burcar (DOE), the following was written:
With respect to your concern about the use of standards such as the RGP applying to overwater
structures. We appreciate and acknowledge the need for allowing some flexibility in

design. However, we also have an obligation to meet no net loss and hear a very strong
call for clear standards, consistency between agencies, and streamlined permitting.

These do not have to be incompatible ideas. We see a way for SMP's to provide a streamlined path following specific standards and a more flexible path when the standards
don't fit the situation. It is important to note that with flexibility comes a potential
requirement for additional review criteria, standards or reports to ensuring no net

loss. I
also can appreciate your concerns related to potential barriers for redevelopment of

existing docks. Our goal would be to encourage a well crafted set of regulations
channeling the desire for the redevelopment of docks and piers into configurations
that
better serve the interests of the property owners and cause less environmental
impacts
when compared to existing structures. Again, the challenge is allowing enough
flexibility to
make this concept attractive to property owners, while still identifying clear
limits to inform analysis
of both the environmental benefits and impacts to ensuring no net loss.
End of excerpt.

The above statement clearly shows that a hard and fast set of development standards
is not
necessary but flexibility is a must. It is unknown where “a very strong call for
clear standards,
consistency between agencies, and streamlined permitting” is coming from. It may be
coming from
the agency itself. Most local governments have spoken proudly in defending their
autonomy and
control and in protecting the interests and rights of their citizens prior to the
SMP updates and I
haven’t witnessed a change in this posture from the smaller communities around the
lakes. Larger
city and county governments are separated, distant and impersonal and tend to lean
more toward
state and federal control over their citizens.

At this point, we should recall the following from a June 2004 DOE Publication
entitled,
“What Does No Net Loss Mean in the 2003 SMA Guidelines?” where it says the
guidelines
establish that the foundation of the “no net loss” requirement is the policy of the
SMA. This
publication states, “Thereby, to address all of these interests, the reasonable
policy is that
use and development that is appropriate and necessary is planned for and
accommodated
by assuring that the impacts of establishing uses or conducting development are
identified
and mitigated with a final result that is no worse than maintaining the current
level of
environmental resource productivity or “no net loss”. (Redevelopment or replacement
of a
pier with a more environmentally friendly structure, regardless of whether or not it
meets a
set of development standards would fulfill the policy requirement of the SMA and
therefore
should be an option available to property owners in protecting their individual
rights.)

If local governments are considering any use of the RGP-3 guidelines as a part of
their updates
SMP, it is recommended they be used only as a measuring tool for new development and
not a set
of hard and fast standards on new and redevelopment projects. Even though it may
seem a little
more complicated at first, maybe the best way to handle pier projects would be to
have varying

types of project specific reviews at the local level such as:

PIERS AND OVERWATER STRUCTURES

Type I Shoreline Substantial Development Permit:
New development (or redevelopment not qualifying under Type V below) meeting the guidelines of the RGP-3. These would receive a more “streamlined” review process at all levels of government. Although a very small (less than 5%) of Corps projects currently fall into this category, it may encourage additional property owners to do so. A copy of the RGP-3 application submitted to the Corps could be provided as reference to the local government (I do this currently). These projects would require a SDP, SEPA, HPA, CORPS RGP-3, and BLDG permits. These projects would not be referred to DOE for a shoreline variance.

Note 1: A Biological Evaluation would not be required for these projects since the Corps does not require one. A Reference Biological Evaluation completed by Jones & Stokes for such projects complying with the RGP-3 is available on the Corps website.

Note 2: RGP-3 permits from the Corps are actually classified as Letters of Permission but are reviewed under the guidelines of the RGP-3 so they are standard permits but with a more streamlined review and do not require Biological Evaluations.

Note 3: In the case of redevelopment a property owner would receive credit for the inwater (piles) and overwater (pier) structures being removed. This could be accomplished through a less extensive planting plan or lower review fees in recognition of the improvement. The Corps of Engineers and WDFW both work with property owners to agree on a planting plan that suits everyone and although DOE has recommended a 10’ wide planting strip for several years now it has always been a flexible policy. Removing this flexibility would only complicate the permit process, place undue burden on property owners and push many projects into a shoreline variance process. Most people are willing to install a reasonable native planting plan so having a requirement for a 10’ wide planting strip should not make or break a project or push it into the variance process.

Type II Shoreline Substantial Development Permit:
New development (or redevelopment not qualifying under Type 5 below) not meeting the guidelines of the RGP-3 but accepted and reviewed by the Corps as a nonconforming RGP-3. These would be reviewed locally on an individual basis for design, needs of the property owner, or other circumstances such as water depth, size of boat(s) needing moorage, access for disabled in wheelchairs (4 feet is not wide enough), or other things. If needed, additional but reasonable on site or other mitigation could be used to offset any additional impacts similar to what the Corps requests. The local government should be open to accepting the additional mitigation required by

the state or federal regulatory agencies so there is not an overlapping of mitigation requirements.
These could also be handled in a more streamlined manner. A copy of the RGP-3 application
submitted to the Corps could be provided as reference to the local government. These projects
would require a SDP, SEPA, HPA, CORPS RGP-3 (nonconforming), and BLDG permits. These

projects would not be referred to DOE for a shoreline variance.

Note 1: A Biological Evaluation would not be required for these projects since the Corps does not
require one. A Reference Biological Evaluation completed by Jones & Stokes for such projects is
available on the Corps website.

Note 2: RGP-3 permits from the Corps are actually classified as Letters of Permission but are
reviewed under the guidelines of the RGP-3 so they are standard permit but with a more streamlined
review and do not require Biological Evaluations. The wording on the Corps permit for nonconforming
RGP-3 projects reads the same as the Letter of Permission for a project that meets RGP-3
guidelines. The difference between the 2 (RGP-3 and Nonconforming RGP-3) is that the Corps has
exercised its regulatory flexibility to individually evaluate the project against the guidelines and was
required to forward the project to the federal services (NOAA-Fisheries and U. S. Fish and Wildlife
Service) for concurrence under the requirements of the ESA Section 7 Consultation. This means the
project takes a little longer (but not in all case) but is still much more streamlined than a project
that is much larger or complex than the RGP-3 guidelines recommend and must have a Biological
Evaluation prepared and be sent to the federal services for review in all cases. I have received
project approval in as little as 2 months and in 3 recent projects had the federal permits before the
local permit was received.

Note 3: In the case of redevelopment a property owner would receive credit for the inwater (piles)
and overwater (pier) structures being removed. This could be accomplished through a less extensive
planting plan or lower review fees in recognition of the improvement. The Corps of Engineers and
WDFW both work with property owners to agree on a planting plan that suits everyone and although
DOE has recommended a 10’ wide planting strip for several years now it has always been a flexible
policy. Removing this flexibility would only complicate the permit process, place undue burden on
property owners and push many projects into a shoreline variance process. Most people are willing
to install a reasonable native planting plan so having a requirement for a 10’ wide planting strip
should not make or break a project or push it into the variance process.

This would be the most common type of application since the vast majority of projects do not meet
the RGP-3 guidelines for a few common reasons. They are:

1) Size of single family pier exceeds 480s/f
This is a very restrictive size, especially when water depth is an issue or large boat moorage is needed. It also does not consider size of the property so a person with 50 feet of waterfront can get the same size pier as someone with 200 feet of waterfront but the one with 200 feet would need to offer more mitigation even though the impact is proportionately less.
2) Grating does not have 60% open area
This is not practical because there are no residential grating products available meeting this requirement. The best we can do is 43% for Thruflow and 50% for the more expensive and less comfortable IPE (iron wood).
3) First set of inwater piles are not 4" diameter.
In order to provide longer span between piles, 4" piles are not typically suitable to provide adequate support (lateral and sometimes horizontal) so we typically install a set of 6" diameter. In some case we are able to install a single 8" pile but only if the conditions are right. Often overlooked or not considered by regulatory agencies is that piers need to meet building code requirements for load capacity and often require engineering. The 6" or 8" piles helps us meet this requirement so we do not need to go back to the local government, Corps or WDFW to amend a project to increase pile size or number of piles after a project has been through the extensive permitting process.
This also helps us limit the number of piles in the nearshore area.
4) A 10' planting strip of native vegetation.
While most applicants are willing to plant some, even quite a lot of native vegetation, very few are willing to agree on a 10' wide planting strip across their entire property.
This is often inequitable for those with larger properties and on smaller properties with a compressed shoreline it can eliminate a lot of yard.
Typically, under the flexibility of the Corps RGP-3 review process and the WDFW HPA review we are able to offer an acceptable planting plan approved by state and federal agencies. If a 10' wide planting strip was to become required under a local SMP it would introduce a new element of review at the local level that is currently being administered effectively at the local and state level. There is no need to duplicate the process.

Note 4: A condition of the SDP and SEPA could require that copies of the HPA from WDFW and Section 10/404 Permit from the Corps of Engineers be required as part of the Building Permit application. Medina and a couple other local governments require this already. When the Building Permit application is back routed to Planning and Land Use to make sure the project aligns with what was approved by the SDP and SEPA review, the Planner would have proof in hand that those agencies responsible for protecting state and federally listed species and critical habitat under the Endangered Species Act have approved the project.

Type III Shoreline Substantial Development Permit:

New development (or redevelopment not qualifying under Type V below) that must be submitted to the Corps under the Letter of Permission or Individual Permit process due to it being larger or more complex to a point that it cannot be considered under the RGP-3 or nonconforming RGP-3. These would be reviewed locally on an individual basis for design, needs of the property owner, or other circumstances such as water depth, size of boat(s) needing moorage, access for disabled in wheelchairs (4 feet is not wide enough), or other issues. If needed, additional but reasonable on site or other mitigation could be used to offset any additional impacts similar to what the Corps requests. A Biological Evaluation would be required. These projects would require a SDP, SEPA, HPA, CORPS LOP, and BLDG permit. These projects would not be referred to DOE for a shoreline variance.

Note 1: A Biological Evaluation would be required for these projects since the Corps requires one. These projects must all be forwarded to the federal services (NOAA-Fisheries and U. S. Fish and Wildlife Service) for concurrence under the requirements of the ESA Section 7 Consultation. These projects take longer and in many cases involve back and forth negotiation between applicant and agency to offset assumed impacts.

Note 2: In the case of redevelopment a property owner would receive credit for the inwater (piles) and overwater (pier) structures being removed. This could be accomplished through a less extensive planting plan or lower review fees in recognition of the improvement. The Corps of Engineers and WDFW both work with property owners to agree on a planting plan that suits everyone and although DOE has recommended a 10’ wide planting strip for several years now it has always been a flexible policy. Removing this flexibility would only complicate the permit process, place undue burden on property owners and push many projects into a shoreline variance process. Most people are willing to install a reasonable native planting plan so having a requirement for a 10’ wide planting strip should not make or break a project or push it into the variance process.

Note 3: A condition of the SDP and SEPA could require that copies of the HPA from WDFW and Section 10/404 Permit from the Corps of Engineers be required as part of the Building Permit application. Medina and a couple other local governments require this already. When the Building Permit application is back routed to Planning and Land Use to make sure the project aligns with what was approved by the SDP and SEPA review, the Planner would have proof in hand that those agencies responsible for protecting state and federally listed species and critical habitat under the Endangered Species Act, have approved the project.

Type IV Shoreline Variance Permit:
New Development considered much larger than average projects within a jurisdiction and required

due to a specific need or restriction that will qualify it under the variance criteria. This type of project
and process would have specific issues and/or restrictions such as pier size, width or other
elements that are greater than 2 times the Corps RGP-3 guidelines, and/or which exceed local
limits on size, length or other zoning or code issues as currently done. All of these projects would
be referred to WA Dept of Ecology for a Variance.

The most common triggers for such projects would be:

1) Residential piers (1 owner) larger than 1,160s/f (2 times 480s/f)
2) Residential Joint-Use Piers (2 owners) larger than 1,400sf (2 times 700s/f)
3) Residential Joint-Use Piers (3 or more owners) larger than 2,000s/f (2 times
1,000s/f)
4) Walkways wider than 6’ (1.5 times 4’)
5) “ELLS” wider than 9’ (1.5 times 6’)
6) Piers that extend farther or in deeper water than what is allowed in the SMP or any
other element that would historically trigger a variance

These projects would require a SDP (WITH SHORELINE VARIANCE), SEPA, HPA, CORPS LOP, and BLDG permit. If needed, additional but reasonable on site or other mitigation could be used to
offset any additional impacts similar to what the Corps requests. A Biological Evaluation would be
required. These projects would be referred to DOE for a shoreline variance.

Note 1: A condition of the SDP and SEPA could require that copies of the HPA from WDFW and
Section 10/404 Permit from the Corps of Engineers be required as
part of the Building Permit application. Medina and a couple other local governments require this
already. When the Building Permit application is back routed to
Planning and Land Use to make sure the project aligns with what was approved by the SDP and
SEPA review, the Planner would have proof in hand that those
agencies responsible for protecting state and federally listed species and critical habitat under the
Endangered Species Act, have approved the project.

TOTALLY SEPARATE PROCESS FOR REDEVELOPMENT OF
STRUCTURES THAT MAKE ENVIRONMENTAL IMPROVEMENTS

Type V Redevelopment Shoreline Substantial Development Permit:
Replacement or Redevelopment of Existing Structures resulting in improvements over existing
conditions. With the number of existing piers on Lakes Washington and Sammamish this will likely
encompass the largest percentage of projects and the area where the most environmental
improvements can be made. These would be reviewed under totally separate criteria as the
strongest incentive for applicants to repair, replace or redevelop existing piers with more
environmentally friendly structures. I can’t think of a single repair, replacement or redevelopment
project we have done over the past 5+ years that did not result in measurable improvements over
the pre-existing conditions. Because DOE has stated that the baseline for each

project to assure a
‘no net loss’ of ecological functions should be site specific, this would give local reviewers the
flexibility to evaluate a proposed project using the existing structures as the review criteria without
coming under judgment from DOE. When improvements are made on a private property with each
project, it will contribute to the cumulative improvements throughout the local shoreline and the
entire lake system and serve as a win-win for everyone.

This review would be the most streamlined and if it does not result in an improvement using the
existing structure as the review criteria it would be classified under one of the review types listed
above. The chances of a redevelopment project not qualifying under this would be rare and would
only happen if someone wants to replace an existing structure with a larger structure.

Note 1: Because total replacement of an existing pier structure within the same footprint is
considered a common method of repair, many of these projects will qualify as exempt from SDP
and oftentimes SEPA. Because many of these will result in a decrease in overwater coverage, local
governments may want to consider exempting these projects from SDP and SEPA even if they are
relocated or reconfigured since neither a change in use nor a material expansion will actually occur.
Although some of the proposed structure may be located over new area it does not represent a
material expansion.

Note 2: A process like this would serve as the primary incentive for a person to replace or redevelop
their existing structure with a more environmentally friendly design and express a local
government’s commitment to protecting property rights and serving their residents while meeting the
goals of the SMA. This will also preserve local control and limit the number of projects being referred
to DOE for review under the overly stringent and impersonal variance process.

Note 3: Because sweeping changes to a SMP will push many existing legally conforming structures
into a legally non-conforming status, projects that qualify for SDP exemption or the Type 5 process,
and which result in clear improvements over existing conditions should also be exempted from
complying with WAC 173-27-080. This section requires that:

(7) A nonconforming structure which is moved any distance must be brought into conformance with the applicable master program and the act.

(8) If a nonconforming development is damaged to an extent not exceeding seventy-five percent of the replacement cost of the original development, it may be reconstructed to those configurations existing immediately prior to the time the development was damaged, provided that application is made for the permits necessary to restore the development within six months of the date the damage occurred, all permits are obtained and the restoration is completed within two years of
permit issuance.

Because redevelopment may involve relocation of a structure, compliance with these 2 stipulations would deter redevelopment because it would require total conformity to the SMP and fail to consider the improvements being made. In the case of total redevelopment, while it is reasonable that setbacks and other zoning elements be considered, requiring full conformity similar to new development would be unreasonable and discourage applicants. Total replacement or extensive repair of an existing pier is considered a common method of repair for a dock in the marine construction industry. This being the case, if most or all of an existing legally nonconforming pier is being replaced a requirement for conformity could be placed on the property owner even though it would not be relocated and would take place within the same footprint. These would normally fall under the exemption process but when a structure is considered nonconforming an exemption could be challenged or even denied.

Note 4: A condition of the SDP and SEPA could require that copies of the HPA from WDFW and Section 10/404 Permit from the Corps of Engineers be required as part of the Building Permit application. Medina and a couple other local governments require this already. When the Building Permit application is back routed to Planning and Land Use to make sure the project aligns with what was approved by the SDP and SEPA review, the Planner would have proof in hand that those agencies responsible for protecting state and federally listed species and critical habitat under the Endangered Species Act, have approved the project.

EVALUATING AND CONSIDERING THE ABOVE PROCESS OR ONE SIMILAR WILL ALLOW EACH GOVERNMENT TO:

* TAILOR THEIR LOCAL SMP IN A WAY THAT WILL ADDRESS NEARLY EVERY SITUATION WHILE MEETING DOE SMP UPDATE REQUIREMENTS,
* RETAIN LOCAL CONTROL, AUTONOMY AND A SEPARATION OF POWERS,
* ENCOURAGE RESIDENTS TO MAKE IMPROVEMENTS OVER EXISTING CONDITIONS BY HAVING A FLEXIBLE REVIEW PROCESS
* PREVENT DOE FROM OVEREXTENDING ITS AUTHORITY,
* RESPECT THOSE WDFW AND ARMY CORPS OF ENGINEERS REVIEW PROCESSES FOR THE PROTECTION OF STATE AND FEDERALLY LISTED SPECIES ALREADY IN PLACE AND WORKING EFFECTIVELY,
* AVOID DENIAL OR THE VARIANCE PROCESS FOR PROJECTS THAT HAVE DISCOUNTABLE OR INSIGNIFICANT IMPACTS OR RESULTING IN IMPROVEMENTS, AND MOST IMPORTANTLY,
* RESPECT THE RIGHTS AND OPPORTUNITIES OF PROPERTY OWNERS AND TAXPAYERS LIVING IN AREAS IMPACTED BY THE SMP UPDATE.

ALL OF THIS CAN BE ACCOMPLISHED WITH NO DETRIMENTAL IMPACTS ON THE RESOURCES OF THE STATE, NO IMPACT ON THE PUBLIC AND MEETING THE “NO NET LOSS OF ECOLOGICAL FUNCTIONS” GOAL OF THE SMA.

BULKHEADS

Because the redevelopment, replacement, repair or reconfiguration of many existing bulkheads can meet DOE’s definition of ‘no net loss of ecological functions’, disallowing bulkheads except in those rare circumstances where a geotechnical engineer has determined that one is

absolutely necessary, should be seriously examined. Because there is a trend toward allowing fill to be installed in the lake, there are many instances where softer battered (laid back) bulkheads can be installed in combination with nearshore fill and native plantings to provide excellent shallow nearshore habitat. Shifting bulkheads slightly landward, installing coved beaches with a portion of the shoreline, or total replacement of a bulkhead with a natural shoreline where possible are all improvements to the environment and likely meet DOE's goals. Although replacement of existing bulkheads with a natural shoreline are favored, failing to consider total or partial bulkhead replacements incorporated with other environmental improvements such as nearshore fill and planting plans would be a mistake and deter a lot of property owners from considering removal of a highly impacting structure.

Although the position and push of regulatory agencies and other environmentalists is for no new bulkheads and a demonstrated need for a replacement bulkhead (as listed in Lake Forest Park draft SMP), the opportunity to remove existing vertical, poorly constructed bulkheads and replace them with a battered (laid back), softer bulkhead will be missed. Referring to the DOE definition of 'no net loss of ecological functions', a vertical rock or concrete bulkhead replaced with a softer "laid back' rock bulkhead would clearly qualify, and could even be viewed as a 'net gain in ecological functions' with the installation of fill to provide ideal nearshore shallow habitat. For properties that have the right conditions, installation of a replacement bulkhead behind the footprint of the existing bulkhead and then removal of the existing bulkhead with installation of nearshore fill reflects improvement. Even though there is still a bulkhead in place, with agencies recently promoting the installation of nearshore fill as a positive environmental action, if the OHWL remains in its pre-construction location then the presence of a bulkhead behind that point would be discountable or insignificant. Depending upon the location, the same could be said if a bulkhead is replaced in its existing footprint but fill is installed to a point where the lake bottom is elevated to the OHWL waterward of the bulkhead. This solution, recommended by regulatory agencies themselves, brings the criticism of major repair or replacement of existing bulkhead and the construction of new bulkheads into question. Are bulkheads being unfairly targeted just because regulatory agencies and environmental groups do not like them? Can the solution for environmental concerns be addressed by placing equal or greater emphasis on the nearshore area waterward of bulkheads and the OHWL in many areas around the lakes? Is anyone in local government questioning the characterization of bulkheads being the main cause of impacts on fish and the lake's nearshore

area or has this information been accepted without challenge for fear of reprisal from other agencies
of peers and without alternate and less costly solutions?

Note 1: Similar to the multi-level process for piers above, a process for the replacement of
bulkheads could also be established to recognize partial removal and redevelopment of existing
bulkheads. This would encourage many property owners to consider partial or full coved beaches
and reestablishment of natural shorelines.

Note 2: On projects where a portion of an existing bulkhead is being retained or partially replaced in
conjunction with a new coved beach or natural shoreline, because the improvement over existing
conditions is obvious, a geotechnical report should be waived. A geotechnical report, which in many
cases includes soil borings using specialized equipment, can cost 3 to 5 thousand dollars or more.
This alone may discourage prospective applicants from considering improvements to their
shorelines and removal of portions of their bulkheads.

DREDGE AND FILL

Dredging
Making dredging a permitted use and not a conditional use should be strongly considered. Because
moorage slips in many areas can fill up with sediment and eliminate moorage, if dredging is difficult
to have approved, or even denied, the only alternative is to extend a pier to deeper water resulting in
additional overwater coverage. Making the dredging process more streamlined could be a great
benefit in people using what they already have rather than asking for more.

Fill
Because every bulkhead replacement or modification project involves the installation of nearshore fill
waterward of the OHWL, and the fact that the recent PBE from the Army Corps for Shoreline
Stabilization promotes and encourages nearshore fill waterward of the OHWL, making fill a
permitted use rather than a conditional use should be strongly considered. There may be some
properties where the installation of nearshore fill in and of itself will result in a ‘net gain in ecological
functions’ so making this process streamlined and simple would be beneficial.

As mentioned above, I am still waiting to receive a reply from an April 7, 2008 e-mail sent to DOE
regarding ‘no net loss of ecological functions’ and if it provides any additional information beneficial
to this process I will forward it to interested parties.

Thank you for your time and consideration on this very important and impacting issue. I believe
practical development standards, protection of property rights, a reasonable permitting process,
mutual respect and cooperation between property owners, contractors, permitting agents, local,

state and federal government agencies, and environmentally responsible construction design and
practices will benefit each of us while preserving those natural resources that benefit of us all.
I also believe this is an attainable goal if all parties are committed to working toward this end.

Sincerely,
Dave Douglas
Private Citizen and Permit Coordinator, Waterfront Construction, Inc.

From: Daved [Daved@waterfrontconstruction.com]
Sent: Friday, August 22, 2008 7:57 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan; Robert Grumbach
Subject: SMP UPDATES FOR LAKE WASHINGTON AND LAKE SAMMAMISH COMMUNITIES

Dear Local Planners, SMP Update Points of Contact, Boards, Councils, Commissions, WA DOE, and Other Interested Parties,

In an effort to keep the SMP Update process transparent and balanced and to distribute as much information to local governments as possible so they are fully aware of the many checks and balances already in place to protect the environment, listed species, and critical habitat, I am forwarding the e-mail below for your review. It was generated by some of the issues Bainbridge Island Shoreline Homeowners are experiencing with their local government and DOE. The Washington Supreme Court recently ruled against Bainbridge Island for trying to include shoreline areas in their Critical Areas Ordinance (under the GMA) rather than in their SMP (under the SMA).

Please note the list of improvements in number 5 below that neither DOE nor any of the biological consultants have discussed or credited to property owners and regulators. The combination of existing local SMP's along with state and federal guidelines work well and have resulted in vast improvements during recent years.

Thank you for using as many accurate and "real life" resources as possible in making crucial decisions for your SMP Updates. This will be even more important as you decide upon the actual development standards for docks, piers, boatlifts, moorage covers, and bulkheads. One of the main goals should be to assure that the SMP Updates protect individual property rights (a priority of the legislature) so no property owner has a legal basis to challenge and win subsequently overturning all local government SMP's on which you have worked so diligently.

We are available to meet with any local government regarding pier and bulkhead development standards and to provide examples of projects permitted on Lake Washington and Lake Sammamish since the RGP3 was implemented in 2005 and revised in 2007. Please contact me at 425-357-0312 if you are interested.

Below is the e-mail:

Hi All,

I have been trying to follow this issue pretty closely and have been in touch with Attorney Dennis Reynolds regarding what DOE is trying to force on local governments along Lake Washington (LW) and Lake Sammamish (LS). It appears Bainbridge Island is getting a lot of attention for one reason; They are not sitting back and taking it and many of the waterfront property owners are involved and speaking out against DOE's attempt at restricting or taking of property rights.

One important issue we must remember is although Whatcom County is a lot different in population, lifestyle, affluence, and boating preferences, if DOE can place their approved SMP in front of other jurisdictions hoping to win approval of their own update, it could help DOE to further push the Corps RGP3 guidelines on to local governments. Although we are making some progress and local governments along LW and LS are dialoguing and asking questions I still have deep concerns over the manner in which DOE is presenting several of the issues regarding 'no net loss of ecological functions' and the Corps RGP3 guidelines as requirements or standards that must be met in order to achieve the 'no net loss' goal.

Waterfront Construction has worked hard to become a highly regarded Marine Construction and Permitting Company. Local governments for the most part appreciate our knowledge of local, state and federal permitting guidelines and strong advocacy for their waterfront property owners. We work well within the guidelines and some land use and planning supervisors feel we have a better understanding than many of their planners and appreciate our diligence in design and project presentation. Local governments often refer people to us to address permitting questions beyond the local level and we enjoy a solid and respectful relationship. We are blessed to enjoy such a status so it is important that we continue our tradition of supporting waterfront property owners and local governments by making sure the SMP Update process is as transparent as possible and local governments are provided with as much information as possible before making crucial decisions and changes.

We have not received negative feedback from any local government or citizen as a result of our involvement in the SMP update process. We have received quite a few thanks and several have contacted us for further information and asked for help on the development standards for their SMP Update. As this important step draws closer we will find out how many seek our input. Unfortunately, DOE has not been as receptive but I was recently contacted by Mr. Peter Skowlund for a meeting with 3 DOE staff members to address my concerns outlined in an e-mail sent 4 months earlier on April 7, 2008. On August 12, 2008 I responded to Mr.
Skowlund requesting answers in writing on such an important issue and I have yet to receive acknowledgment or a reply to the e-mail or my questions regarding "no net loss of ecological functions'.

The main problems as I have witnessed over the past year of monitoring the process, attending SMP update meetings and communicating with local planners, councils, commissions, residents, contractors, environmentalists, and DOE are:

1) Although DOE has agreed there should be, there has been no talk of an alternative process for redevelopment of existing structures resulting in a 'net gain of ecological functions' over existing conditions if they do not align with the standards being pushed. The alternative process could encourage many property owners to replace huge piers with more smaller environmentally friendly piers that exceed RGP3 guidelines but would be approved by the Corps and WDFW as they have done routinely since early 2005 when the RGP3 was implemented.

2) If local LW and LS governments, at the urging of DOE, adopt the RGP3 guidelines as development standards under their updated SMP's it will place everyone in a box without consideration of individual needs or local government autonomy to manage their own shorelines. Nearly all projects that meet current SMP development standards for LW and LS local governments will need to go through a Variance process and be reviewed and approved by DOE. Local governments will be turning control of their shorelines and waterfront property owners within 200 feet of the shoreline over to

the state. If you have been through the Variance process you know it is very hard to get approval. DOE has said they do not want to see more Variances but their actions speak differently.

3) The RGP3 guidelines were established to arrive at a determination of "may affect, not likely to adversely affect" listed species and/or their critical habitat under the ESA. The Biological Evaluation (BE) completed to support the RGP3 was not designed to address or arrive at a 'no net loss of ecological functions' but the RGP3 is being used as a baseline to arrive at this conclusion. The RGP3 is a flexible, measuring tool for evaluating projects and impacts without the need to submit an Individual BE resulting in a more streamline process and saving the applicant costs. Unknown to local government is that since the RGP3 (and RGP6 for salt water projects) has been implemented, projects that have been submitted using the RGP3 Application but not complying with one or more of the guidelines (over 95% of projects according to the Corps) have been approved in nearly the same amount of time. Most of these projects exceeded several of the guidelines including pier width, ell width and length, total pier size, pile size, or other elements. Many of these were approved because they were replacement structures with vast improvements over the existing conditions and with few exceptions improved the shoreline through riparian plantings, nearshore fill for fish habitat, stepping back a bulkhead, or other means. In every case, and even in those instances where the Corps Letter of Permission or Individual Permit was used to permit larger projects, a "may affect, not likely to adversely affect listed species and/or their critical habitat" was declared. If DOE is trying to use the same guidelines to arrive at a 'no net loss of ecological functions', unless the Corps is approving projects that result in a "net loss of ecological functions' then each of the projects approved by the Corps would meet this same criteria.

4) Thus far, attendance at SMP Update, City Council and Planning Commission meetings has been sparse to say the least. With the exceptions of Lake Forest Park and one Seattle's and Kirkland's meetings there has been less than 15 people (including local staff, DOE and the biological consultant(s) in attendance, with an average of 1 or 2 property owners living in the 200 foot area impacted by the SMP update. This means that local SMP's under the direction of DOE will for the most part be discussed, formulated, drafted, reviewed and approved with little or no public input, especially from those who will be impacted most. In most cases this is not the fault of the local government but several contributing factors including, people are busy, one of many local issues, notification methods, not considered urgent, difficulty accessing SMP on local website and reading through multiple pages of material to try and find pier and bulkhead standards) , no real-life examples provided with proposed standards over existing structures so people can see the difference, and no threshold or requirement from DOE for measuring what is considered successful community involvement in the process.

5) There has also been no attempt by DOE to compare and contrast the LW and LS shorelines over recent years, particularly since 1998 and 2005 and present this information to local governments and the general public. They are pointing out what may be wrong rather than what has gone right and failed to credit property owners and local governments for the many improvements that have been made along their shorelines. As a result, it is unknown whether or not there have been improvements since the ESA and RGP3 have been in effect and combined with additional requirements from WDFW. DOE is using inconclusive "best available science" to make it appear that

all local SMPs are outdated and not working and are contributing to impacts on LW and LS.

A close look at current local SMP development standards combined with state and federal development guidelines for overwater structures and bulkheads permitted shows that:

a. Piers are generally smaller
b. There are less moorage covers
c. Light passing material is being installed on every deck surface
d. Smaller diameter steel piles with longer spans have replaced treated timber piles 10' apart
e. Mooring piles are used more often for large boat moorage rather than additional fingers or walkways
g. The bottom of piers are 18" above the OHWL to promote light
g. Walkways and ELLS are narrower
h. Boatlifts keep watercraft out of the water and limit shading
i. Riparian vegetation has been planted in mass
j. Bulkheads have been replaced in a fish friendly "laid back" design
k. Bulkheads have voluntarily been removed or relocated landward and replaced with partial or fully natural shorelines and coved beaches

l. Thousands of cubic yards of nearhore fill has been installed to provide shallow nearshore fish habitat along the shoreline of hundreds of properties

It is doubtful that these undocumented improvements will be seen or heard in any literature from DOE or environmental arm of our government but hopefully some local governments or citizens will ask the right questions. It would be difficult for DOE after beginning the update process in 2003, to step back and take this into consideration.

Issues surrounding bulkheads are equally important but time does not permit comment.

I reviewed the Whatcom County Draft SMP and noted on their website that DOE recommended some changes so I reviewed what appears to be the final approved SMP. It should be noted that the article in the Bainbridge Shoreline Homeowners newsletter and probably in the Bellingham Herald makes the following statement:

"New recreation piers along Lake Whatcom and other affected shores would have a maximum width of four feet instead of the current eight feet".

The statement may be misleading in that this may only apply to the main walkway. It is unclear what is meant by "pier" since some separate the meanings of float and pier. I have a call in to Whatcom County to clarify this because Section 23.100.09B(8)(a) states:

The width of piers, docks and floats shall be the minimum necessary and shall not exceed 4 feet in width, except where specific information on use patterns justifies a greater width. Marine floats shall not exceed 8 feet in width nor 40 feet in length and freshwater floats shall not exceed 6 feet in width and 20 feet in length unless authorized by a variance.

This means that a pier (float) may actually be 8 foot wide in saltwater and 6 foot wide in freshwater. The question is whether or not a fixed pile pier in a fresh water lake with very little fluctuation can have a 6' x 20' ELL or if they must have a float to get the additional overwatwer coverage. Since floats result in more shading than a fully grated fixed pile pier it would make sense to allow this.

Let's keep the communication lines open and hope the right people listen, local communities stand strong and ask questions on behalf of their citizens and unnecessary changes are not made based on inconclusive science and a failure to recognize improvements already made through a process that already works.

Thanks,

Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

-----Original Message-----
From: Keith
Sent: Wednesday, August 20, 2008 1:54 PM
To: Steve; Daved; Derek Jennings
Subject: FW: Bainbridge Shoreline Homeowners

The link below is quite interesting. If an error shows up, you can still click on the items on the side bar to the right and view the documents.
Keith

-----Original Message-----
From: Richard Agnew [mailto:raa@vnf.com]
Sent: Tuesday, August 05, 2008 5:09 PM
To: Mary Lyn Kappert; David King; Greg Piantanida; Richard Sandaas; Marina Hench; Greg Ashley; Ramona Monroe; Sean O'Neill; Eric Van; Keith
Subject: Re: Bainbridge Shoreline Homeowners

This is very well done, and well stated.

>>> "Richard Sandaas" <eride@msn.com> 8/1/2008 1:31:06 PM >>>
Greetings:
Below is a link which has extensive information about what is going on at Bainbridge Island. Within this site there are numerous links which provide additional background. All of it is worth reading.
Dick S.

http://bainbridgeshorelinehomeowners.wordpress.com/<http://bainbridgeshorelinehomeowners.wordpress.com/>

Richard K. Sandaas
12453 Holmes Point Drive
Kirkland, WA 98034
425 823 2145

September 15, 2008

Planning Commission
City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033

Reference: Kirkland's Shoreline Master Program Update

This is the fifth comment letter I have prepared on materials being considered by the Planning Commission in the update process for Kirkland's Shoreline Master Program.

The most recent materials posted on the SMP update web site pose some serious issues for shoreline property owners as well as citizens and taxpayers of Kirkland. Attached are a set of comments on these specific issues.

I am submitting these comments from a perspective as a long time shoreline property owner and as the Chair of the Shoreline Property Owners and Contractors Association, SPOCA, of which membership and supporters include a number of Market Neighborhood and Lake Street South shoreline property owners.

Shoreline property owners have a vital interest in the protection and enhancement of our shorelines and the ecology of our waters. We want to work toward feasible, flexible, and effective goals and policies that can achieve those ends.

Very truly yours,

Richard K. Sandaas
Chair, SPOCA
Shoreline property owner

cc: Planning Department Staff

KIRKLAND SMP UPDATE PROCESS

COMMENTS FOR
SEPTEMBER 11, 2008 PLANNING COMMISSION MEETING

Materials have recently been posted on Kirkland's SMP web site in preparation for the September 11, 2008 Planning Commission Meeting, a total of 359 pages. Numerous documents have been released previously including draft Policies and Goals. I have submitted four separate comment letters on these materials beginning in 2006. The comments that follow raise issues that continue to be of concern and have not been addressed or resolved to date.

COST AND BENEFITS

The implementation of these policies and related regulations will trigger millions of dollars of public and private expenditures for shoreline changes including bulkhead removal, lawn removal, extensive landscaping, and pier removal and modifications.

No cost estimates or cost benefit analyses are provided which is contrary to what is stated in Goal SMP-5. This goal, ENSURE PROPERTY RIGHTS ARE RESPECTED states, "…the City should be careful to consider the public and private interests as well as the long term costs and benefits." I have raised this point in all my previous comment letters but to date none of the documents deal with this important issue.

HOW WILL THE CITY'S RESPONSES TO THESE POLICIES AND REGULATIONS BE FINANCED FOR CITY OWNED SHORELINE?

The City of Kirkland is the largest shoreline property owner. These policies and regulations will require extensive shoreline restoration including removing of bulkheads, removal of lawns, installation of shoreline vegetation, and modification of piers. The city is facing deficits in carrying out its existing responsibilities. How will these additional costs be financed?

IMPLEMENTATION OF THESE POLICIES AND REGULATIONS WILL RESTRICT ACCESS AND ALTER USABILITY OF CITY SHORELINE PARKS.

Shoreline landscaping and removal of lawns in city parks will significantly alter the access and use of shoreline parks. Will park users accept these changes and will they support additional taxes to fund them?

THERE CONTINUTES TO BE A LACK OF RECOGNITION OF THE UNIQUE GEOGRAPHICAL CONDITION OF KIRKLAND'S SHORELINE

The Market Neighborhood and Lake Street South shoreline cannot accommodate these policies and resultant regulations. Shallow lots, exposure to wind waves and boat wakes, and the western exposure will make the intended objectives of bulkhead removal and shoreline restoration impossible to achieve. The available area of shoreline yards will be reduced to a size that would significantly reduce their usefulness for recreation. Shoreline landscaping will not provide shade. Shoreline erosion will become a major concern, reducing land area and threatening the City-owned sewer interceptors along the shoreline.

THE GRAPHIC EXAMPLES DO NOT APPLY TO THE MARKET NEIGHBORHOOD SHORELINE

The Watershed Company has developed a number of graphics showing shoreline vegetation and alternatives to shoreline armoring. The examples show photos of shoreline modifications in Bellevue where the depth of the property far exceeds that of the Market Neighborhood and Lake Street South shoreline and does not experience the exposure to storm waves and boat wakes. This was pointed out at an earlier Planning Commission meeting prior to the June open house. However these graphics were used at that open house which erroneously portrays the applicability of these modifications to the Market Neighborhood shoreline. The Market Neighborhood and Lake Street South shoreline and the shoreline shown in The Watershed Company's graphics are affected very differently by the raising and lowering of Lake Washington each year and the wind wave and boat wake action.

STORMWATER RUNOFF AND NON-POINT POLLUTION ARE THE MAJOR THREATS TO WATER QUALITY AND SHORELINE HABITAT.

The WRIA8 strategy states: …"softening or removal of bulkheads is the most important action to improve shoreline habitat". This is incorrect. Storm water runoff and non-point pollution are the major threats and should be addressed as the highest priority. SMP 15-2 states …"Lake Washington is considered at risk from chemical contamination from hydrocarbon input from the urbanized watershed." Significantly greater impervious surfaces are a result of the higher densities coming out of the Growth Management Act. Where one home formerly existed now several are built on the same lot. This has occurred in many locations in the upland Market Neighborhood and their runoff discharges into Juanita

Bay wetlands. Two examples of these developments are found half a block up the hill from Forbes Creek Drive on Market Street. Additionally,

the recent decision by the State Pollution Control Board to require Low Impact Development techniques puts a much higher priority on dealing with this issue.

THE POLICIES AND GOALS DO NOT REFLECT THE REQUIREMENTS OF RCW 90.58.100 FOR INSURING AGAINST UNNECESSARY HARDSHIPS OR FOR PROTECTION OF SINGLE FAMILY RESIDENCES.

RCW 90.58.100 states the following:
(1)(h)(5) Each master program shall contain provisions…to ensure that strict implementation of a program will not create unnecessary hardships.
(1)(h)(6) Each master program shall contain standards governing the protection of single family residences and appurtenant structures against damage or loss due to shoreline erosion.
The policies and goals leading to the revised SMP do not reflect these requirements.

THE "SIGNIFICANT REDEVELOPMENT TRIGGER" COULD RESULT IN REQUIRING SHORELINE RESTORATION AS A CONDITION FOR ALL BUILDING PERMITS FOR UPLAND DEVELOPMENT.

These policies call for bulkhead removal with a permit application constituting 50% of the replacement cost of the upland development. Minor additions are also mentioned as a trigger. Additional requirements are lawn removal and installation of shoreline landscaping on half of the shore side yard. Not only does this impose a significant financial burden on the homeowner, it also radically changes the configuration and use of the shore side yard.

THE REDUCTION OF LAND ASSESSMENTS THROUGH THE PUBLIC BENEFIT RATING SYSTEM AS AN INCENTIVE IS QUESTIONABLE.

A financial incentive through the use of the PBRS is questionable. None of the 20 qualifying resources appear to be relevant to Kirkland's urban shoreline. The intent of this system is for open space resources and the shoreline designations are either "conservancy environment" or "natural environments", neither of which apply to Kirkland's urban shoreline.

THESE POLICIES AND REGULATIONS HAVE THE POTENTIAL FOR REDUCING SHORELINE PROPERTY VALUE.

When facing $100,000 and more in costs for bulkhead removal, lawn removal, and shoreline landscaping as a requirement for an upland building permit, a

purchaser would likely factor that into a reduced purchase offer. An additional discount could come from the reduced usability of the shore side yard and from the potential impacts from erosion.

SHORELINE PROPERTY OWNERS ARE BEING UNFAIRLY TARGETED IN THESE POLICIES.

Storm water runoff and pollution from upland sources are not being addressed as compared to the restrictions placed on shoreline owners. Upland impacts are far greater in aggregate.

THE POLICIES PROHIBIT HERBICIDE TREATMENT OF AQUATAIC NOXIOUS WEEDS.

Despite demonstrated effectiveness, herbicide treatment is prohibited in these policies (pages 29 and 30). They call for proof that no reasonable alternative exists, despite documentation of various treatments attempted in Portage Bay over the last ten years. Kirkland would require a vegetation and management plan and an extensive and expensive bureaucratic process precedent to allowing herbicide treatment. This policy is apparently based on emotional reaction by uninformed public comments, not a scientific basis, as evidenced by the statement, "some people may have strong feelings against using chemicals in water".

THE WASHINGTON TOXICS COALITION PAMPHLET (ATTACHMENT 24) IS MISLEADING AND ERRONEOUS

The Washington Toxics Coalition (WTC) was unsuccessful in its appeal of the Department of Ecology's permitting of herbicide control of invasive aquatic plants. WTC provided no scientific basis to support their appeal. This pamphlet continues that approach. Its graphics show three stacks emitting smoke and next to it a person in a moonsuit holding a spraying device. The text then goes on to confuse pesticides with herbicides. All this in their effort to discredit the permitted use of herbicides. WTC presents no solution to the problem, they only propose more discussion to find options. The options are well known. Many options such as

harvesting cause increased growth of milfoil. The DOE permitted herbicide applications are known to be effective and safe.

THE PUBLIC INVOLVEMENT APPROACH LACKS PARTICIPATION BY SHORELINE PROPERTY OWNERS AND THE TIME LIMITS THWART PUBLIC TESTIMONY.

Shoreline property owners have not been well represented in the SMP process to date. Those who have been involved have been trumped by the interests of others. The resulting policies, goals and other documents do not reflect a concern for property rights. As written, they will impose significant burdens on shoreline property owners. An extra effort should be made to hold a workshop for Kirkland shoreline property owners with an in-depth explanation of the policies and regulations. Next a follow up meeting should be held for responses and comments, unconstrained by time limits for testimony.

The facilitated public meetings using the "Post-It Process" has not provided a forum for public testimony nor has the three minute time limit imposed by the Planning Commission.

Prepared by:
Richard K. Sandaas
12453 Holmes Point Drive
Kirkland, WA 98034
September 15, 2008

From: Daved [mailto:Daved@waterfrontconstruction.com]
Sent: Thursday, September 18, 2008 11:09 AM
To: Stacy Clauson
Subject: RE: Notice of Planning Commission Meeting - City of Kirkland Shoreline Master Program Update

Thanks Stacy,

The most important thing is that the city does not forbid new, replacement or major and minor repair to bulkheads outright. If there is a single family residence on the property they are categorically exempt under the WAC if it can be proven it is needed for protection. It is also important to understand that not every property qualifies for bulkhead removal and no one can remove an existing bulkhead without causing problems for neighboring bulkheads. Property owners must be allowed to keep or replace bulkheads at each end in order to avoid erosion. We do a lot of this by installing coves and upland rockeries in the middle of the property. The deeper the water at the face of the bulkhead the less likely it can be replaced. It is also important that nearshore fill be allowed up to the OHWL (21.80') so the OHWL is not shifted landward resulting in decreased land area which could trigger other problems with the residence including but not limited to Maximum Impervious Surface.

Making people pay to have a geotechnical engineer conduct a survey to allow them to retain, replace, or repair an existing bulkhead seems very extreme although it may be unavoidable. If property owners were to have local, state or federal regulators evaluate whether or not it is needed it is more than likely they would make it more difficult. A geotechnical report will most likely require borings to evaluate soils and predict erosion rates and could cost 3K to 5K. If people do provide a geotechnical report that supports a bulkhead it is vital that it be accepted and supported. For new bulkheads, maybe an experienced planner could make the call on erosion problems at a site but that would be a hit or miss depending on the planner's qualifications.

None of these issues are as cut and dry as they are being presented by the state and feds. There is a lot of controversial and conflicting information out there on bulkheads and whether or not they have the substantial impact on fish that agencies would like everyone to think.

Thanks,
Dave Douglas

ATTACHMENT 30A

Teresa Swan

From: WWassmer@aol.com
Sent: Thursday, September 18, 2008 9:17 AM
To: Teresa Swan
Subject: Shoeline Master Plan - Juanita Bay
Follow Up Flag: Follow up
Flag Status: Red

Ms Teresa Swan

I have read the October 9th meeting schedule and the three part Master Shoreline report on line but I do not see anything about the increased shoaling in Juanita Bay and the Juanita Bay Beach Park.

The entire Juanita Bay is now less than 10 feet deep all the way across from north to south (you can walk across the bay in winter when Lake Washington water level is lowered). This is allowing sunlight to penetrate to the bottom of the bay and stimulating the growth of aquatic plants and noxious weeds are turning Juanita Bay into a stagnant fish and wildlife DEAD ZONE. Sunlight does not reach the bottom in over 15 feet or water. We are now looking at acres of raised bay bottom that is perfect for growing aquatic plants.

Over the last 15 to 20 years there has been continual development up Juanita Creek (in King County) and the sediment, sand, and mud from that development has been washing into the Juanita Bay basin Spring, Summer, Fall and Winter for over 2 decades...

What are the plans to remove the sand and gravel from the bottom of Juanita Bay and the Juanita Creek Basin that these developments have been allowed to wash into Juanita Beach Park and Juanita Bay? They are never mentioned in the reports?

What is the plan to restore Juanita Bay to its historic depths so that fish and wildlife are not swimming in a choked off stagnant arm of Lake Washington?

I fail to see where, in any of these prepared reports this problem is addressed? What is the BIG picture of Juanita Bay water quality?

As I recall the levels of fecal chloroform are exceeded every summer for the past 10 to 15 years closing the Juanita Beach Park to public swimming in August and or September and the swamp like conditions are continually expanding in Juanita Bay making the bay an unusable shallow, mud pit.

Just looking at the shoreline from when the original walk around dock (promenade) around the Juanita Beach Park swimming area was build you can accurately measure the amount of sand and mud that has been added just to the Juanita Beach Park shoreline! I would estimate it is a good 100 feet of added sediment.

What are the plans for resorting water flow and depth and water quality for Juanita Bay? When will this be addressed?

Bill Wassmer
206-898-2999
9025 N. E. Juanita Drive
Kirkland, WA 98034
Resident since 1989

ATTACHMENT 30A

Pssst...Have you heard the news? There's a new fashion blog, plus the latest fall trends and hair styles at StyleList.com.

Teresa Swan

From: WWassmer@aol.com
Sent: Thursday, September 25, 2008 8:12 AM
To: Teresa Swan
Subject: Shoreline Master Plan - Juanita Bay Sediment

Dear Ms. Swan

Thank you for the return email and the copies of pages 34 and 35 of the City's Final Shoreline Analysis Report section 4.2.4

I am in a 100% in agreement with you that KING COUNTY allowed all of the upstream development that allowed all this sediment to enter Juanita Creek and be washed down into Juanita Bay.

Maybe the City of Kirkland should formally hold KING COUNTY responsible with the threat of a lawsuit against KING COUNTY and ask for cash or in kind labor/equipment reimbursement to the City of Kirkland so the City could get the entire job done.

I have copied the six bullet points of the report with regards to Juanita Bay sedimentation below:

- "dredge the delta to a depth of 3-5 feet;
- dredge up fine sediment at the beach;
- implement maintenance dredging at delta to remove sediment every few years;
- remove the planking on the piers to allow natural sediment movement in the bay;
- implement sediment detention and removal in the creek basin to reduce sediment load into the lake; [and]
- reduce sources of sediment into the basin."

Successful management of the sedimentation problem will require implementation of several of the remedies. However, the potential short-term effects of the various in-lake sediment removal options need to be evaluated before action is taken. Funding is not yet available to implement the first four elements of the *Juanita Beach Park Master Plan*. The City of Kirkland has several projects planned for 2007 in its Capital Improvement Program that address the last two bullets.

Please take note that the first three bullet points all contain the word DREDGE.....

No amount of Master Shoreline Plan rules for home owners along Juanita Bay is going to fix the current sedimentation in Juanita Bay.

The complete choking of water flow in Juanita Bay with over grown aquatic plants is allowing predators of juvenile salomon frey to be eaten immediately upon entering Juanita Bay after hatching and leaving Juanita Creek. It is being directly caused by the shallow bay bottom that allows sunlight to reach the bottom and milfoil and other noxious weeds are overgrown on the bottom of the bay. The report attempts to suggest that changes to the decking of the Juanita Beach Park Boardwalk will fix this is just plain foolish.

We are talking about acres and acres of sediment here that has substantially changed the entire character of Juanita Bay's water fowl, fish and water flow.

Here is an idea....In January and February of every year (just 4 or 5 months away) the Army Corps of Engineers drops the water level of the Lake Washington to its lowest level of the year. Why not use this lowered level as an opportunity?

Here is an idea.....Use bulldozers backing into the lake and pushing up the sedimentation onto the shore of the Juanita Beach Park beach and then using City of Kirkland dump trucks or better yet KING COUNTY equipment to remove the sediment that has been pushed up on the shore in a much cheaper fix then trying to get a complete dredge operation going.

Doing this every January and/or February would cause a low point to be established near the Juanita Beach Park beach and the sedimentation in the bay would naturally flow to fill that low point every Spring and Fall storm season. Over the period of several years tons and tons of sedimentation could be removed from Juanita Bay with NO formal dredging. Problem solved at 25% of the cost.

Just how does the City of Kirkland plan on getting the Juanita Bay sedimentation removed and restoring Juanita Bay to its historic depths before KING COUNTY started giving out building and development permits? Is there any plan?

If this is a major problem why is it not addressed in the Shoreline Master Program? This is going to have to be fixed in the near future and how to fix this sedimentation must be a written part of any Shoreline Master Program. Otherwise the fecal chloroform and pollution will only build with the coming years and Juanita Bay will turn into a weed filled swamp.

Bill Wassmer
9025 N. E. Juanita Drive
Kirkland, WA 98034

In a message dated 9/22/2008 4:12:06 P.M. Eastern Daylight Time, TSwan@ci.kirkland.wa.us writes:

> Hello Mr. Wassmer:
>
> Thank you for your email and your involvement in the Shoreline Master Program update. The City agrees with your concerns about water quality and the fish habitat in Juanita Bay.
>
> Attached are pages 34 and 35 of the City's **Final Shoreline Analysis Report,** dated December 1, 2006 that contains a discussion about sedimentation in Juanita Bay. The entire report is available on the City's website in the Planning Department page under updates to codes and plans, Shoreline Master Program update.
>
> As explained in the report, the City has planned projects to do improvements along Juanita Creek to reduce erosion from going into Juanita Creek. For more information about these projects, contact Noel Schoneman in the Public Works Department at 425-587-3870.
>
> In addition, the City is in the process of preparing a Surface Water Master Plan to address the overall

condition of the City's drainage basins, including storm water runoff and erosion. Questions on this master plan can be addressed to Jenny Gaus in Public Works at 425-587-3850.

However, from what I understand much of the sediment going into Juanita Bay is coming from development in King County.

Teresa Sollitto in the Parks Department can give you information about the Juanita Beach Park Master Plan that involves improvement to water flow at the beach. Teresa can be reached at 425-587-3312.

At this time, the City does not plan to dredge Juanita Bay.

Let me know if I can be of any further assistance.

Teresa Swan
Senior Planner
(425) 587-3258 Fax (425) 587-3232
tswan@ci.kirkland.wa.us
City of Kirkland
123-5th Ave
Kirkland, WA 98033

From: WWassmer@aol.com [mailto:WWassmer@aol.com]
Sent: Thursday, September 18, 2008 9:17 AM
To: Teresa Swan
Subject: Shoeline Master Plan - Juanita Bay

Ms Teresa Swan

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Bill Wassmer

206-898-2999

9025 N. E. Juanita Drive

Kirkland, WA 98034

Resident since 1989

ATTACHMENT 31

Teresa Swan

From: Barry Powell [bjpow6@gte.net]
Sent: Friday, September 26, 2008 3:34 PM
To: Teresa Swan
Subject: Shoreline Management Master Guidelines for Kirkland Waterfront

Dear Teresa:

I own the waterfront properties located at 191 and 195 Lake Avenue West in Kirkland, just north of the downtown area. I am concerned about the potential negative effect that the proposed new Shoreline Master guidelines might have on our waterfront properties and on other parcels on our street as well.
Each of our parcels has a home improvement on it. Both were built before 1965, and the 195 parcel, our home, is actually within 10 feet of the water's edge. Both properties have substantial rock bulkheads protecting them on the water's edge. There were virtually no restrictions upon how close a home could be built near the water's edge back in the 1950s and 1960s.
From what I understand, the proposed new Shoreline guidelines that the City of Kirkland would follow would require deeper setbacks for new construction, and that for new construction or remodeling of an existing home that the existing rock bulkheads be removed.
I feel that these new stringent restrictions would be unfair for the following reasons:

1. These improvements have been in place for many years, and therefore should be protected under the doctrine of vested rights.
2. Requiring the removal of existing improvements with any new remodeling or structure modification would constitute a taking of our property without just compensation.
3. The existing rockeries are now the home of marine wildlife, which are provided a safe haven and shelter from the elements and predators. For example we have a family of lake otters currently living in our rockeries. Removing the rockeries would destroy their marine habitat.
4. The existing rockeries provide protection from soil erosion from the many winter storms that churn up large waves that pound our shores. Without them, we would lose a substantial amount of our shoreline to the water, analogous to what would happen in the Netherlands if their dikes were removed.
5. Like a number of waterfront lots on Lake Avenue, our lot depth is not great--- our home at 195 Lake Avenue West, for example, is only 76 feet deep on our north side, and 90 feet deep on the south side. Requiring a new home on the lot to be set back nearer the street would leave relatively little room left to build a decent sized home. That limitation would severely diminish the value of the subject properties.

For these reasons, special consideration should be given to lakefront properties in Kirkland such as ours. The proposed new Shoreline guidelines should not be applied blindly wihout due regard to the topography, lot size, and existing improvements that are already in place there. There should be some form of vesting as to these existing improvements for those that have already built there. Rules as to new construction should not be so stringent as to severely limit new homes that might in the future be built there. In fact, many new large homes have been built on our street in the last few years that are much larger than the ones that we currently have. Everyone should have a right to be treated fairly and equally in this regard.
Respectfully submitted,
Barry Powell

Richard K. Sandaas
12453 Holmes Point Drive
Kirkland, WA 98034
425 823 2145

September 26, 2008

Mr. Paul Stewart
City of Kirkland
123 Fifth Avenue
Kirkland WA 98033

Reference: Kirkland's Shoreline Master Program Update

Dear Paul:

Mark Nelson and I appreciate the opportunity to meet last Monday with you, Teresa Swan and Stacy Clauson, and Amy Myers and Dan Nickel of the Watershed Company.

Here is a summary of some key points:

- *Long term costs and benefits should be identified and considered*
- *The City should be careful to consider the public and private interests*

We discussed these points only briefly and urge that costs and benefits be fully examined, described, and quantified in future work products. Currently they are only mentioned, but not elaborated on, in Goal SMP-5: Ensure that private property rights are respected.

- *The SMP updates should contain provisions to insure that strict implementation will not create unnecessary hardships.*
- *The SMP updates shall contain standards governing the protection of single family residences and appurtenant structures against damage or loss due to shoreline erosion.*

These are stated in RCW 90.58.100. The approaches beginning on page 22 of the September 11, 2008 materials should reflect these statutory requirements.

- *Identify unintended consequences and strategies to avoid or mitigate them*

Bulkhead replacement is a major component of the work to date. Unintended consequences could include erosion jeopardizing or damaging sewer lines and structures. Other issues may exist as well. A comprehensive technical review should be conducted to identify issues and determine their impacts

- *Bulkhead removal and redevelopment requirements, native plant requirements, and limitation on lawn areas need clarity. The "trigger" for their implementation should be reexamined.*

These requirements are found in Approaches 1, 2, and 3 on pages 22 and 23 of the September 11, 2008 materials. As written it would result in significant reduction of shoreline yards as well as their function and use by the property owner. The Staff Discussion and Recommendation under Approach 1 accurately states: "It should be noted that shoreline property owners will likely be concerned about this approach, due to potential costs, concerns about beach erosion and structure safety, and City-imposed requirements to remove existing features on the property." The key to this concern is what is truly envisioned and what the "trigger" is.

At our meeting we learned that the intent would be to allow fill in the water to provide for a less extensive intrusion by a sloping beach. Also it was explained that the vegetation requirement was not as extensive as the 50% requirement described in Approach 2 under Staff Discussion and Recommendation. These approaches need to be revised to provide a clear understanding of their intent and outcome.

The consultants provided information on bulkhead removal projects and locations. Since the meeting I have toured the sites where these have been installed. Two are located in Juanita Bay and were constructed this summer. It would be very instructive to monitor these during the upcoming winter months to see how they perform, particularly if the fill remains in place.

Up to this point it has been my understanding that the intent for requiring bulkhead removal would be upon new development or significant redevelopment and would constitute subdivision or consolidation of properties, or removal and replacement of structures. The "trigger" of 50% of the replacement cost of the original upland

development as stated in these Approaches would have a far different impact and needs to be reexamined because it does not meet the original intent. "Minor modifications" are also mentioned as a trigger which clearly is not consistent with the original intent.

We also discussed City owned shoreline parks and the impacts these requirements would have, both in function as well as cost. Clear descriptions of changes to shoreline parks, implementation triggers, and cost should be provided.

- *Viable incentives should be provided*

Possible incentives are mentioned in Approaches 8, 9, and 11. Approach 8 outlines coupling reduced setbacks with the removal of bulkheads and installation of native plants. This should be examined to determine whether it meets planning objectives and consistency within a neighborhood. Adjacent structures could be significantly impacted by visual intrusion due to reduced setbacks.

All permit reviews should be as efficient and straight forward as possible and the special treatment Approach 9 describes is counter to that.

The Public Benefit Rating System has been identified in Approach 11 as an incentive in providing a reduction in land assessments. This program is intended for open space classification and identifies twenty open space resources for accumulating points leading to a property tax reduction. It appears that only number 19, Urban Open Space, could be relevant. However the enrolling area must be at least one half acre to qualify. The shallow lots along the shoreline vary at about 100 feet in depth meaning that the shoreline frontage would need to be in excess of 200 feet to meet the qualifying area. Few, if any, properties are of this configuration. There are additional questions as to whether the footprint of structures could be included in the qualifying area. The viability of the PBRS as an incentive needs to be examined further.

- *Private property owners must be more involved in the SMP update process*

In spite of the efforts made by the City to date, knowledge of the process and involvement of private property owners has been minimal. An extra effort should be made to convey the key points and impacts on these owners. We stand ready to assist in making that happen.

- *Invasive Aquatic Weeds*

Invasive weeds do not recognize political jurisdictions or property parcels and a piecemeal approach in their control and eradication is not realistic. The most logical approach seems to be to have the Department of Ecology establish and manage an effective program.

Thank you for the opportunity to meet. We look forward to a continuing dialogue as the update processes continues.

Very truly yours

Richard K. Sandaas

cc: Stacy Clauson,
Teresa Swan
Amy Meyers
Dan Nikel
Mark Nelson

ATTACHMENT 33

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]

Sent: Wednesday, September 03, 2008 1:48 PM

To: Cathy Beam; MPaine@bellevuewa.gov; Peter Rosen; jding@ci.kenmore.wa.us; Robert Grumbach; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan

Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com; Dennis Reynolds

Subject: SMP UPDATE MEETINGS INVOLVING ANY DISCUSSION ON DEVELOPMENT STANDARDS FOR PIERS AND BULKHEADS ON LAKE WAHSINGTON

Dear Local Government SMP Update Point of Contact,

Hope all of you are well.

As we approach the point where the actual development standards for piers and bulkheads are discussed and put in writing to become your local law, it is also the time when local governments will need to decide if they are going to consider adopting the Corps RGP-3 guidelines being pushed by DOE or what best serves local property owners for projects that have an insignificant impact on ecological functions, listed species and critical habitat according to recent project approvals and reviews.

I hope everyone had the opportunity to review the last couple e-mails I forwarded since they pointed out a possible system to use in evaluating future projects without sending everything to DOE for a variance to be denied and other valuable information. I am also waiting to hear back from DOE on the e-mail sent on 4/7/2008 regarding 'no net loss of ecological" functions.

Last week I met with a local planner and biological consultant and had the opportunity to present a slide show of recently constructed projects on Lakes Washington and Sammamish, bulkheads and natural shoreline projects, and also presented drawings on projects approved by local, state and federal agencies, each of which exceeded or far exceeded the guidelines listed in the RGP-3. All of the projects went through the local SMP and SEPA process (which is forwarded to DOE for comment or appeal), WDFW Hydraulic Project Approval Process, the Corps Section 10 Process and the local Building Permit process. Each one, and many others stacked too high to bring to the meeting, received approval based on current regulatory standards and without any question represented an improvement over previously existing conditions for each of these properties along the shorelines for which you are responsible. Each project at one point or another went before every local, state and federal agency for review and comment prior to being approved.

The e-mail sent to you on 8/22/2008 contained a list of environmental improvements that have resulted through the responsible application of existing local Shoreline Master Programs combined with strict but flexible state and federal guidelines for nearshore and overwater development. We will not see nor hear of such a list from state regulators nor will there be any studies done to support this easily verifiable information. We will hear the number of piers and bulkheads on the lakes compared to 10, 20 or 50 years ago but we will not be told how regulations currently in place combined with modern design standards have made a measurable improvement over the gargantuan solid-decked piers of old. We will be told how much of the shoreline has bulkheads but will not be told how much has been restored to natural shoreline or that the simple installation of nearshore fill without removal of a bulkhead can provide excellent shallow nearshore habitat for migrating and spawning. Simply placed, there is no balanced perspective to be found.

Can each of you please let me know when future meetings of councils, boards or commissions where the SMP development standards for piers and bulkheads will be discussed will be held? It is very time consuming trying to go through each local website to hunt down the information. Thank you for your help.

We want to be a part of the process and provide "first hand" information on what has recently been approved along the shorelines of Lake Washington and Sammamish. I am available to meet with anyone

ATTACHMENT 33

who would like to review a slide show of projects approved over the past few years (since the RGP-3 was implemented) and review drawings on projects that do not align with the RGP-3 but were approved because they reflected an improvement over existing conditions.

We welcome the opportunity to assist local governments in making informed decisions based on factual information that will protect property rights, win the respect of your citizens and exercise responsible stewardship of the environment. We believe each of these can be accomplished through the SMP update process.

Thank you for your time. If you would like to discuss anything or schedule a meeting please contact me via e-mail or at 425-357-0312.

Have a great week.

Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

From: RLSTYLE [mailto:rlstyle@aol.com]
Sent: Monday, September 08, 2008 4:52 AM
To: Teresa Swan
Cc: KirklandCouncil; kirklandviews@gmail.com; Robin Jenkinson
Subject: Shoreline updates

RE: Shoreline Master Plan Revisions

Ms. Swan:

The Shoreline Master Plan being developed is filled with vague expressions, meaningless terms, and contains far from equal opinions as to the course of action needed to comply with the Shoreline Management Act. At great expense to taxpayers, it creates more problems than it solves. In short, the rather lengthy document is useless in providing certainty toward meeting its goals.

Vague expressions using words like "desire", "should seek", and "should encourage" are terms that almost guarantee full employment for attorneys and confrontational public meetings. The expressions also allow council to arbitrarily select how much homeowners and taxpayers will have to sacrifice in order to achieve socialistic goals instead of protecting the rights of property owners. Before such words are introduced into our building and zoning codes, they should be more accurately defined to allow staff and citizens an understanding of what is allowed and what's not. Else, the potential conflict between citizen's concerns will prevail and grow.

To restore, enhance, and protect our shorelines, the vague expressions are nothing more than meaningless terms until those terms are codified. In SMP-1.1, just how do our waterfront parks provide environmental protection? Most of them allow greater public use and have been developed at the expense of the environment. SMP-5 states, "Ensure that private property owners rights are **respected**." It should read, "Ensure that private property owners rights are **protected**." Just how are you going to respect the rights of property owners? Until you know how, then and only then can each of the goals of the Shoreline Management Act receive equal attention and understanding by staff and citizens.

The Shoreline Master Plan as presented is invasive on property owner's rights. Statements are made that are biased. In regard to "protecting the public interest", the goal states, "…coordinated planning efforts (are needed) 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." Being "consistent with public interest" assumes public interest is greater than private interest. That is probably constitutionally wrong.

SMP-1.3 should include stronger language to insure that docks serving private property remain. Water-related uses and water-enjoyment uses should include private property owners when it comes to enjoyment of the water. Also, the increased urban use of the water by boaters would be enhanced even more if they didn't have to worry about woody vegetation or debris along the shoreline that interferes with docking or boating.

Public policy should help prevent damage to private property instead of exasperating it. This is especially true when preventing damage due to wave action.

Sincerely,

Robert L. Style
6735 Lake Washington Blvd, NE
Kirkland, WA 98033
425-827-0216
rlstyle@aol.com

ATTACHMENT 35

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, September 03, 2008 1:48 PM
To: Cathy Beam; MPaine@bellevuewa.gov; Peter Rosen; jding@ci.kenmore.wa.us; Robert Grumbach; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan
Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com; Dennis Reynolds
Subject: SMP UPDATE MEETINGS INVOLVING ANY DISCUSSION ON DEVELOPMENT STANDARDS FOR PIERS AND BULKHEADS ON LAKE WAHSINGTON

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ATTACHMENT 35

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Have a great week.

Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

From: Tony Fassbind
Re: Proposed shoreline management changes
October 9, 2008

The proposed changes to Kirkland's Shoreline Management are flawed in many ways. Many of the proposed changes are based on aesthetic prejudices concerning what he lake should be like, not on hard science or studies. The fact is that there is no scientific basis behind most of the proposals. The proposed changes significantly impact the lake shore residents and users, with no reasonable expectation of any improvement to salmon survival or water quality.

The city council should reject most of the controversial aspects of the proposed act, and encourage more detailed study to identify any real problems, and to insure that changes have the desired impact. The city should adopt a softer approach to improving lake shore quality, by encouraging residents to do the right thing, rather than rely on the heavy hand of overreaching regulation.

From the Executive Summary of *Final WRIA 8 Chinook Salmon Conservation Plan*

• It has not been determined which actions provide the most habitat benefits per dollar spent, and how far suites of actions will get us toward Chinook recovery. The treatment phase, the "T" of the EDT model, to be completed during 2005, will provide additional analysis and direction. Risk of not taking specific actions has not been determined.

Negative Points:

1. Most Kirkland lots are too shallow, too steep, or too exposed to heavy seas to allow establishment of sand beaches. As noted in the proposal, sand beaches require the continual erosion of the shoreline to replenish the beach; this is obviously not practical in the city, as it would require the removal of all structures and roads along the shore. This is mostly an aesthetic issue. While it can be argued that a soft shoreline looks better and may provide better bird and waterfowl habitat, there is no science to support the proposal that a soft shoreline would somehow improve salmon survival. The city should tread lightly with this issue, and if a soft shore is desired, incentive approaches should be tried first.

2. The entire city watershed currently drains into lake Washington via the storm drain system, which directs all yard and road runoff directly into the lake. Restricting fertilizer and yard chemical use to only a small strip along the lake would have no measurable effect on water quality. Further, lake water quality is currently good, even with the existing unrestricted runoff. There is no indication that a problem with fertilizers and other yard chemicals exist. Far more would be accomplished via a city wide program to educate all city residents about the effects of overuse of yard chemicals, rather than singling out lake shore residents for punishment.

3. The Kirkland waterfront is exposed directly to the South and West, resulting in long hours of intense summer sun. There is no science behind the recommendation for establishing overhanging vegetation along the shore. The small amount of shade provided would be an extremely small proportion of the lake surface, with no measurable change in lake temperature. If shading is desired, then why are docks being shrunk and light transmissive dock surfaces being proposed? It is entirely feasible that the manmade docks, marinas, and overlake structures actually reduce lake temperature. This again is an aesthetic issue. If the city wants natural shade plants along the lake, which would look nice, it could start with its own parks as demonstration projects. The city could establish an outreach program from the parks department to encourage residents to plant different plants on the shore. This would likely have a more immediate impact than the proposals.

4. To my knowledge, there have been no studies to directly link any of the proposed changes to Lake Washington to juvenile salmon survival. There have been no studies to show how any proposed changes would affect any of the other animal and fish populations. There has never been a census of animal and fish populations of the lake. All the proposals in the shoreline management draft and WRIA 8 are based on conjecture, not fact. It is entirely possible all the expensive and disruptive changes proposed would have no impact on salmon, or could even reduce survival.

Positive Points:

1. The staff's recommendation in section V of the Sept. 30, 2008 memorandum to the council, allowing waterward filling from the OHWM for the purpose of creating a soft shoreline is encouraging. This will allow owners of shallow lots to leave their existing bulkheads in place and create a soft shore at relatively low cost.

Tony Fassbind
Kirkland lakeshore homeowner
149 Lake Ave. W.
tonyfassbind@verizon.net

To City of Kirkland Planning Commission members

From Jack Rogers 1025 Lake St S. Kirkland Wa.

Dear Commission Members:
Thank you for this opportunity to speak to you about our concerns. Let me start by saying I believe that most folks are pleased that the city and state are doing something about protecting fish and the environment. It's how you appear to be going about this that concerns us. The city has declared that the removal of bulkheads, armoring, lawns, installation of shoreline vegetation and pier modification are paramount. As you read these proposals it is clear that the lakefront homeowners will bear the brunt of them. I ask you now: Is it true that the permitting process will or could be used to trigger a bulkhead removal at the homeowner's cost? Has the city considered that some lots are too shallow to accommodate a beachfront? Has it factored in the extremely rough water conditions on the east side of the lake that may erode shores that literally hold up homes, that may jeopardize roadways if bulkheads are removed? Is the city really going to remove lawns from public parks? Have these proposals that the city would also have to comply with been studied and expensed? My opinion is that proposals which demand homeowners pay for removal or armoring to accommodate the city amounts to a taking. SMP goal #5 says it will" ensure property rights are respected" This doesn't sound like respect to me if the foregoing is true This is my third visit to a planning commission meeting. I have asked questions each time. Richars Sandaas submitted a six page letter at your last

meeting. One of three he has sent. The silence is deafening. I believe it is time for a spokesman from this commission to begin answering these questions.

ATTACHMENT 38

From: Barry Powell [bjpow6@gte.net]
Sent: Thursday, October 09, 2008 3:17 PM
To: Teresa Swan
Subject: Fw: Shoreline Management Master Guidelines for Kirkland Waterfront
ADDENDUM

----- Original Message -----
From: Barry Powell
To: TSwan@ci.kirkland.wa.us
Sent: Friday, September 26, 2008 3:33 PM
Subject: Shoreline Management Master Guidelines for Kirkland Waterfront

Dear Teresa:

I own the waterfront properties located at 191 and 195 Lake Avenue West in Kirkland, just north of the downtown area. I am concerned about the potential negative effect that the proposed new Shoreline Master guidelines might have on our waterfront properties and on other parcels on our street as well.
Each of our parcels has a home improvement on it. Both were built before 1965, and the 195 parcel, our home, is actually within 10 feet of the water's edge. Both properties have substantial rock bulkheads protecting them on the water's edge. There were virtually no restrictions upon how close a home could be built near the water's edge back in the 1950s and 1960s.
From what I understand, the proposed new Shoreline guidelines that the City of Kirkland would follow would require deeper setbacks for new construction, and that for new construction or remodeling of an existing home that the existing rock bulkheads be removed.
I feel that these new stringent restrictions would be unfair for the following reasons:

1. These improvements have been in place for many years, and therefore should be protected under the doctrine of vested rights.
2. Requiring the removal of existing improvements with any new remodeling or structure modification would constitute a taking of our property without just compensation.
3. The existing rockeries are now the home of marine wildlife, which are provided a safe haven and shelter from the elements and predators. For example we have a family of lake otters currently living in our rockeries. Removing the rockeries would destroy their marine habitat.
4. The existing rockeries provide protection from soil erosion from the many winter storms that churn up large waves that pound our shores. Without them, we would lose a substantial amount of our shoreline to the water, analogous to what would happen in the Netherlands if their dikes were removed.
5. Like a number of waterfront lots on Lake Avenue, our lot depth is not great--- our home at 195 Lake Avenue West, for example, is only 76 feet deep on our north side, and 90 feet deep on the south side. Requiring a new home on the lot to be set back nearer the street would leave relatively little room left to build a decent sized home. That limitation would severely diminish the value of the subject properties.
For these reasons, special consideration should be given to lakefront properties in Kirkland such as ours. The proposed new Shoreline guidelines should not be applied blindly wihout due regard to the topography, lot size, and existing improvements that are already in place there. There should be some form of vesting as to these existing improvements for those that have already built there. Rules as to new construction should not be so stringent as to severely limit new homes that might in the future be built there. In fact, many new large homes have been built on our street in the last few years that are much larger than the ones that we currently have. Everyone should have a right to be treated fairly and equally in this regard.

6. Before 1961, there were no rock bulkheads, but the water's edge was 15 - 20 feet further into the property as a result. This becomes significant where new restrictions would require a deeper setback from the water on any new construction or remodeling that may occur in the future.
7. In the last 30 years, winter storms have increased in severity, perhaps in part to global warming. We have, at times, suffered serious shore erosion even with the rock bulkheads in place.
8. We have added fill in the past at our shoreline and our observation has been that the fill has been carried out into the water and scattered in severe storms.
Our shoreline is a straight line in our location, as opposed to Juanita Bay, which has a semicircular, concave shaped shoreline-----that shape is much better able to collect and retain fill, and should therefore not be used as a determining factor as to how fill will or will not remain intact over time in a shoreline such as ours which is more of a straight line.

Respectfully submitted,
Barry Powell

ATTACHMENT 39

From: Katherine Curry [currymom@hotmail.com]
Sent: Saturday, October 11, 2008 11:51 AM
To: Teresa Swan
Subject: Shoreline Master Plan Revision
October 10, 2008

Dear Ms Swan and Planning Board,

I am writing as a member of the Shumway Condominium Landscape Committee. The Shoreline Master Plan is a comprehensive and complex document, somewhat difficult for laymen to fully comprehend. It is our interpretation that the plan includes provisions for planting fast growing, tall trees, with wide growth spans, as street trees along Lake Street South at David Brink park and other walkways between Carillon Point and Downtown.

We ask that the board reconsider planting tall trees with wide growth spans as street trees along David Brink Park. Planting smaller vegetation with short narrow canopies and foliage, with appropriate spacing, would preserve access and views for pedestrians, visitors and property owners without eroding the tax base.

Public access and views need to be preserved for the multitude of pedestrians that utilize David Brink Park and the surrounding areas, including but not limited to Lake Street S and the parallel and perpendicular walkways and streets in the area. Impaired views and minimized access will reduce pedestrian usage. This will translate into fewer pedestrian dollars being spent at downtown businesses, negatively impacting city revenues.

Private views from properties along Lake St. S and the surrounding parallel and perpendicular streets need to be preserved to protect real estate values. Loss of views and access will reduce property values, minimizing tax revenues for the city of Kirkland.

We appreciate your consideration of this recommendation. Please advise of your decision.

Katherine Curry
510 Lake Street S. #B102
Kirkland, WA 98033

425-890-5354
Currymom@hotmail.com

ATTACHMENT 40

From: RLSTYLE [rlstyle@aol.com]
Sent: Monday, October 13, 2008 9:52 AM
To: kirklandviews@gmail.com
Cc: KirklandCouncil; Teresa Swan
Subject: Corrected letter to the editor
The correction: The next meeting will be November 24th with the Houghton Community Council. Also, I added my name and address. I would encourage staff to include the public comments on their shoreline Internet page. The corrected letter to the editor is as follows.

What happened at the Planning Commission's October 9th meeting was clearly the result of staff's overzealous approach to adopting more regulations than what is necessary to comply with the new Shoreline Master Program "guidelines." It was a contentious meeting with a very upset audience who were outspoken against what staff is trying to do.

The guidelines clearly state that shoreline repairs and construction of bulkheads for single-family homes are exempted from being subject to a substantial development permit. They also state that property should be protected. Bulkheads (armoring) are necessary and should not be removed.

A citizen printed and distributed the following questions. My comments follow in (*parentheses*).

1. **Is the city using the permitting process to remove bulkheads (armoring) at the owner's expense?** (*Yes even though the requirement to restore or enhance the environment is a state law and should be financed by the state. If not by them, at lease by all the citizens who enjoy the lake.*)
2. **Will lakefront property owners be required to have a professional study done on their property in order to retain bulkheads?** (*So far, yes even though most of the properties in Kirkland are subject to the same wave action from wind and boats. The need for bulkheads is well documented. A citywide hydraulic study would be appropriate..*)
3. **Have any studies been commissioned to determine what damage may occur as a result of the city removing all armoring from its parks and other properties?** (*No*)
4. **How will the city, as the largest waterfront property owner, pay for the compliance with its own policies?** (*The city will make changes when they repair or upgrade their properties. Until then, nothing if anything, will be done by the city to improve the restoration of the shoreline environment. After all, the city has a $17 million dollar budget shortfall already with more being considered.)*
5. **Are we proposing to remove all lawns from our public parks?** (*Probably not*.)
6. **How do you plan to deal with polluted and toxic runoff into Lake Washington?** (*The city has required property owners to install water quality improvement devises but has not applied the same requirements to city projects, the most glaring being oil-silt separators in storm drains. It should be noted that storm water quality from Kirkland is already better than most cities.)*
7. **What is being done to improve the permeability of the watershed to prevent runoff into Lake Washington?** (*Some but not enough. It will be difficult to improve permeability on properties east of H-405 because of poor soil conditions and a high water table. Those properties have septic tank problems and need sewer lines as well as a good storm drainage system, hopefully with oil-silt separators. The city also is allowing larger homes on smaller lots.)*

There are more shoreline meetings to come the next one being November 24th.

Whatever is done to save what's left of our shoreline ecological functions, attorneys should review the commission's recommendations before submitting them to council. First and foremost, individual rights need to be protected, and the city needs to be sheltered from any more lawsuits.

ATTACHMENT 40

Sincerely,

Robert L. Style
6734 Lake Washington Blvd, NE
Kirkland, WA 98033
425-827-0216

McCain or Obama? Stay updated on coverage of the Presidential race while you browse - Download Now!

From: RLSTYLE [mailto:rlstyle@aol.com]
Sent: Monday, October 13, 2008 2:24 PM
To: Kirkland Courier Reporter
Cc: KirklandCouncil
Subject: The shoreline update

Protecting the shoreline.

The piecemeal approach to require individual property owners to comply with what staff suggest will not do what is intended, "no net loss of shoreline ecological functions". The distance between single-family homes that are not subject to the substantial development process south of Kirkland is too long. The fish are vulnerable and will not be able to find havens soon enough in the small parcels of land that are modified and few and far between in south Kirkland.

North of the city center where single-family homes are prevalent, it's a different issue. If someone improves his or her property more than the exemption allowed by law, it becomes subject to the substantial development process. It would trigger shoreline and bulkhead reviews with possible removal of existing bulkheads. If they complied and their neighbor did not because they did not need or desire to improve their property, it would be like what the city did with concomitant agreements to provide sidewalks, a piecemeal approach and loss of revenues that resulted in no sidewalks. Of course the city could condemn the shoreline between ecology-approved parcels and use adverse possession to force improvements, but that would be expensive and political suicide.

The downtown business area is a large obstacle to what staff recommends. The area is huge and full of environmental incorrect structures that would be difficult and very expensive to correct. According to the staff report, the area impedes the migration of fish; however, the Shoreline Management Program allows for commercial development.

In conclusion, what staff has proposed is expensive, an intrusion on property rights, more than what's necessary to comply with the law, and will not achieve the goal of "no net loss of shoreline ecological functions," that exist today in Kirkland. The bald eagles still hover over Kirkland, the fingerlings still linger along our shoreline, and the people can enjoy the way Kirkland is now.

There will be a hearing at city hall with Houghton Community Council on November 24th.

Sincerely,

Robert L. Style
6735 Lake Washington Blvd, NE
Kirkland, WA 98033
425-827-0216

From: Eric Shields
Sent: Tuesday, October 21, 2008 3:15 PM
To: 'RLSTYLE'
Cc: Teresa Swan; Paul Stewart
Subject: RE: Response to the reasons for the Shoreline update

Thanks Bob. Your comments speak to the importance of applying the regulations in a reasonable manner with respect for existing improvements and property rights. We'll make sure your comments are forwarded to the Planning Commission as they review and guide the SMP update.

Eric Shields
Director
Kirkland Dept. of Planning & Community Development

From: RLSTYLE [mailto:rlstyle@aol.com]
Sent: Tuesday, October 21, 2008 11:13 AM
To: Eric Shields
Cc: Teresa Swan
Subject: Response to the reasons for the Shoreline update

Thank you very much for the information. I think the city is overdoing what is required. We are spending too much time and money on the small changes (many of them could be administrative) needed to comply with the state. What will appease the state requires much less than what you're doing. Even if it doesn't, we could go years before the issues are resolved so there's little reason to eagerly pursue making a mountain out of a mole hill.

Here are my comments (in red) to the reasons for the update you've sent. Again, thanks.

Why the City must prepare a New Shoreline Master Program

Below is an explanation of the 4 key reasons why the City needs to prepare a new Shoreline Master Program:

1. New State Guidelines

In 2003 the State issued a comprehensive set of guidelines addressing requirements for local Shoreline Master Programs, which are contained in Chapter 173-26 of the Washington Administrative Codes.

The City's SMP must meet the new State Guidelines and the Department of Ecology must approve the City's updated SMP. After review of the City's SMP and the new State Guidelines, the City has determined that the current SMP is not consistent with many key requirements of the new Guidelines. Therefore, the City will be amending sections and adding new sections to make the City's SMP consistent with the State Guidelines.

The following describes some of the key new requirements found in the Guidelines:

- **Shoreline Environmental Designations**. The Guidelines establishes a new system of classifying the shoreline areas based on physical, biological and development characteristics. Each shoreline environment has a different level of protection and the allowed uses, activities and improvements must be appropriate for protecting existing and proposed ~~that~~ level(s) of protection. The City's current shoreline designations need to be modified to meet the new classification system. (The city has failed to justify what needs to be changed and how it plans to protect existing uses.)

- **No Net Loss.** The Guidelines require that the impacts of new uses, activities and improvements be identified and mitigated with a final result "no net loss" of ~~the~~ existing shoreline ecological function. The

benchmark for the 'no net loss' starts with the City's 2006 Final Shoreline Analysis completed for the SMP update. Since most types of shoreline development result in at least some degree of impact to ecological functions, the 'no net loss' standard means that the SMP must contain provisions for avoiding, minimizing or mitigating these unavoidable impacts. In evaluating 'no net loss', the City must consider the aggregate effect of future development allowed through implementation of the updated SMP that includes both the individual impact of each development and the cumulative impact of all of the development that is likely to occur. (Much of the previous shoreline ecological functions have already been lost so the meaning of what constitutes "no net loss" for Kirkland needs to be defined. Just what shoreline ecological functions should be restored while **protecting existing uses** need to be identified? Many shoreline ecological functions cannot and should not be restored if it destroys buildings or modifies existing land uses to become usable even for single-family homes. The city's marina and the multiple condominiums along the shoreline cannot be favorably modified to a shoreline environment that allows for migrating fish to be protected from docks. If the city could develop a new shoreline by constructing a breakwater 300 feet off shore, it would do much to restore the desired ecological functions while protecting what's already built. It also would distribute the cost to everyone who enjoys the lake instead of putting the entire cost on shoreline property owners. However, given the current budget shortfall, I don't think it's economically feasible.)

- **Restoration Plan**. The Guidelines also require jurisdictions to identify, prioritize and plan for restoration of ecological functions where the functions have been impaired. (The word "impaired" infers that some of the ecological functions still exist. It does not define what already has been lost.) Restoration plans are to be done through a combination of public and private programs and actions. (Before requiring property owners to comply with any new rules, the city should comply first.) The goal is to improve the overall condition of habitat and resources within the shoreline area over time compared to the existing conditions as documented in the 2006 Final Shoreline Analysis. Actions could include planting shoreline vegetation, replacing part or all of bulkheads with soft shoreline stabilization and adding fill and vegetation waterward of existing bulkhead. (Both the RCW's and WAC's emphasize shoreline land uses for single-family homes; however, the Shoreline Analysis appears to lessen those priorities as well as benefits of water usage and commercial development. There is a conflict between adding vegetation waterward and water usage. Limbs, branches, roots, milfoil, lily pads, and reeds are not conducive to water usage. There is also a conflict with how much shading is required and how close to shore it should be not to mention that much of the vegetation suggested would block views of neighboring properties as wells as the subject property.)

- **Shoreline Stabilization**. The Guidelines contain specific standards addressing shoreline stabilization. The Guidelines make clear distinctions between hard structural shoreline stabilization (not preferred), such as a bulkhead or concrete wall and soft shoreline stabilization (preferred), such as a mix of gravels, cobbles, boulders, logs and native vegetation. New hard structured shoreline stabilization is only to be allowed if soft shoreline stabilization is not feasible for adequate protection of existing adjacent (upland) structures. (I've already expressed my opinion about trying to prevent "no net loss" with piecemeal-patchwork approaches. Since new regulations can only be applied if the property becomes subject to the shoreline development process that already exempts single-family homes, property repairs, docks and bulkheads, total shoreline restoration is almost impossible. Many property owners are satisfied with what they have. So to put the onus on only those who fail to qualify for one of the exemptions is not realistic and will not achieve "no net loss." It will go by the wayside just like what happened with concomitant agreements.)

2. Critical Areas Regulations

Under WAC 173-26-221(2), the City's SMP must provide for management of critical areas. The City's current SMP contains no critical area management standards. The City's city-wide critical area ordinance (CAO) was adopted in 2003 which predates the issuance of the Department of Ecology's Western Washington Wetland Rating System and DOE's issued guidance for management of wetlands. Critical area ordinances must also meet the Best Available Science (BAS) as defined in WAC 365-195-905 when amending the critical area regulations.

Critical area regulations need to be added to the new SMP that reflect an updated rating system and BAS. (No problem. Just do it or tell the state you will include critical area protections at a date set in the future. It's not like we don't protect the critical areas now.)

3. Puget Sound Salmon Recovery Plan

In 2005, 27 local governments, including Kirkland, ratified the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. This plan, together with other plans prepared throughout the Puget Sound region, became part of the official Puget Sound Salmon Recovery Plan approved by NOAA Fisheries Service in 2007. WRIA 8's efforts at the local jurisdiction level focus on the conservation and restoration of salmon habitat. For Lake Washington nearshore areas, the WRIA 8 key recommendations are to reduce bank hardening, restore overhanging riparian vegetation, replace bulkheads and rip-rap with sandy beaches and gentle slopes, use plastic mesh rather than solid wood dock surfaces and reduce the number of docks for more shared docks. The SMP needs to reflect the commitment that the City has made to regional Salmon recovery efforts. (Just inform the state Kirkland will comply with the recovery plan as necessary.)

4. Consistency with the Zoning Code and State and Federal regulations

The current SMP was adopted in 1974 and has rarely been amended because of the comprehensive amendment process established by DOE. The current SMP contains a combination of goals, policies and shoreline regulations. There are inconsistencies between the current SMP and regulations found in the Zoning Code that need to be resolved. Also, the SMP does not reflect the new standards for dock construction and hard structural shoreline stabilization from the Washington State Department of Fish and Wildlife and the US Army Corps of Engineers that have jurisdiction over shoreline development, and the Puget Sound Salmon Recovery Plan as discussed above. (With all the requirements the city and other agencies have required of me in the past, it's hard for me to comprehend the conclusion of this statement. Zoning code or not, I had to comply. Changing the zoning code to comply with Federal, State, County, and City requirements seems unnecessary other than to prevent a conflict that is easily fixed. Who knows, it may also prevent contentious meetings and possible lawsuits.)

In a message dated 10/20/08 15:45:00 Pacific Daylight Time, EShields@ci.kirkland.wa.us writes:

> Bob,
>
> Attached is a document that provides a general explanation of why the City must update our Shoreline Master Program. The City has been preparing background information and new shoreline policies for a number of months. We are now working on the more difficult and controversial task to preparing new shoreline regulations. The final document must of course meet state statutes and administrative codes. However, it is our intent to create a document that recognizes the largely built-out nature of Kirkland and does not make unreasonable demands on property owners. At the same time, it is likely that significant new development/ redevelopment will be encouraged or required to retrofit shoreline improvements, such as bulkheads, with more natural improvements. There's lots more work to do before we figure this all out. Finding the proper balance will be a major challenge of the work ahead. I appreciate your concerns, but ask that you stay involved in the process and work and help the Planning Commission find that balance
>
> Eric Shields
> Director
> Kirkland Dept. of Planning & Community Development
>
> ---
>
> **From:** RLSTYLE [mailto:rlstyle@aol.com]
> **Sent:** Wednesday, October 15, 2008 1:39 PM
> **To:** Eric Shields
> **Cc:** KirklandCouncil; Teresa Swan; Robin Jenkinson
> **Subject:** Shoreline update
>
> Eric:

Using myself as an example, as someone who lives on the shoreline who's been hit with great expenses for three projects in order to comply with federal, state, county, and city codes under the Shoreline Management Program in the past 22 years, I don't see much difference between current rules and what is required by RCW and WAC regulations. Some other jurisdictions may not have kept up with the shoreline changes but Kirkland has.

My last effort to extend my dock cost me $36,000 of which $24,000. $12,000 was in construction. The expense included new hydraulic study that was unnecessary because neighboring studies could have been used.

There are so many exemptions to the Substantial Development Permit requirements including bulkheads, docks, single-family homes improvements, and improvements that enhance fish habitat all of which are reviewed by a multitude of agencies, what the city is doing to "update" their Shoreline Management Program is a waste of time and money. We are already in compliance. All the city is doing is using a blanket request by DOE to impose new regulations that are not necessary.

You will eventually have to put your name on the memos to the Planning Commission and to the Council. It's time you to step in and put an end to unnecessary staff reports, meetings, and costs. Using previous historical data from projects reviewed by the city, you need cite them and stop avoiding your responsibilities as Planning and Community Development Director. You need to recommend to council that the city sends DOE a response that shows Kirkland is already in compliance with federal and state laws.

Sincerely,

Robert L. Style
6735 Lake Washington Blvd, NE
Kirkland, WA 98033

ATTACHMENT 43

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, October 22, 2008 9:23 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Peter Rosen; jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; Jean.White@kingcounty.gov; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan; Stacy Clauson; Robert Grumbach; Skowlund, Peter (ECY)
Cc: becky@marinellc.com; eride@msn.com; raa@vnf.com; Mark Nelson; donovan@donovantracy.com; vanskamok@verizon.net; Steve; Alan Foltz; Derek Jennings; Phil
Subject: RESULTS OF MEETING WITH DEPT OF ECOLOGY ON 10/17/2008 REGARDING SMP UPDATES

Dear Local Planner, SMP Point of Contact and Other Interested Parties,

We (Waterfront Construction Permit Department) had a very productive and cordial meeting with Mr. Peter Skowlund and Mr. Joe Burcar from the WA Department of Ecology (DOE) on 10/17/2008 to discuss concerns on the direction and implementation of SMP Updates for Lake Washington and Lake Sammamish communities. We were presented with a draft of a 7 page letter that DOE has or will be distributed to each local government to address questions and concerns received by DOE over the past several months. We want to express our thanks to Mr. Skowlund and Mr. Burcar for listening to our concerns and acknowledging that there may have been some misunderstanding in that pier and bulkhead projects permitted and constructed over the past 5 to 10 years have actually resulted in improvements over previously existing conditions and impacts on listed species, critical habitat and ecological functions. The meeting was very cordial with some healthy discussion at times but DOE was very open to our thoughts and ideas and pleased to hear that positive changes had already been implemented. We also want to acknowledge and thank Becky Henderson of Marine Restoration for attending the meeting and providing valuable insight.

Below are the most important items discussed at the meeting and provide a quick review. Essentially, DOE agrees that local governments should provide an alternative process for redevelopment as long as they can support a “no net loss of ecological functions”. The information below is provided based on our meeting with DOE and review of their letter addressing questions and concerns. This is written from my recall of the meeting and if you have any questions you should consult with Mr. Skowlund or Mr. Burcar or review the Fall 2008 Guidance letter regarding validity of the information. I am also forwarding this to Mr. Skowlund and Mr. Burcar so the process remains as transparent as possible.

It is vital that those jurisdictions further along in the process (Redmond and Lake Forest Park) reconsider their development standards, especially for redevelopment of existing structures in light of the fact that projects can likely exceed previously promoted RGP-3 or other standards and still arrive at a “no net loss” outcome. Choosing no to do so will result in a local SMP falling well short of serving the best interests of your property owners living within 200 feet of the shoreline while still meeting the intent of “the act”.

- In the letter from DOE to local governments “no net loss” is defined as, “through implementation of the updated SMP, the existing condition of shoreline ecological functions should remain the same or be improved over time”. This goal is not solely based on guidelines contained in the RGP-3 for piers or in any type of literature targeting the removal or prohibition of bulkheads. For piers, this opens the way for new structures and more importantly the redevelopment of existing structures, regardless of size, as long as “no net loss” can be proven. For bulkheads, the same is true as long as a new bulkhead or repair or replacement of an existing bulkhead can prove “no net loss”. As a result, we believe “no net loss” can be established for nearly every redevelopment project and some new development projects by evaluating them at face value and without the need for costly consultation being placed on the local government or property owners. This is great news for everyone and should alleviate the need for a costly geotechnical analysis borne by a property owner to justify a bulkhead repair or replacement.

The management strategy discussed at the bottom of page 3 of the Fall 2008 Guidance is and will be met on nearly all recent and future redevelopment projects and will actually result in a "net gain" or "restoration" of ecological functions at a specific site and therefore contribute positively to the ecological functions of the entire jurisdiction. Redevelopment meeting such a strategy should be encouraged both by local government and DOE as a means of meeting goals. At the top of page 4 the Guidance states, "Ecology suggests that local governments clearly distinguish between new and redevelopment standards to ensure adequate protection of existing ecological functions". Redevelopment with reasonable and flexible site specific standards offers the best opportunity to do such a thing.__

RESULTING ACTION/RECOMMENDATION:
We can provide drawings for projects on Lake Washington and Lake Sammamish that have been approved at local, state and federal regulatory levels which exceed the guidelines of the RGP-3 but received the same effects determination of the RGP-3; "may affect, not likely to adversely affect" listed species and/or their critical habitat. There are projects that were approved through the RGP-3 (complying and non-complying), Letter of Permission, and Individual Permit processes at the Corps with all rendering the same result. Some of these have had Biological Evaluations completed to meet Section 7 Consultation requirements under the ESA. We also have drawings for bulkhead replacement projects approved by local, state and federal regulatory agencies where in each and every case a "no net loss" declaration would be met. We are willing to provide local governments with examples of such projects if requested.

If each redevelopment project is an improvement over existing conditions, because Lake Washington and Lake Sammamish are highly developed and "built out", the goal of a Cumulative Impact Analysis to assure "no net loss" will be naturally attained, whether the project involves replacement of a pier or bulkhead with a more environmentally friendly design.

The only way for local governments to accurately inventory the existing conditions would be to attain the existing amount of overwater coverage for docks in each zone and total them. This would serve as a baseline for future development and redevelopment. Short of doing such, the burden would be unfairly placed on property owners to prove their project has "no net loss". This would hold true for bulkheads also and would support the redevelopment of such structures, especially where they are being replaced with a fish friendly design, shifted landward, involve a partial coved area or full removal, or include fill to provide shallow nearshore fish habitat and erosion protection at the base of the structure. Many bulkheads are not candidate for removal and very few property owners are willing to do a total removal but many are open to considering a combination of elements resulting in improvements that meet the "no net loss" goal. The requirement for any type of geotechnical analysis to justify a repair or replacement of an existing bulkhead places an undue and costly burden on the property owner. If a bulkhead repair or replacement shows that "the existing shoreline ecological functions" it should be accepted and encouraged at face value through consultation with a local planner who understands the intent of the SMP.

Local SMP Updates, regardless of how far along in the SMP update process they are, should implement a process for redevelopment and new development by understanding the system of checks and balances in place at the state and federal regulatory levels. Although these responsibilities cannot be handed over to other regulatory agencies, reviewing and acknowledging the most problematic issues and elements in order to avoid the same mistakes should be a primary goal of local government and DOE. A strong example are the planting plans required for offsetting impacts from nearshore and overwater development which are reviewed by qualified state and federal biologists at 4 agencies (WDFW, Corps of Engineers, NOAA- Fisheries and U. S. Fish and Wildlife) familiar with the most productive riparian and emergent plant species to benefit fish life. Placing a blanket requirement in the SMP for a 10' strip of riparian plantings across the entire width of a property is counterproductive, overly restrictive and unnecessary. If a planting plan is required for a project then the plan approved by state and federal agencies should be accepted by local government. This will establish consistent planting plans over a wide area and have the most effect.

- One point of disagreement at the meeting is the need for specific development standards. We believe standards may tend to be overly restrictive as already witnessed and force applicants to go through a shoreline variance process or avoid making improvements that would otherwise be made. DOE does not want the SMP Update process to result in additional variances and during our discussion the agency understood how this would be the natural fallout of overly restrictive standards. They have asked us to provide them with a list of items that will most commonly push a project into a variance process and they will work with local governments to assess and try to avoid such.

There are only a couple local governments who currently have a maximum pier size; Bellevue through their CAO, Redmond and King County. There are others that have maximum pier widths; Bellevue, Kirkland, Medina, Mercer Island, Renton, and Seattle. There are a several who have a maximum "ELL" size or width; Bellevue, Mercer Island, Renton, and Seattle.

Based on projects permitted and built over the last 5 to 10 years, whether new development or redevelopment, structures approved in those jurisdictions having the least restrictive guidelines are not much larger and no more impacting than those built in other jurisdictions due to state and federal regulatory oversight through permitting processes at the Corps of Engineers and WDFW. With very few exceptions, because improvements were made at each site through mitigation, a determination of "may affect, not likely to adversely affect", the same determination being used by DOE to support a "no net loss of ecological functions" was established. This means that local governments do not need to be overly restrictive and the standards in their existing SMP's are already working.

Changes, including more restrictive pier sizes, lengths or widths of walkways or "ELLS" would be counterproductive. A good example is the City of Sammamish which is not limiting pier size, but is trying to limit pier length to the average of the 2 adjacent piers. This is problematic in and of itself. A better solution is to place a maximum pier length or water depth, whichever is reached first, in order to respect the conditions specific to each site and limit shoreline variance opportunities. Similar to Mercer Island, if adequate water depth is not reached there is a caveat to allow the pier to extend further to reach that point. This type of development standard is flexible and avoids shoreline variances with rare exceptions; the goal of the variance process. It also promotes the "no net loss" requirement.

RESULTING ACTION/RECOMMENDATION:
The goal of "no net loss" can be met without overly restrictive development standards as a part of your SMP update. The City of Sammamish, although containing a couple of standards that are problematic and we hope to discuss and work out a solution, has the right idea and during their presentation the biological consultant stated something to the effect of "with the state and federal regulations in place they did not see a need to be overly restrictive on pier sizes in their SMP". This is a healthy approach although we do not know how it will be received by DOE.

- DOE expressed a lack of knowledge of how the Building Code and other zoning regulations must be met in a coordinated effort for each project and displayed a willingness to take this into consideration. Building load requirements preclude some of the design standards included in the RGP-3 and some of the proposed SMP updates from being met and are problematic. Although not discussed at the meeting, this includes a recommendation from the biological consultant to the City of Sammamish Planning Commission to require untreated materials to be used in the aquatic environment and on materials exposed to weather in the case of new and replacement piers. This includes all materials associated with pier construction but under the Building Code wood exposed to weather is required to be treated with a preservative. Aquatic wood preservatives are approved by state and federal regulatory agencies, fully cured before installed, and result in extended life to minimize impacts from additional construction over a longer time period. As a result, I spoke with the Executive Director of Western Wood Preservers Institute in Vancouver WA (responsible for research, testing and standards for treated wood) and based on conditions for Lake Washington and Lake Sammamish he said untreated wood will be structurally sound for 4 to 7 years versus 30+ years for treated wood and for natural treated wood like cedar it is closer to 8 to 10 years versus 30+ years. This alone supports the use of wood that is treated professionally and according to conditions from state and federal regulatory agencies.

- Although there was limited discussion on bulkheads due to time restraints, but page 6 of the Guidance letter states DOE would be in support of partial restoration of shorelines where improvements over existing conditions are achieved.

Our company would be very interested in meeting with any planners or SMP contacts to discuss the positive direction DOE has moved in as stated in the Fall 2008 Publication regarding SMP Issues Sent to Local Governments. We believe this was generated in response to many seeing a problem with how things were being done and the reality of restricting or taking of property rights. We believe this document also gives local planners and SMP update personnel more latitude and breathing room to establish a less restrictive and more flexible SMP in regard to piers and bulkheads. Waterfront property owners will be better served by this new approach.

Our goal is to support the rights of property owners, sustain the health of the marine permitting and construction industry, work in a spirit of cooperation with local governments by sharing our 40+ years of permitting and construction experience with local, state and federal regulatory agencies, respect the goals of DOE through the

ATTACHMENT 43

SMP update process, protect the marine environment, and achieve a winning outcome for all interested parties. Our closest relationships are with individual property owners and local governments but through the recent meeting with DOE we hope to establish a much closer working relationship with the agency. It is through mutual respect and understanding that we can work as a team on this sensitive and important issue and serve the citizens of our state.

Our thanks to Mr. Skowlund and Mr. Burcar and those local governments who have already made us a part of their update process. Please contact me if you would like to discuss SMP issues for permitting or construction. My office number is 425-357-0312 or cell is 206-786-6470.

Sincerely,

Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

ATTACHMENT 44

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, October 22, 2008 2:56 PM
To: Daved; Cathy Beam; MPaine@bellevuewa.gov; Peter Rosen; jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; Jean.White@kingcounty.gov; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan; Stacy Clauson; Robert Grumbach; Skowlund, Peter (ECY)
Cc: becky@marinellc.com; eride@msn.com; raa@vnf.com; Mark Nelson; donovan@donovantracy.com; vanskamok@verizon.net; Steve; Alan Foltz; Derek Jennings; Phil
Subject: ADDITIONAL NOTE ON RESULTS OF MEETING WITH DEPT OF ECOLOGY ON 10/17/2008 REGARDING SMP UPDATES
Attachments: Corps of Engineers RGP-6 Mitigation Offset Section and Table 003.jpg; Corps of Engineers RGP-6 Mitigation Offset Section and Table 004.jpg; Corps of Engineers RGP-6 Mitigation Offset Section and Table 005.jpg; Corps of Engineers RGP-6 Mitigation Offset Section and Table 006.jpg

Hi Everyone,

I failed to mention an important item we discussed during the meeting with DOE.

We discussed a Mitigation Offset Schedule to credit property owners with removal or modification of existing structures similar to what is offered in the Corps RGP-6 for Overwater Structures in Marine Waters. The Corps did not provide this same opportunity to applicants in the RGP-3 but consider the removal of existing structures although there is no method or documentation for how this is done. It also calculates the amount of mitigation points required to offset impacts from new structures. This chart could be modified in some way to fit projects specific to Lakes Washington and Sammamish.

A Mitigation Offset Schedule would provide a tangible and documented way for local planners and DOE to compare existing with proposed structures and proof that a project results in no net loss.

I have scanned and attached the pages from the Corps RGP-6 for your review.

Thanks,
Dave Douglas

From: Daved
Sent: Wednesday, October 22, 2008 9:16 AM
To: 'Cathy Beam'; 'MPaine@bellevuewa.gov'; 'Peter Rosen'; 'jding@ci.kenmore.wa.us'; 'EConkling@ci.renton.wa.us'; 'mvannostrand@ci.sammamish.wa.us'; 'Margaret.glowacki@seattle.gov'; 'mhgreen@comcast.net'; 'Harry.reinert@kingcounty.gov'; 'SBennett@ci.lake-forest-park.wa.us'; 'Pstewart@ci.kirkland.wa.us'; 'travis.saunders@mercergov.org'; 'Jean.White@kingcounty.gov'; 'george.steirer@mercergov.org'; 'Burcar, Joe (ECY)'; 'Matt.torpey@mercergov.org'; 'tswan@ci.kirkland.wa.us'; 'Stacy Clauson'; 'Robert Grumbach'; 'Skowlund, Peter (ECY)'
Cc: 'becky@marinellc.com'; 'eride@msn.com'; '; 'Mark Nelson'; 'donovan@donovantracy.com'; 'vanskamok@verizon.net'; Steve; Alan Foltz; Derek Jennings; Phil
Subject: RESULTS OF MEETING WITH DEPT OF ECOLOGY ON 10/17/2008 REGARDING SMP UPDATES

Dear Local Planner, SMP Point of Contact and Other Interested Parties,

ATTACHMENT 44

We (Waterfront Construction Permit Department) had a very productive and cordial meeting with Mr. Peter Skowlund and Mr. Joe Burcar from the WA Department of Ecology (DOE) on 10/17/2008 to discuss concerns on the direction and implementation of SMP Updates for Lake Washington and Lake Sammamish communities. We were presented with a draft of a 7 page letter that DOE has or will be distributed to each local government to address questions and concerns received by DOE over the past several months. We want to express our thanks to Mr. Skowlund and Mr. Burcar for listening to our concerns and acknowledging that there may have been some misunderstanding in that pier and bulkhead projects permitted and constructed over the past 5 to 10 years have actually resulted in improvements over previously existing conditions and impacts on listed species, critical habitat and ecological functions. The meeting was very cordial with some healthy discussion at times but DOE was very open to our thoughts and ideas and pleased to hear that positive changes had already been implemented. We also want to acknowledge and thank Becky Henderson of Marine Restoration for attending the meeting and providing valuable insight.

Below are the most important items discussed at the meeting and provide a quick review. Essentially, DOE agrees that local governments should provide an alternative process for redevelopment as long as they can support a “no net loss of ecological functions”. The information below is provided based on our meeting with DOE and review of their letter addressing questions and concerns. This is written from my recall of the meeting and if you have any questions you should consult with Mr. Skowlund or Mr. Burcar or review the Fall 2008 Guidance letter regarding validity of the information. I am also forwarding this to Mr. Skowlund and Mr. Burcar so the process remains as transparent as possible.

It is vital that those jurisdictions further along in the process (Redmond and Lake Forest Park) reconsider their development standards, especially for redevelopment of existing structures in light of the fact that projects can likely exceed previously promoted RGP-3 or other standards and still arrive at a “no net loss” outcome. Choosing no to do so will result in a local SMP falling well short of serving the best interests of your property owners living within 200 feet of the shoreline while still meeting the intent of “the act”.

- In the letter from DOE to local governments “no net loss” is defined as, “through implementation of the updated SMP, the existing condition of shoreline ecological functions should remain the same or be improved over time”. This goal is not solely based on guidelines contained in the RGP-3 for piers or in any type of literature targeting the removal or prohibition of bulkheads. For piers, this opens the way for new structures and more importantly the redevelopment of existing structures, regardless of size, as long as “no net loss” can be proven. For bulkheads, the same is true as long as a new bulkhead or repair or replacement of an existing bulkhead can prove “no net loss”. As a result, we believe “no net loss” can be established for nearly every redevelopment project and some new development projects by evaluating them at face value and without the need for costly consultation being placed on the local government or property owners. This is great news for everyone and should alleviate the need for a costly geotechnical analysis borne by a property owner to justify a bulkhead repair or replacement.

  The management strategy discussed at the bottom of page 3 of the Fall 2008 Guidance is and will be met on nearly all recent and future redevelopment projects and will actually result in a “net gain” or “restoration” of ecological functions at a specific site and therefore contribute positively to the ecological functions of the entire jurisdiction. Redevelopment meeting such a strategy should be encouraged both by local government and DOE as a means of meeting goals. At the top of page 4 the Guidance states, “Ecology suggests that local governments clearly distinguish between new and redevelopment standards to ensure adequate protection of existing ecological functions”. Redevelopment with reasonable and flexible site specific standards offers the best opportunity to do such a thing.

  RESULTING ACTION/RECOMMENDATION:
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The only way for local governments to accurately inventory the existing conditions would be to attain the existing amount of overwater coverage for docks in each zone and total them. This would serve as a baseline for future development and redevelopment. Short of doing such, the burden would be unfairly placed on property owners to prove their project has “no net loss”. This would hold true for bulkheads also and would support the redevelopment of such structures, especially where they are being replaced with a fish friendly design, shifted landward, involve a partial coved area or full removal, or include fill to provide shallow nearshore fish habitat and erosion protection at the base of the structure. Many bulkheads are not candidate for removal and very few property owners are willing to do a total removal but many are open to considering a combination of elements resulting in improvements that meet the “no net loss” goal. The requirement for any type of geotechnical analysis to justify a repair or replacement of an existing bulkhead places an undue and costly burden on the property owner. If a bulkhead repair or replacement shows that “the existing shoreline ecological functions” it should be accepted and encouraged at face value through consultation with a local planner who understands the intent of the SMP.

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ATTACHMENT 44

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Sincerely,

Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

ATTACHMENT 45

From: Paul Stewart
Sent: Tuesday, November 04, 2008 8:41 AM
To: Teresa Swan; 'CLAUSON Stacy A'
Subject: FW: Kirkland Shoreline Master Plan

From: Mark Nelson [mailto:nelsonmb@gte.net]
Sent: Monday, November 03, 2008 8:44 PM
To: drsmithortho@aol.com
Cc: Paul Stewart
Subject: RE: Kirkland Shoreline Master Plan

Dr. Smith, thanks for letting me know.

The person to direct your comments to is Paul Stewart, City of Kirkland Deputy Planning Director.

I have copied Mr. Stewart on this e-mail.

From: drsmithortho@aol.com [mailto:drsmithortho@aol.com]
Sent: Wednesday, October 22, 2008 5:03 PM
To: nelsonmb@gte.net
Subject: Kirkland Shoreline Master Plan

I own waterfront property in Kirkland, and I am VERY concerned about the proposed Shoreline Master Plan Update. Specifically the provision that would allow the City of Kirkland to REQUIRE modifications to EXISTING bulkheads before granting many building permits.

This is an UNACCEPTABLE provision, unnecessary and excessive.

I ask that it be stricken from the final form of the plan.

Thank you.

Dr. Craig Smith
535 5th Ave W.
Kirkland, WA 98033