



MEMORANDUM

To: Houghton Community Council

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

Date: May 19, 2008

Subject: Kirkland's Shoreline Master Program Update

I. RECOMMENDATION

Staff recommends that the Houghton Community Council complete the following:

1. Consider the revised draft policy language for the **Introduction, Shoreline Land Use, Shoreline Environment** and **Shoreline Parks, Recreation and Open Space** sections of the new Shoreline Chapter. These sections are found in Attachments 1 through 4. Please see Section II.1 of this memo, starting on page 2 for a summary of key changes since these policies were last reviewed by the Houghton Community Council.
2. Consider the new policies for **Shoreline Transportation, Shoreline Utilities, Shoreline Design**, and **Archaeological, Historic and Cultural Resources**. Please see Section II.2 through 5 of this memo, starting on page 4 for background information. These sections are found in Attachments 5 through 8. These policies have been reviewed by the Planning Commission and their recommended changes incorporated into the drafts in Attachments 5 through 8.
3. Review the Public Comments and responses provided to specific inquiries or comments addressing shoreline stabilization and shoreline vegetation contained in Section III starting on page 8 of this memo, together with Attachments 13-19.
4. Review and provide feedback on the upcoming Public Open House. The Public Open House is scheduled for Monday, June 9th. Community Council members are encouraged to attend this open house. Please see Section IV of this memo, starting on page 10 and Attachment 20 for further information.

II. GOALS AND POLICIES

1. Introduction and Land Use, Shoreline Environment, Shoreline Parks, Recreation and Open Space

The Houghton Community Council has previously completed a review of these draft policies at earlier meetings. Attachment 1 includes the most recent draft, with the following key changes made by staff in response to input from the Planning Commission, Houghton Community Council, and after reviewing public comments:

A. General.

- a. Some of the public comments received have requested that the scientific basis for the policy direction provided be included. In response, staff has included annotations to specific scientific studies. Please note that these studies are also referenced in the Shoreline Analysis report, upon which these policies have been based.
- b. There has also been concern expressed that subjective conclusions appear in a number of policies (SMP-3.3, SMP-17.3). Staff has proposed revisions to these policies in an attempt to respond to this issue and clarify the policy intent.
- c. Staff has added information about the WRIA 8 Chinook Salmon Conservation Plan into relevant policy provisions. The City has been involved in the preparation of the WRIA 8 Chinook Salmon Conservation Plan and has adopted a Resolution ratifying the Plan (see Attachment 17 containing R-4510). The Final WRIA 8 Chinook Salmon Conservation Plan can be accessed via the following link:
<http://dnr.metrokc.gov/WRIAS/8/chinook-conservation-plan.htm>.

One of the concepts within this adopted Resolution is to use the scientific foundation and the conservation strategy as the basis for local actions recommended in the plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities. It was also noted that the comprehensive list of actions, and other actions consistent with the Plan, should be used as a source of potential site specific projects and land use and public outreach recommendations.

Attachment 16 contains a list of Land Use Actions from the WRIA 8 Chinook Salmon Conservation Plan for North Lake Washington. The recommendations provided in Attachment 16 specifically apply to Kirkland and surrounding areas. A key recommendation from this Plan is to reduce bank hardening, restore overhanging riparian vegetation, and replace bulkheads and rip-rap with sandy beaches and gentle slopes.

- B. Introduction. Revised objectives per Houghton Community Council direction.
- C. Goal SMP-1. Paragraph 4 of supporting language has been clarified per Planning Commission and Houghton Community Council direction.

- D. Policy SMP-3.3. Public comments have expressed concern about the functions and value of shoreline vegetation. Staff has added information from the WRIA 8 Conservation Strategy, which provides additional scientific basis for this policy recommendation. Please see Section III for more detailed information on this issue.

At the March 24 meeting, the Houghton Community Council encouraged policy development for vegetation management with new development or substantial reconstruction projects. Policies SMP-3.3 in Attachment 2 and Goal 16 and related policies in Attachment 3 contain the recommended policies. View access to the lake was a concern and there was a desire to ensure that shoreline vegetation be designed in such a way as to not interrupt views. This language is included in Policy SMP-3.3. In addition, the Community Council did express concern about the use of regulatory flexibility, such as setback reductions and provisions for additional lot coverage in exchange for additional shoreline vegetation. In particular, there is concern about increasing lot coverage or shifting residences closer to the street in ways that would adversely impact views. There was also concern expressed that shoreline vegetation or habitat features not reduce physical access of the public to the lake. These are all issues that will be considered more closely as part of the regulation development for shoreline vegetation.

- E. Policy SMP-3.5 and 3.6. Added new policies addressing parking in response to requirements in the Washington State Guidelines. Please note that the Guidelines state that parking facilities in shorelines are not a preferred use and shall be allowed only as necessary to support an authorized use. The City's SMP is required to include policies and regulations to minimize the environmental and visual impacts of parking facilities.
- F. Policy SMP-3.7. Added new policy addressing lighting in the shoreline area.
- G. Policy SMP-7.2. This policy concerns development along the shoreline in the Central Business District. After additional review, staff is proposing revisions to this section to simplify the intent of the policy and ensure that the supporting language is more clearly tied to the policy intent. This was a policy that the Houghton Community Council had previous questions about and, as a result, staff would recommend review of the revised language.
- H. Policy SMP-7.3. Minor revisions to Policies addressing Carillon Point area.
- I. Goal SMP-9. Significantly revised. Planning Commission had requested changes to clarify the direction of the policy. Public comments received had expressed concern that the activities noted were already regulated. As a result of this input, staff has simplified the supporting language in this policy. Please note that the May 14, 2008 Kirkland Reporter contained a briefing about the Carillon Point Marina's recent certification as one of 34 "Clean Marinas" in the State by Clean Marina Washington, a partnership of government agencies, environmental advocates and marine businesses. Marinas certified under this program are recognized for their efforts to:
 - a. Reduce and properly manage hazardous waste;
 - b. Conduct marina operations with the goal of protecting the environment;

- c. Educate boaters of clean boating practices;
- d. Demonstrate innovation and environmental leadership.

It is wonderful to see a local marina recognized for their stewardship efforts. Please see the Clean Marina website for more details (<http://www.cleanmarinawashington.org/>).

- J. Policy SMP-10.6. This policy has been significantly revised to respond to additional information prepared by the City's environmental consultant in response to public comments (please see Section III starting on page 8 of this memo, together with Attachments 15-18, for more information on shoreline stabilization). At the Houghton Community Council's last meeting on this issue, there was discussion about the need for bulkheads and the design of bulkheads. The revised policies (see Policies SMP-10.9) note a range of enhancements that can be made, depending on the individual circumstances present at a piece of property. In addition, at the Community Council's last meeting, there was a desire to see more information on what opportunities or funding support there may be to allow a group of property owners to collectively retrofit existing bulkheads at one time. Staff is continuing to research approaches taken by other jurisdictions and plans to come back with more detailed information when specific regulations are considered. Further, as part of the Restoration Plan, a component of the Shoreline Master Program, the City will be trying to identify other potential options available to facilitate voluntary enhancement projects.

Also of note, the *Seattle Times* recently published an article on the impacts of new bulkheads along Puget Sound (see Attachment 21). Though this article specifically applies to Puget Sound, much of the information presented in the article is also applicable to Lake Washington.

- K. Policy SMP-10.7. Staff has proposed some changes to this policy section.
- L. Policy SMP-10.9. Significantly revised to include additional background information and issues to be considered when designing enhancement plans.
- M. Policy SMP-10.10. Staff has suggested some changes to provide additional background information and clarify the intent of the policy.
- N. Policy SMP-10.11. Significantly revised by staff to clarify policy intent.
- O. Policy SMP-13.1. Revised per Planning Commission direction.
- P. Goal SMP-18. Revised per Planning Commission direction.
- Q. Policy SMP-18.4. Added policy addressing unopened street ends.
- R. Policy SMP-20.3. Eliminated language in response to public comments. Language was not important to policy intent.
- S. Policy SMP-20.5. Revised per Planning Commission direction.

2. Shoreline Circulation

Shoreline Transportation

Under the State Guidelines, the City's SMP is required to include policies and regulations to provide safe, reasonable, and adequate circulation systems to, and through or over shorelines where necessary and otherwise consistent with these guidelines. Circulation system planning shall include systems for pedestrian, bicycle, and public transportation where appropriate. Draft goal SMP-22 and its related policies address streets, while Goal SMP-23 and its related policies address pedestrian and bicycle circulation. Draft goal SMP-24 and its related policies have also been included to address transportation alternatives, including access via air and water.

Staff Analysis: There are a couple of key policy issues in this section that staff would recommend discussing, including proposed policies on helicopters and floatplanes, as well as policies on pedestrian circulation.

Helicopter and Floatplane Use

Under the City's current Shoreline Master Program, aircraft moorage is prohibited (KMC 24.05.165(i)) The City's codes do not address the operation of floatplanes within the City, except within KMC 14.44.020, which states that "All vessels or watercraft shall keep clear of aircraft landing within any area now or hereafter set aside by law for such purpose. Aircraft on the water shall keep clear of all vessels and watercraft and avoid impeding their navigation." As a result, the commercial operation of floatplanes for air charter and scheduled air operations is not specifically addressed and should be clarified with the SMP Update. At this time, staff is requesting that the Houghton Community Council make a policy recommendation on the following issues:

- *Should commercial floatplane operations, such as air charter and scheduled air operations, be permitted along shoreline Business Districts such as the Downtown and Carillon Point? If so, should the operators be permitted to moor the floatplane at the facility?*
- *Should private residential property owners be permitted to moor a floatplane at their residential property?*

The primary issue to consider is one of community character. Potential noise impacts are likely to be a concern, and staff could evaluate standards as part of the development of regulations that would address operations in order to minimize these types of impacts, if the Planning Commission and Community Council decide to conceptually move forward with policy direction to allow commercial floatplane facilities. In reviewing this issue with the Parks Department, the Department has indicated that it would like the flexibility in the future to explore operation of commercial floatplane facilities out of the City's marina.

The following jurisdictions have specifically addressed these facilities:

- *In its current SMP, the City of Seattle allows water-based aircraft facilities in the Urban Maritime Environment by the Director as either principal or accessory uses if approved under a Special Use Approval, after consideration of the following:*
 - *That the proposed use will be consistent with the policies of RCW 90.58.020 and the Shoreline Policies;*

- *That the proposed use will not interfere with the normal public use of public shorelines;*
- *That the proposed use of the site and design of the project will be compatible with other permitted uses within the area;*
- *That the proposed use will cause no unreasonably adverse effects to the shoreline environment in which it is to be located; and*
- *That the public interest suffers no substantial detrimental effect.*
- *In their draft SMP, the City of Redmond is proposing to allow private non-commercial float plane landing and mooring facilities on Lake Sammamish, with restrictions on the proximity to critical areas and public swimming beaches.*
- *In contrast, the City of Des Moines currently prohibits the operation of aircraft on the waters of the marina except under emergency conditions.*

At this time, staff is recommending that the City continue to prohibit floatplane moorage within residential areas, but expand the current provisions to allow for floatplane moorage for limited commercial floatplane operations. Staff is recommending this approach to respond to a future potential demand for air access to Kirkland business districts, while limiting the overall area where moorage could occur due to potential noise and other community character impacts. The draft policies on this issue are contained in Attachment 5, Policy SMP-24.2. The Planning Commission has conceptually concurred with staff on this policy direction for limited operations in commercial districts subject to a public review process (e.g. for occasional flights) with the understanding that standards for these facilities will need to be closely evaluated during the next phase of regulation development in order to minimize impacts. Issues to consider include frequency of flights, type of operation, timing restrictions, noise restrictions, and other operational standards to limit impacts.

With regard to helicopters, the following is an article from the Seattle Times about a situation that has arisen in Renton involving a helipad on private residential property along the shoreline:
http://seattletimes.nwsources.com/html/localnews/2004315720_helipad30m.html (see Attachment 9).
Staff is proposing a policy about helicopter use in the SMP, so that we clearly address whether or not helicopter landing facilities would be permitted within the shoreline area. In the draft policy (see Attachment 5, Policy SMP-24.3) staff is recommending that helicopter facilities not be permitted within the shoreline area. The Planning Commission has concurred with staff on this policy direction.

Pedestrian Circulation

The map included in Attachment 10 shows proposed pedestrian walkways or sidewalks. This map has been compiled from the Neighborhood Plans for those neighborhoods located in the shoreline (Lakeview, Moss Bay, Market, and Juanita Neighborhoods) as well as the 2001 Non-Motorized Transportation, with the exception of the following:

- *The 2001 Non-Motorized Transportation Plan depicts a new waterfront trail located along the shoreline within the Yarrow Bay Wetlands. Staff is recommending very limited access in this area, because of the high value and uniqueness of the habitat in the Yarrow Bay wetland. Staff has conferred with the Parks Board, who has also recommended that the waterfront trail through the Yarrow Bay wetlands not be included on this map.*

Public Access

The Shoreline Management Act requires SMPs to provide for public access to publicly-owned shorelines [RCW 90.58.100(2)(b)]. Public access to public shorelines is also a preferred use on shorelines of statewide significance owned by the public [RCW 90.58.020(5)]. Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations. The intent is for local governments to plan for an integrated shoreline area public access system that identifies specific public needs and opportunities to provide public access. Under the State Guidelines, Kirkland's SMP is required to:

- Establish policies and regulations that protect and enhance both physical and visual public access. The master program should seek to increase the amount and diversity of public access to the state's shorelines consistent with the natural shoreline character, property rights, public rights under the Public Trust Doctrine, and public safety.
- Provide standards for the dedication and improvement of public access in developments for water-enjoyment, water-related, and nonwater-dependent uses and for the subdivision of land into more than four parcels. In these cases, public access should be required except:
 - Where the local government provides more effective public access through a public access planning process described in WAC [173-26-221](#) (4)(c).
 - Where it is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment or due to constitutional or other legal limitations that may be applicable.
 - For individual single-family residences not part of a development planned for more than four parcels.

Draft Goal SMP-23 and related policies SMP-23.1 through SMP-23.4 in Attachment 5 include policies addressing public access.

Staff Analysis: Under the City's current SMP, all uses, developments and activities must provide public pedestrian access from the right-of-way to and along the entire waterfront of the subject property at or close to the high waterline, except for the following:

- *The construction, repair, remodeling and use of one detached dwelling unit, as well as the construction, remodeling, repair and use of bulkheads, docks, and other uses, developments and activities incidental to the use of the subject property as habitation for one family.*
- *All uses, development and activity in conservancy environments, or environmentally sensitive areas where the city determines that access would create distinct and unavoidable hazards to human safety or be contrary to city policies regarding the protection of unique and fragile environments.*

The citizens who attended the two September, 2006 forums said that they most value the great public access to the lake. The proposed policies on shoreline public access are a continuation of the policy goals for public access contained in the current SMP (see Attachment 11), which have been successful in establishing an extensive waterfront public access trail system in Kirkland.

A shoreline property owner testified at the March 13th Houghton Community Council meeting about public access, and wanted to ensure that public access trails not be required for single family lots. Both the current and proposed policy would not require public access for construction or one detached dwelling unit.

3. Shoreline Utilities

Under the State Guidelines, the City's SMP is required to include provisions to assure that:

- All utility facilities are designed and located to assure no net loss of shoreline ecological functions, preserve the natural landscape, and minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations in areas planned to accommodate growth.
- Utility production and processing facilities, such as power plants and sewage treatment plants, or parts of those facilities that are nonwater-oriented, shall not be allowed in shoreline areas unless it can be demonstrated that no other feasible option is available.
- Transmission facilities for the conveyance of services, such as power lines, cables, and pipelines, shall be located outside of the shoreline area where feasible and when necessarily located within the shoreline area shall assure no net loss of shoreline ecological functions.
- Utilities should be located in existing rights of way and corridors whenever possible.
- Development of pipelines and cables on tidelands, particularly those running roughly parallel to the shoreline, and development of facilities that may require periodic maintenance which disrupt shoreline ecological functions should be discouraged except where no other feasible alternative exists. When permitted, provisions shall assure that the facilities do not result in a net loss of shoreline ecological functions or significant impacts to other shoreline resources and values.

Draft Goal SMP-25 and related policies in Attachment 6 include policies addressing utilities.

4. Shoreline Design

Under the State Guidelines, the City's SMP is required to include provisions, such as maximum height limits, setbacks, and view corridors, to minimize the impacts to existing views from public property or substantial numbers of residences. Under the public access provisions, the City should also ensure that it is accommodating the ability of the general public to view the water and the shoreline from adjacent locations. Draft goal SMP-26 and related policies in Attachment 7 include policies addressing shoreline design. Attachment 12 also includes a map depicting existing areas of public views.

Staff Analysis: The map included in Attachment 12 depicts existing public views to the Lake. This map has been compiled from the Neighborhood Plans contained in the Comprehensive Plan, with additions made by staff in several locations (e.g new parks added since the Neighborhood Plan was developed). Staff is requesting that the Houghton Community Council review this preliminary map to determine whether any additional public viewscapes should be included or whether any public views shown should be eliminated from the map.

5. Shoreline Archaeological, Historic and Cultural Resources

Under the State Guidelines, the City's SMP is required to include policies and regulations to protect historic, archaeological, and cultural features and qualities of shorelines. Draft goal SMP-27 and policies SMP-27.1 through SMP-27.2 in Attachment 8 include policies addressing Shoreline Archaeological, Historic and Cultural Resources.

III. PUBLIC COMMENTS ON POLICIES

A summary of the public comments received to date is included in Attachment 13.

Some of the public comments provided have expressed concern that the Kirkland shoreline is not well suited for the shoreline enhancement projects contemplated in the policy language because of the high wave fetch and boat waves (see Attachments 13 and 14). To ensure that bioengineered shoreline stabilization and enhancement are a viable option, staff has requested the City's consulting environmental firm, the Watershed Company, to address and respond to this issue. Their response is included in Attachment 15, wherein they have concluded that virtually all sites have some potential for restoration on the broad continuum; the degree of shoreline restoration possible at a site is dependent upon a number of variables, including:

- 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, and
- location of residence, utilities, or other built structures relative to the shoreline edge.

The information provided in this letter has also been used to provide additional policy background to SMP-11.9 in Attachment 2.

Some of the public comments have also brought up concerns about the feasibility and practicality of installing vegetation along the shoreline. Staff requested the City's consulting environmental firm, the Watershed Company, to provide information on the value of riparian vegetation. Their response is included in Attachment 15, wherein they have concluded that riparian vegetation can provide the following benefits to lakes and lake-associated wildlife:

- Water Quality (sediment and pollution removal)
- Bank Stabilization (erosion control)
- Shade and temperature moderation
- Microclimate
- Wildlife habitat
- In-lake habitat (woody debris)
- Productivity (insects, smaller organic debris – even when vegetation is not overhanging the water, these items enter the water via winds or surface water runoff)

As noted in this letter, riparian vegetation installation can occur across the enhancement continuum, even in situations where there is limited depth from an existing structure to a bulkhead.

As part of the September, 2006 shoreline forums, there was discussion on these topics, with attendees encouraging the update to the SMP to address issues of shoreline stabilization and vegetation, with specific feedback as follows:

- Provide a healthy environment along the shoreline to preserve fish and wildlife and their habitats.
- Provide a wider range of incentives for people to restore their shorelines or engage in other activities which help achieve the City's goals for preserving and protecting the shoreline.
- With redevelopment or new construction, require a "softer front" on the shoreline.

Also, it is important to note that the scientific basis for these regulations is also based on recommendations stemming from the WRIA 8 Chinook Salmon Conservation Plan. Attachment 16 contains a list of Land Use Actions from the WRIA 8 Chinook Salmon Conservation Plan for North Lake Washington. The recommendations provided in Attachment 16 specifically apply to Kirkland and surrounding areas. A key recommendation from this Plan is to reduce bank hardening, restore overhanging riparian vegetation, and replace bulkheads and rip-rap with sandy beaches and gentle slopes. It is important to note that the City has participated in the preparation of and has adopted a Resolution ratifying this Plan (see Attachment 17 containing R-4510).

Staff would continue to recommend that the City provide strong guidance to reduce bank hardening and establish shoreline riparian vegetation. Based on the scientific findings communicated in the WRIA 8 Chinook Salmon Conservation Plan, these actions are needed as part of the overall conservation strategy for Chinook Salmon recovery. Staff believes that the direction provided in the draft policies (see Policy SMP-3.3 in Attachment 2, and Goal SMP-16 and related policies in Attachment 3 for shoreline vegetation; see Policies SMP-10.6 through 10.11 in Attachment 2 for shoreline stabilization) respond to the objectives established for the SMP Update, which in part noted the desire to protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitat.

Please note that the City did receive a subsequent letter from Mr. Sandaas in response to these materials (see Attachment 18). The Planning Commission has requested that staff provide information in response to these additional comments; staff is continuing to work on this issue and will provide more follow-up information at a later meeting.

Finally, the City has received a letter from David Douglas of Waterfront Construction addressing the Shoreline Master Program and specifically overwater structures such as piers, as well as bulkheads (see Attachment 19). Staff is recommending that the issues brought forward in this letter be addressed in detail during the regulation development phase of this project, which is set to begin later this year. Staff anticipates that we will be forming focus groups to discuss potential regulations for these topic areas and will be gathering more information to share with the Houghton Community Council on these topics. Also of note, the Department of Ecology has provided initial direction to the City on the topic of overwater structures and has noted that local governments are required to meet a standard of no net loss of ecological functions as part of our update process and cannot depend on the regulatory authority of other independent resource agencies to satisfy this no net loss requirement. With respect to concerns expressed about the issue of flexibility in our approach to regulations addressing piers, DOE has advised that the City

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should seek to create clear standards that are consistent with other agencies and allow for streamlined permitting 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. One of the key challenges in approaching this issue is to allow 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 ensure no net loss.

IV. OPEN HOUSE

Staff has scheduled a Public Open House on the SMP Update for Monday, June 9th. Community Council members are encouraged to attend this open house. Attachment 20 contains a draft of the public notice that will be distributed for the Open House, as well as a preliminary outline of the activities planned as part of the Open House. Notice will be provided to all property owners and residents within the shoreline jurisdiction, members of the Shoreline listserv, local and state agencies and non-governmental organizations, as well as a broader notice to the public in media outlets, to Neighborhood Associations, on public notice boards, and other venues. Please review these items and provide input to staff on this public event.

VI. ATTACHMENTS

1. Draft SMP Goal and Policy Language for the Introduction
2. Draft SMP Goal and Policy Language for the Shoreline Land Use Section
3. Draft SMP Goal and Policy Language for the Shoreline Environment Section
4. Draft SMP Goal and Policy Language for the Shoreline Parks, Recreation and Open Space Section
5. Draft SMP Goal and Policy Language for the Shoreline Transportation Section
6. Draft SMP Goal and Policy Language for the Shoreline Utilities Section
7. Draft SMP Goal and Policy Language for the Shoreline Design Section
8. Draft SMP Goal and Policy Language for the Archaeological, Historic and Cultural Resources Section
9. "Helicopter use divides neighborhood in Renton", Seattle Times, March 30, 2008
10. Map of Shoreline Pedestrian System
11. KMC 24.05.065 Public access element goal and policies
12. Map of Shoreline Public Views
13. Table Summarizing Public Comments
14. Letter from Richard K. Sandaas dated April 10, 2008
15. Letter from the Watershed Company "Response to Issues Raised..."
16. Comprehensive Action List for North Lake Washington Tributaries, WRIA 8 Conservation Strategy
17. Resolution 4510
18. Letter from Richard K. Sandaas dated May 8, 2008
19. May 1 and May 2, 2008 e-mail and letter from David Douglas, Waterfront Construction
20. Open House Notice and Outline
21. "Beaches suffer as walls go up", Seattle Times, May 13, 2008

cc: File No. ZON06-00017, Sub-file #2

Introduction

Statutory Framework

The City of Kirkland manages the shoreline environment through implementation of the Shoreline Master Program. The Washington State Shoreline Management Act (SMA) provides guidance and prescribes the requirements for locally adopted Shoreline Master Programs. The goal of the SMA, passed by the Legislature in 1971 and adopted by the public in a 1972 referendum, is to “prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines”. The SMA establishes a broad policy giving preferences to uses that:

- Protect shoreline natural resources, including water quality, vegetation, and fish and wildlife habitat;
- Depend on the proximity to the shoreline (i.e. “water dependent uses”);
- Preserve and enhance public access or increase recreational opportunities for the public along shorelines.

The SMA establishes a balance of authority between local and state government. Under the SMA, Kirkland adopts a shoreline master program that is based on state guidelines but tailored to the specific needs of the community. The program represents a comprehensive vision of how shoreline areas will be used and developed over time.

The Department of Ecology has issued State guidelines for Shoreline Master Programs in WAC 173-26. The guidelines are intended to assist local governments in developing master programs, which must be accepted and approved by the Department of Ecology as meeting the policy objectives of the SMA established under RCW 90.58.020 as well as the criteria for state review of local master programs under RCW 90.58.090.

Vision

The City of Kirkland’s identity is strongly influenced and defined by its waterfront setting. Views of Lake Washington give Kirkland its sense of place and the City’s integrated network of trails, parks, and open spaces along the shoreline provide abundant opportunities for public access to the shoreline. The City’s waterfront parks provide places and host events where people can gather and interact. Kirkland’s shoreline commercial districts also provide opportunities for residents and visitors to enjoy the City’s unique natural setting along the shoreline. The waterfront provides many varied recreational opportunities to meet the needs of Kirkland citizens and provides a gateway to the City. It also provides vital habitat for fish and wildlife and the natural systems within the shoreline serve many essential biological, hydrological and geological functions.

The shoreline zone is one of the most valuable and fragile of Kirkland’s natural resources and, as a result, the utilization, protection, restoration, and preservation of the shoreline zone must be carefully considered.

The City developed its first Shoreline Master Program in 1974 as a component of the Comprehensive Plan. Key considerations within this plan and subsequent amendments have included conservation, public access to the shoreline, and the guidance for water-oriented recreational uses to locate along the Kirkland shoreline. These initial policy objectives are reflected in today’s protection of the City’s significant natural areas as open space, as well as the extensive shoreline trail system and network of shoreline parks which have been established over time.

~~Yet, o~~Over the significant time that has spanned since the original adoption of the City's first Shoreline Master Program, there have been substantial changes to the lakefront environment. Industrial uses, such as the shipyard previously located at Carillon Point, have left Kirkland's shoreline. The City has added significant publicly owned properties to our waterfront park system, most significantly the Yarrow Bay wetlands, Juanita Bay Park, Juanita Beach Park, and David E. Brink Park. Water quality within Lake Washington, once severely impacted by nutrient loading from sewage, has remarkably improved since regional wastewater treatment plants were constructed and the final plant discharging directly into the lake was closed in 1967.

The lake environment has also been impacted by new challenges. The shoreline character has continued to change over time, as additional docks and bulkheads have been built, contributing to a loss of woody debris and other complex habitat features along the shoreline. Impervious surfaces have increased both within the shoreline area and in adjacent watersheds and this, together with consequent reduction in soil infiltration, has been correlated with increased velocity, volume and frequency of surface water flows. These and other changes have impacted the habitat for salmonids, ~~resulting in~~ in 1999, the listing of chinook salmon and bull trout were listed as Threatened under the Federal Endangered Species Act in 1999. The region's response to this listing has resulted in new scientific data and research that has improved our understanding of shoreline ecological functions and their value in terms of fish and wildlife, water quality, and human health.

To address these changes, comply with the mandates of the Shoreline Management Act, and enable the City to as well as plan for emerging issues, the City has initiated an extensive update of its Shoreline Master Program. The new program is needed to respond to current conditions and the community's vision for the future.

In updating the program, the City's primary objectives are to:

- Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
- ~~Provide a healthy environment along the shoreline to enable current and future generations to enjoy using it.~~
- Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
- ~~Provide a healthy environment along the shoreline to preserve fish and wildlife and their habitats.~~
- Protect the City's investments as well as those of property owners along and near the shoreline.
- Produce an updated Shoreline Master Program (SMP) that is supported by Kirkland's elected officials, citizens, property owners and businesses, the State of Washington, and other key interest groups with an interest in the shoreline.
- Efficiently achieve the SMP mandates of the State.

The City of Kirkland, through adoption of the Shoreline Master Program, intends to implement the Washington State Shoreline Management Act (RCW 90.58) and its policies, including protecting the State's shorelines and their associated natural resources, planning for and fostering all reasonable and appropriate uses, and providing opportunities for the general public to have access to and enjoy shorelines.

The City of Kirkland's Shoreline Master Program represents the City's participation in a coordinated planning effort to protect the public interest associated with the shorelines of the State while, at the same time, recognizing and protecting private property rights consistent with the public interest. The Program preserves the public's opportunity to enjoy the physical and aesthetic qualities of shorelines of the State and protects the functions of shorelines so that, at a minimum, the City achieves a 'no net loss' of ecological functions, as evaluated under the

Final Shoreline Analysis Report issued in December 2006. The Program also promotes restoration of ecological functions where such functions are found to have been impaired, enabling functions to improve over time.

The goals and policies of the SMA constitute one of the goals for growth management as set forth in RCW 36.70A.020 and, as a result, the goals and policies of this SMP serve as an element of Kirkland's Comprehensive Plan and should be consistent with other elements of the Comprehensive Plan. In addition, other portions of the SMP adopted under chapter 90.58 RCW, including use regulations, are considered a part of the city's development regulations.

Organization

The policies are grouped under four sections: Shoreline Land Use, Shoreline Parks, Open Space/Parks and Recreation, Natural Shoreline Environment and Transportation. The Shoreline *Land Use* section works together with other policies of the Shoreline Master Program contained in this Chapter of the Comprehensive Plan. The Shoreline Land Use section addresses the general distribution and location of shoreline uses, the Shoreline Parks, Open Space and Recreation/~~*Open Space/Parks*~~ section more specifically addresses issues of public park operations and maintenance and standards for private shoreline recreation uses and modifications. The ~~*Natural*~~ *Shoreline Environment* section more specifically addresses shoreline critical areas, water quality, vegetation, and shoreline modifications such as filling and dredging. The *Transportation* section addresses both public access and circulation within the shoreline area.

Shoreline Master Program Goals and Policies

Shoreline Land Use

Goal SMP-1: Provide a high quality shoreline environment where land use pattern along the shoreline that reflects the following priorities:

- (1) -Natural systems are preserved. Recognize and protect the statewide interest over local interest;***
- (2) Preserve the natural character of the shoreline; Ecological functions of the shoreline are maintained and improved over time.***
- (3) The public enjoys access to and views of the lake. Result in long term over short term benefit;***
- (4) Recreational opportunities are abundant. Protect the resources and ecology of the shoreline;***
- (5) Increase public access to the shoreline;***
- (6) Increase recreational opportunities for the public in the shoreline;***

The Kirkland shoreline forms the western boundary of the City and encompasses 32,238 lineal feet (6.1 miles) of Lake Washington waterfront. A significant portion of the City's shoreline is area zoned or designated as park/open space. Approximately 57 percent of the area within the shoreline jurisdiction, or a total of 132.7 acres of the shoreline, are within areas designated as park or open space. Except for a few anomalies, the high-functioning portions of the shoreline have been appropriately designated and preserved within these areas. The City's extensive network of parks also provides the public with significant access opportunities throughout the City.

Much of the remaining shoreline is fully developed with single-family residential uses or areas of concentrated, compact development containing commercial, multifamily, or mixed-uses. In general, this pattern of land use is stable and only minimal changes are anticipated in the planning horizon. Redevelopment on some properties may result in single-family residences converting over time to multifamily or with new commercial or mixed-uses replacing existing commercial uses. Given the lack of existing vacant land (only 10 percent of the land within the shoreline is vacant, and much of that is encumbered by sensitive areas), additional housing or commercial square footage within the shoreline area will come over time as redevelopment and additions occur to existing developed properties.

Management of the shoreline area will need to carefully balance and achieve both shoreline utilization and protection of ecological functions. To protect valuable shoreline resources, the Shoreline Master Program limits the extent and character of a number of land uses and activities. Shoreline policies allow for a broad range of uses within the shoreline, while establishing limits to protect these shoreline resources and adjacent uses.

Shoreline policies aimed at protecting the natural environment address issues at both a broader scale, focusing on natural systems, as well as at the scale of ecological functions, which are the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

Issues that must be addressed by the Shoreline Use Element include:

- How to manage new growth and redevelopment to be sensitive to and not degrade habitat, ecological systems and other shoreline resources.
- How to foster those uses that are unique to or depend on the proximity to the shoreline or provide an opportunity for substantial numbers of the people to enjoy the shoreline.
- How to ensure that land uses and shoreline activities are designed and conducted to minimize damage to the ecology of the shorelines and/or interference with the public's use of the water and, where consistent with public access planning, provide opportunities for the general public to have access to the shorelines.
- How to protect the public right of navigation and ensure that uses minimize any interference with the public's use of the water.

Policy SMP-1.1 Allow for a diversity of appropriate uses within the shoreline area consistent with the varied character of the shorelines within the city.

The City's shoreline area is a collection of varied neighborhoods and business districts, each containing their own distinctive ~~land use pattern character~~ as well as biological and physical ~~character condition along of~~ the shoreline. Kirkland's shorelines contain valuable natural amenities, providing critical habitat for fish and wildlife within the Juanita Bay and Yarrow Bay wetlands, two high-functioning natural areas. The shoreline also contains portions of several business districts, each with its own distinctive identity, including the Central Business District, Juanita Business District, and Carillon Point. Medium to high density residential and commercial uses are located to the south of the Central Business District. The shoreline in these more urban areas is heavily altered with shoreline armoring, overwater coverage, and impervious areas. Single-family residential uses are prevalent in the area north of the Central Business District. The City also contains a system of waterfront parks, which provide a broad range of passive and active recreational activities and environmental protection.

Policy SMP-1.2 Preserve and enhance the natural and aesthetic quality of important shoreline areas while allowing for reasonable development to meet the needs of the city and its residents.

These different and unique shoreline areas each contain qualities that contribute to Kirkland's shoreline identity, including waterfront orientation, shoreline public views and access, numerous and diverse recreational opportunities, abundant open space, natural habitat, and waterfront access trails. The Shoreline Master Program should seek to support these and other features which significantly contribute to the City's desired character along the shoreline.

Policy SMP-1.3 Maintain existing and foster new uses that are dependent upon, or have a more direct relationship with the shoreline and Lake Washington.

Certain shoreline uses are more dependent on, or have a more direct relationship with the shoreline than others. The Shoreline Management Act requires that shoreline master programs give priority to:

- Water-dependent uses. A water-dependent use is dependent on the water by reason of the intrinsic nature of its operations, and cannot exist in any other location. Examples include swimming beaches,

boat launches, boat ~~dock~~piers, and marinas. Industrial water-dependent uses, such as ship building facilities, are not currently found nor are planned along the City's waterfront. The Kirkland waterfront contains several facilities that would be considered water-dependent uses. The City contains one public marina and several private marinas. Large private commercial marinas include Carillon Point Marina, Yarrow Bay Marina and Kirkland Yacht Club. The Yarrow Bay Marina contains a retail fuel service facility for boats, while the tour boat operators working out of the City's public marina provide shoreline tours. The City should encourage these water-dependent uses to remain.

- Water-related uses. A water-related use is dependant on a shoreline location because it has a functional requirement associated with a waterfront location, such as the transport of goods by water, or uses that support water-dependant uses. -Examples include boat sales and outfitters and manufacturers that transport goods by water. These uses are typically not located along Kirkland's shoreline, though the Yarrow Bay Marina contains a boat repair and service facility.
- Water-enjoyment uses. A water enjoyment use is a recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use, or a use that draws substantial numbers of people to the shoreline and that provides opportunities, through its design, location or operation, for the public to enjoy the physical and aesthetic benefits of the shoreline. Examples include parks and trails, museums, restaurants, and aquariums. Water enjoyment uses such as restaurants, retail stores, and offices are the primary commercial use along Kirkland's shoreline.
- Single family residential uses. There ~~is~~ City contains ~~is a~~ single-family residential neighborhood in the shoreline area within the Market Neighborhood.
- Shoreline recreation. The shoreline contains an extensive network of open spaces and public parks along the shoreline, providing places for fishing, swimming, boating, wildlife viewing and other recreational and educational activities.

Shoreline Environment Designations

Goal SMP-2: Provide a comprehensive shoreline environment designation system to categorize Kirkland's shorelines into similar shoreline areas to guide the use and management of these areas.

Environment designations are analogous to zoning designations for areas under SMP jurisdiction. 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.

Managing Shoreline Land Uses

Goal SMP-3: ~~Shoreline uses shall be~~ located, ~~designed and manage~~ shoreline uses ~~d~~ to prevent and, where possible, restore significant adverse impacts on water quality, fish and wildlife habitats, the environment and other uses.

It is important that shoreline development be regulated to control pollution and prevention of damage to the natural environment. Without proper management, shoreline uses can cause significant damage to the shoreline

area through cumulative impacts from shoreline armoring, stormwater runoff, introduction of pollutants, and vegetation modification and removal.

Given existing conditions, there is very little capacity for future development within the shoreline. However, it is anticipated that expansion, redevelopment or alteration to existing development will occur over time. With remodeling or replacement, opportunities exist to improve the shoreline environment. In particular, improvements to nearshore vegetation cover and reductions in impervious surface coverage are two key opportunity areas on private property to restore ecological function along the shoreline. Reduction or modification of shoreline armoring and reduction of overwater cover and in-water structures provide other opportunities.

Policy SMP-3.1 Establish development regulations that avoid, minimize and mitigate impacts
~~Shoreline Master Program development regulations shall ensure no net loss of to the ecological functions associated with the shoreline zone.~~

In deciding whether to allow uses and activities in shoreline areas, the potential adverse impacts associated with uses or activities should be considered and avoided, where possible. This can be done by carefully selecting allowed uses, providing policies and standards to prevent or minimize adverse impacts, and carefully reviewing development proposals to prevent or minimize adverse impacts.

Policy SMP-3.2 Provide adequate setbacks and buffers from the water and ample open space and pervious areas to protect natural features and minimize use conflicts.

The purpose of a setback is to minimize potential impacts of adjacent land uses on a natural feature, such as Lake Washington, and maximize the long-term viability of the natural feature. Setbacks perform a number of significant functions including reducing water temperature; filtering sediments and other contaminants from stormwater; reducing nutrient loads to lakes; stabilizing stream banks with vegetation; providing riparian wildlife habitat; maintaining and protecting fish habitats; forming aquatic food webs; and providing a visually appealing greenbelt and recreational opportunities.

Establishing the width of a setback so it is effective depends on the type and sensitivity of the natural feature and the expected impacts of surrounding land uses. In determining appropriate setbacks in the shoreline jurisdiction, the City should consider shoreline ecological functions as well as aesthetic issues.

Policy SMP-3.3 Require ~~new~~ development or ~~redevelopment~~ should to include establishment or preservation of appropriate shoreline vegetation to contribute to the ecological functions of the shoreline area, ~~while still allowing for view protection.~~

Shoreline vegetation plays an important role in maintaining temperature, removing excessive nutrients, attenuating wave energy, removing sediment removal and stabilizing banks, and providing woody debris and other organic matter along Lake Washington.

The ~~Final~~ WRIA 8 Conservation Strategy Chinook Salmon Conservation Plan notes the importance of providing a vegetated riparian/lakeshore buffer and overhanging riparian vegetation to improve the habitat for juvenile Chinook salmon. As a result, when substantial new upland development occurs, the on-site landscaping should be designed to incorporate native plant buffers along the shoreline. Proper plant selection and design should be done to ensure that views are not diminished.

~~A native plant buffer can also provide homeowners with an attractive landscape that offers variety and seasonal color; reduced maintenance; more privacy without sacrificing views; increased property values; improved water quality; and a yard that is safer for families, pets and the planet. Proper plant selection and design can ensure that views are not diminished.~~

Policy SMP-3.4 ~~Development should~~ incorporate low-impact development practices, where feasible, to reduce the amount of impervious surface area.

Low impact development strives to mimic nature by minimizing impervious surface, infiltrating surface water through biofiltration and bio-retention facilities, retaining contiguous forested areas and maintaining the character of the natural hydrologic cycle. Utilizing these practices can have many benefits, including improvement of water quality and reduction of stream and fish habitat impacts.

Policy SMP-3.5 Limit parking within the shoreline area.

~~Facilities providing public parking are permitted within the shoreline area as needed to support adjoining water oriented uses. Private parking facilities should be allowed only as necessary to support an authorized use. All parking facilities, wherever possible, should be located out of the shoreline area.~~

Policy SMP-3.6 Minimize the aesthetic impacts of parking facilities.

~~—————Parking areas should be placed, screened, and buffered to mitigate impacts through use of design techniques, such as location, lidding, landscaping of other similar design features to minimize the aesthetic impacts of parking facilities. Exterior parking areas should be located away the shoreline or attractively landscaped with vegetation that will not obstruct views of the lake from the public right-of-way.~~

Policy SMP-1.5

Policy SMP-3.7: Limit outdoor lighting levels in the shoreline to the minimum necessary for safe and effective use.

~~Artificial lighting can be used for many different purposes along the waterfront, including to aid in nighttime activities that would be impossible or unsafe under normal nighttime conditions, for security, or simply to make a property more attractive at night. At the same time, the shoreline area can be vulnerable to impacts of light and glare, potentially interrupting the opportunity to enjoy the night sky, impacting views and privacy and affecting the fish and wildlife habitat value of the shoreline area. To protect the scenic value, views, and fish and wildlife habitat value of shoreline areas, excessive lighting is discouraged. Shoreline development should use sensitive waterfront lighting to balance the ability to see at night with the desire to preserve the scenic and natural qualities of the shoreline. Parking lot lighting, lighting on structures or signs, and pier and walkway lighting should be designed to minimize excessive glare and light trespass onto neighboring properties and shorelines.~~

Policy SMP-3.8 Encourage the development of joint-use overwater structures, such as joint use dockpiers, to reduce impacts to the shoreline environment.

The presence of an extensive number of ~~deck~~ piers has altered the shoreline. The construction of piers can modify the aquatic ecosystem by blocking sunlight and creating large areas of overhead cover. Minimizing the number of new ~~deck~~ piers by using joint facilities is one technique that can be used to minimize the effect of piers on the shoreline environment.

Policy SMP-3.6-9 Allow variations to development standards that are compatible with surrounding development in order to facilitate restoration opportunities along the shoreline.

The City should consider appropriate variations to development standards to maximize the opportunities to restore shoreline functions. For example, reductions in setbacks could be used to facilitate restoration in highly altered areas that currently provide limited function and value for such attributes as large woody debris recruitment, shading, or habitat.

Goal SMP-4: ~~The Shoreline Master Program should~~ incorporate a variety of management tools, including improvement of City practices and programs, public acquisition, public involvement and education, incentives, and regulation and enforcement to achieve its goals for the shoreline area.

Because Kirkland's natural resources are located on both public and on private land, a variety of approaches is needed for effective management of the shoreline. Kirkland should ensure that it uses a mix of public education and involvement, acquisition, program funding, and improvement of City practices on City land, together with regulation and enforcement.

Goal SMP-5: ~~While implementing the Shoreline Master Program, Ensure that private property rights should be~~ are respected.

A significant portion of Kirkland's shoreline is located in private ownership. Aspects of the Shoreline Master Program, including development regulations, setback requirements, environmental regulations and other similar regulatory provisions may take the form of limitations on the use of private property. In establishing and implementing these types of land use controls, the City should be careful to consider the public and private interests as well as the long term costs and benefits.

Residential

Goal SMP-6: Protect and enhance the character, quality and function of existing residential neighborhoods within the City's shoreline area.

Policy SMP-6.1 ~~Permit Ss~~ structures or other development accessory to residential uses ~~are permitted in the shoreline jurisdiction.~~

Accessory uses such as garages, sheds, accessory dwelling units, and fences are common features that are normally applicable to residential uses located landward of the ordinary high water mark and should be permitted.

Policy SMP-6.2 New overwater residences are not a preferred use and shall not be permitted. Existing non-conforming overwater residential structures should not be enlarged or expanded.

The City contains a number of existing overwater residential structures that were constructed prior to the City's limitation on overwater structures to water dependent uses. These existing structures have created large areas of overhead cover, impacting the aquatic environment. Many of these structures are likely to be remodeled and modernized in the future and these activities should be carefully reviewed to prevent additional adverse impacts and to improve existing conditions, where possible.

Policy SMP-6.3 Manage ~~N~~ new subdivisions of land within the shoreline should be designed to:

- ***Avoid the creation of new parcels with building sites that would impact wetlands, streams, slopes, frequently flooded areas and their associated buffers.***
- ***Ensure no net loss of ecological functions resulting from the division of land or build-out of the lots;***
- ***Prevent the need for new shoreline stabilization or flood risk measures that would cause significant impacts to other properties or public improvements or a net loss of shoreline ecological functions; and***
- ***Implement the provisions and policies for shoreline designations and the general policy goals of this Program.***
- ***Provide public access along the shoreline.***

Though there is not a great capacity to add new units to the shoreline area through subdivision, if properties are divided they should be designed to ensure no net loss, minimize impacts, and prevent the need for new shoreline stabilization structures.

Policy SMP-6.4 Evaluate new ~~S~~ single-family development within areas impacted by critical areas shall be carefully evaluated to protect ecological functions and ensure some reasonable economic use for all property within Kirkland's shoreline.

West of and contiguous with the Yarrow Bay wetlands adjacent to the City limits there are a number of properties that were previously platted for residential use but remain vacant, forested, and impacted by critical areas. In addition, a few properties along the Forbes Creek corridor and Juanita Bay may be similarly encumbered. When considering development proposals on these properties, the City should use a process designed to assure that proposed regulatory or administrative actions do not unconstitutionally infringe upon private property rights.

Commercial

Goal SMP-7: Plan for commercial development along the shoreline the will enhance and provide access to the waterfront.

Policy SMP-7.1 Permit ~~W~~ water-enjoyment uses are appropriate within the shoreline area of the Central Business District.

Downtown Kirkland is an active urban waterfront which strongly benefits from its adjacency to Moss Bay. The Downtown area has a strong land use pattern that is defined by its restaurants, art galleries and specialty shops, which are connected within a pedestrian-oriented district. These uses draw substantial numbers of people to the Downtown and can provide opportunities, if appropriately designed and located, for the public to enjoy the physical and aesthetic benefits of the shoreline. For these reasons, water-enjoyment uses, such as restaurants,

hotels, civic uses, and retail or other commercial uses should be encouraged within the Downtown provided they are designed to enhance the waterfront setting and pedestrian activity.

Policy SMP-7.2 Manage development. Development standards for the in the shoreline area in tof the Central Business District should address to enhance the waterfront orientation. visual access and linkages to the shoreline.

The Central Business District contains extensive public use and views of the waterfront provided by public parks, street ends, public and private marinas, public access piers and shoreline public access trails. The height of buildings on the west side of Lake Street north of Second Avenue South and bordering the shoreline also allows for public views of the lake from many vantages around Downtown. Yet, development along the shoreline has historically “turned its back” to Lake Washington, with active areas located opposite the lake and separated from it by large surface parking lots, limiting the ability to fully capitalize on the Downtown waterfront setting. Future growth and redevelopment along the shoreline in the Downtown should continue to reflect the waterfront setting and ensure that development is oriented to the lake. One key opportunity is to develop a large public plaza over the Marina Park parking lot in order to better connect the Downtown to the lake and the park.

~~Development along the shoreline has often “turned its back” to Lake Washington, with active areas located opposite the lake and separated from it by large surface parking lots. As a result of this historical development pattern, existing development along the shoreline area in the Downtown core is not well oriented to capitalize on its waterfront setting. Future growth and redevelopment along the shoreline in the Downtown should celebrate the waterfront setting by reorienting the downtown to the lake. Improvements should be made to the visual and physical linkage between buildings and the lake. One key opportunity is to develop a large public plaza over the Marina Park parking lot in order to better connect the Downtown to the lake and the park. Opportunities to connect existing pedestrian routes should also be a high-priority objective.~~

~~Existing development on the west side of Lake Street and bordering the shoreline is presently low in height and, as a result, allows public views of the lake from many vantages around Downtown and also allows evening sun into the Downtown core. In general, lower building heights should be considered in this area, unless greater building heights are offset by substantial public benefits, such as through-block public pedestrian access or view corridors.~~

Policy SMP-7.3 Maximize public access, use, and visual access to the lake within Development within Carillon Point and the surrounding commercial area should continue to maximize public access, use, and visual access to the lake.

Carillon Point is a vibrant mixed use development that contains office space, restaurants, and retail space in addition to a hotel, day spa and marina facilities. The site has been designed to provide both visual and physical access to the shoreline, including expansive view corridors which provide a visual linkage from Lake Washington Blvd NE to the lake, as well as an internal pedestrian walkway system and outdoor plazas. The Central Plaza of Carillon Point is frequently used for public gatherings and events. The Plaza is encompassed by a promenade and Carillon Point's commercial uses. If new development or redevelopment occurs on this site, existing amenities related to public access, use and visual access to the lake should be preserved.

Immediately south of Carillon Point, the Yarrow Bay Marina and new office development provides opportunities for public use and enjoyment of the waterfront, including boat rental facilities, a public waterfront trail and waterfront

access area with seating and interpretative signs. In addition, public views across the site have been preserved in an expansive view corridor.

If new development or redevelopment occurs in the commercial area, the strong public access to and along the water's edge, waterfront public use areas, water-dependent uses such as the marinas, and views from Lake Washington Blvd should be preserved to the greatest extent feasible.

Policy SMP-7.4 Enhance the physical and visual linkages to Lake Washington in the Juanita Business District.

The shoreline area of the Juanita Business District presently contains a mix of retail, office and residential uses. Visual linkages to the lake in the Juanita Business District are limited, with existing development blocking most of the shoreline. Waterfront access trails are missing in several key locations, limiting access between Juanita Bay Park and Juanita Beach Park, which border the Business District on the north and south.

The ability to enhance physical and visual access to the Lake is challenging in this area. Several of the shoreline properties are developed with residential condominiums, which are unlikely to redevelop. Some of the commercial properties are significantly encumbered by wetlands that are associated with Lake Washington. Should properties redevelop in this area, public access should be required as a part of any redevelopment proposal.

Despite these challenges, future redevelopment along the shoreline in the Juanita Business District should emphasize Juanita Bay as a key aspect of the district's identity, highlighting recreational opportunities available at Juanita Beach Park and providing better visual and pedestrian connections to both Juanita Bay and Juanita Beach Park and Lake Washington.

Policy SMP-7.5 ~~Allow limited C~~ commercial uses ~~should be allowed~~ in the area located between the Central Business District and Planned Area 15 if public access to and use of the shoreline is enhanced.

Commercial uses which are open to and will attract the general public to the shoreline, such as restaurants, are appropriate within the urban area located between Downtown Kirkland and Carillon Point. These uses will enhance the opportunity for public access to this segment of the shoreline, and will compliment neighboring shoreline parks and, as a result, should be encouraged. To assure that these uses enhance the opportunity for the public to take advantage of the shoreline, these uses should include amenities where the public can view and enjoy the shoreline. These uses should also be limited and designed to assure that they do not adversely impact the natural environment and interfere with nearby uses.

Policy SMP-7.6 ~~Allow L~~ limited commercial uses, such as a hotel/motel and limited marina use, ~~should be allowed~~ within Planned Area 3B.

Planned Area 3B is fully developed with multifamily residential uses and contains a private marina facility. The site is also used for overnight lodging. The site has also been improved with a public trail along its entire perimeter, providing public access to Lake Washington and visual access to the Yarrow Bay wetlands.

Policy SMP-7.7 Non-water oriented commercial development may be allowed if the site is physically separated from the shoreline by another property or right-of-way.

There are several commercial properties which do not have direct frontage on Lake Washington, either because they are separated by right-of-way (Lake Washington Blvd NE, Lake Street, and 98th Avenue NE) or by another property. These properties should be allowed a greater flexibility of uses, given the physical separation from the waterfront area.

Policy SMP-7.8 ~~Prohibit Overwater commercial development other than docks, piers and similar features that support water dependent uses should be prohibited.~~

Overwater structures can adversely impact the shoreline environment and should be avoided, except where necessary to support water dependent uses, and then only when appropriately mitigated.

Boating facilities

~~Goal SMP-9: Goal SMP-8: Manage boating facilities to avoid or minimize adverse impacts.~~

~~Policy SMP-9.Policy SMP-8.1: Locate new boating facilities and allow expansion of existing facilities at sites with suitable environmental conditions, shoreline configuration, and access.~~

One public marina and several private marinas are located on the lake within Kirkland. The Kirkland Public Dock is located downtown at Marina Park. Large private marinas include Carillon Point Marina, Yarrow Bay Marina and Kirkland Yacht Club. Other private marinas providing moorage for multifamily developments are also located along the shoreline.

As new boating facilities are established or existing ones expanded, the facility should be designed to:

~~Goal SMP-9:~~ • Meet health, safety, and welfare requirements, including provisions for pump-out facilities;

~~Goal SMP-10:~~ • Mitigate aesthetic impacts;

~~Goal SMP-11:~~ • Minimize impacts to neighboring uses;

~~Goal SMP-12:~~ • Provide public access;

~~Goal SMP-13:~~ • Assure no net loss of shoreline ecological functions and prevent other significant adverse impacts; and

~~Goal SMP-14:~~ • Protect the rights of navigation and access to recreational areas.

~~Policy SMP-9.Policy SMP-8.2: Require restoration activities when substantial improvements or repair to existing boating facilities is planned.~~

The Kirkland waterfront has been extensively modified with piers and other overwater structures. These overwater structures impact the nearshore aquatic habitat, blocking sunlight and creating large areas of overhead cover. These impacts, where they exist, should be mitigated when substantial improvements or repair to existing boating facilities are planned.

Restoration activities could include reducing or eliminating the number of boathouses and solid moorage covers, minimizing widths of piers and floats, increasing light transmission through over-water structures, enhancing the

shoreline with native vegetation, improving shallow-water habitat, reducing the overall number and size of pier piles, and improving the quality of stormwater runoff.

Goal SMP-11- Goal SMP-9: Promote use of best management practices to control pollutants from boat use, maintenance and repair, as well as proper sewage disposal for boats and potential invasive vegetation transfer.

Marinas and the operation, maintenance and cleaning of boats can be significant sources of pollutants in water and sediments, as well as in animal and plant tissues. Significant steps have been taken at all levels of government and in the private sector to reduce the impacts of marinas and boating on the aquatic environment. The federal Clean Water Act provides the federal government with the authority to regulate the discharge of boat sewage. In addition, the Department of Ecology has developed environmentally protective guidelines for the design and siting of marinas and sewage disposal facilities. The State Parks and Recreation Commission's boater education program provides technical assistance and signage and other materials to marinas. At the local level, governments and private businesses participate in boater programs as well, educating their moorage clients and provide them with the means to dispose of their wastes properly. The City should work cooperatively with state agencies, marina operators and boat owners to continue to minimize the impacts of boating on the aquatic environment.

~~Toxic pollutants enter marina waters through discharges from boats or other sources, spills or stormwater runoff. These pollutants can elevate the level of metals and hydrocarbons in the water and decrease the level of dissolved oxygen required by fish and other aquatic organisms for survival. Moreover, metals and hydrocarbons may accumulate in higher concentrations in sediments than in the overlying water, and in turn affect the organisms attached to or burrowing in the sediment.~~

~~Untreated sewage from boats is one of several nonpoint sources of pathogens that pose a threat to human health. As indicated by the presence of fecal coliform bacteria, these pathogens may reside in the water column, and in sediments. Discharges of treated and untreated sewage from boats may be a problem in smaller bays with poor water circulation near swimming areas and marinas. Boat operations, including anchoring, can destroy habitat, resuspend bottom sediments and increase turbidity, thereby affecting the photosynthetic activity of algae and vegetation.~~

~~Significant steps have been taken at all levels of government and in the private sector to reduce the impacts of marinas and boating on the aquatic environment. The federal Clean Water Act provides the federal government with the authority to regulate the discharge of boat sewage. In addition, the Department of Ecology has developed environmentally protective guidelines for the design and siting of marinas and sewage disposal facilities. The State Parks and Recreation Commission's boater education program provides technical assistance and signage and other materials to marinas. At the local level, governments and private businesses participate in boater programs as well, educating their moorage clients and provide them with the means to dispose of their wastes properly.~~

Managing Shoreline Modifications

Goal SMP-11- Goal SMP-10: Manage shoreline modifications to avoid, minimize, or mitigate significant adverse impacts.

Significant adverse impacts caused from shoreline modifications should be avoided, minimized, or ~~mitigated~~ **compensated** in the following sequential order of preference:

- Avoiding the impact altogether by not taking a certain action or part of an action.
- Minimizing the impact(s) by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
- Minimizing or eliminating the impact by restoring or stabilizing the area through engineered or other methods;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
- Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
- Monitoring the hazard or other required mitigation and taking remedial action when necessary.

Policy SMP-11.Policy SMP-10.1: Assure that shoreline modifications individually and cumulatively do not result in a net loss of ecological functions.

Shoreline modifications are man-made alterations to the natural lake edge and nearshore environment and primarily include a variety of armoring types (some associated with fill), piers, and other in-water structures. These modifications alter the function of the lake edge, change erosion and sediment movement patterns, affect the distribution of aquatic vegetation and are often accompanied by upland vegetation loss. Impacts from these shoreline modifications can be minimized by giving preference to those types of shoreline modifications that have a lesser impact on ecological functions and requiring mitigation of identified impacts resulting from shoreline modifications.

Fill

Policy SMP-11.Policy SMP-10.2: Limit fill waterward of the ordinary high water mark to support ecological restoration or to facilitate water-dependent or public access uses.

Fill allows for the creation of dry upland areas by the deposition of sand, silt, gravel or other materials onto areas waterward of the ordinary high water mark. Fill has traditionally been used in the shoreline area to level or expand residential yards and, in many cases, has been associated with armoring of the shoreline. This use of fill has resulted in an alteration of the natural functions of the lake edge and has often been accompanied by a loss of upland vegetation. As a result, this use of fill should be discouraged.

Alternatively, fill can also be used for ecological restoration, such as beach nourishment, when materials are placed on the lake bottom waterward of the ordinary high water mark. This type of fill activity should be encouraged, provided that it is designed, located and constructed to improve shoreline ecological functions.

Clearing and Grading

Policy SMP-11.Policy SMP-10.3: Limit clearing and grading activities in the shoreline area.

Clearing and grading activities are typically associated with upland development. These activities have the potential to cause erosion, siltation, increase runoff and flood volumes, reduce flood storage capacity and damage habitat and therefore should be carefully considered to ensure that any potential adverse impacts are avoided or minimized. Impacts from clearing and grading activities can be avoided through proper site planning, construction timing practices, and use of erosion and drainage control methods. Generally, these activities should be limited to the maximum extent necessary to accommodate the proposed use, and should be designed and located to protect shoreline ecological functions and ecosystem-wide processes.

Dredging

Policy SMP-11.Policy SMP-10.4: Design and locate new shoreline development to avoid the need for dredging.

Policy SMP-11.Policy SMP-10.5: Discourage dredging operations, including disposal of dredge materials.

Dredging is typically associated with a reconfiguration of the lake bed or stream channel to remove sediments, expand a channel, or relocate or reconfigure a channel. For instance, dredging can be used to excavate moorage slips that have been filled in with sediments or are located in shallow water. In other cases, dredging can be used to remove accumulated sediment that has disrupted water flow and, as a result, water quality, as is the case at Juanita Beach Park.

Dredging activities can have a number of adverse impacts, such as an increase in turbidity and disturbance to or loss of animal and plant species. Dredging activities can also release nutrients in sediments, and may temporarily result in increased growth of nuisance macrophytes such as milfoil after construction is completed. Dredging can also release toxic materials into the water column. As a result, dredging activities should be limited except when necessary for habitat or water quality restoration, or to restore access, and where impacts to habitat are minimized and mitigated.

Shoreline Stabilization

Policy SMP-11.Policy SMP-10.6: Limit use of ~~structural solutions~~ hard structural stabilization measures to reduce shoreline damage.

Lake Washington is an important migration and rearing area for juvenile Chinook salmon. The juvenile Chinook salmon using the Lake depend on the following habitat characteristics:

- Shoreline areas with shallow depths (>1m)
- Gentle ~~S~~slopeSlope
- Fine substrates such as sand and gravel
- Overhanging vegetation/small woody debris

- Small creeks with a shallow, low-gradient at the creek mouth "

Remaining areas with these characteristics should be protected and maintained, while developed areas along Kirkland's shoreline should be enhanced with these habitat features, where feasible.

Bulkheads and other forms of hard stabilization measures impact the suitability of the shoreline for juvenile Chinook salmon habitat, in particular the slope, depth and substrate materials of the shoreline. Shoreline protective structures such as bulkheads create deeper water with steeper gradient and a coarser bottom substrate. Waves no longer are able to dissipate energy over distance as they hit shallower bottom, rocks, or shoreline vegetation. Rather, the wave reflects off a vertical wall, causing scouring of sediment at the base of the wall. The finer sands are removed as the gravel is eroded away and the bottom substrate becomes coarser. The result is a much deeper and steeper nearshore environment, and often elimination of a beach.

Despite these potential ecological impacts, there are some areas along the City's shoreline, especially on shallow lots with steep banks, which may need some form of shoreline armoring in order to protect existing structures and land uses. It is the intent of this policy to require that shoreline stabilization be accomplished through the use of nonstructural measures, such as building setbacks or on-site drainage improvements, -or soft structural measures, such as bioengineering or beach enhancement unless these methods are determined to be infeasible, based on a scientific or geotechnical analysis. In those circumstances where alternatives are demonstrated to not be feasible, the shoreline stabilization measures used should be located, designed, and maintained in a manner that minimizes adverse effects on shoreline ecology.

~~***Policy SMP-10.*** Kirkland's shoreline has been highly modified by the presence of shoreline protective structures (e.g. bulkheads, rip rap, revetments). Approximately 60 percent of the shoreline is armored by either a vertical bulkhead (concrete or timber) or a boulder bulkhead. Shoreline armoring is pursued for many reasons, including:~~

~~***Policy SMP-10.***~~

~~***Policy SMP-10.*** Protecting shoreline property by reducing wave impacts and decreasing erosion;~~

~~***Policy SMP-10.*** Increasing or maintaining lawn areas, and/or~~

~~***Policy SMP-10.*** Coordinating style of neighboring shoreline properties.~~

~~Historically, stabilization of the shoreline has been accomplished by structural means, including the use of concrete walls, large boulders and wood timbers. These types of structures have impacted the natural processes along the shoreline. Shoreline protective structures such as bulkheads create deeper water with steeper gradient and a coarser bottom substrate. Waves no longer are able to dissipate energy over distance as they hit shallower bottom, rocks, or shoreline vegetation. Rather, the wave reflects off a vertical wall, causing scouring of sediment at the base of the wall. The finer sands are removed as the gravel is eroded away and the bottom substrate becomes coarser. The result is a much deeper and steeper nearshore environment, and often elimination of a beach. This impacts the habitat for juvenile salmon, which need shallow beaches with a gentle gradient to hide from predators that hunt in deeper waters. The scouring action can also cause failure of the bulkhead as the base erodes away or acceleration of erosion on neighboring properties as wave action is deflected onto adjoining properties.~~

~~Despite these potential ecological impacts, there are some areas along the City's shoreline, especially on shallow lots with steep banks, which may need some form of shoreline armoring in order to protect existing structures and land uses. Due to the potential for adverse impacts, it is the intent of this policy to require that shoreline~~

~~stabilization, if needed, be accomplished through the use of nonstructural measures, such as bioengineering or on-site drainage improvement, unless these methods are determined to be infeasible, based on a scientific or geotechnical analysis.~~

Policy SMP-11.Policy SMP-10.7: Design, locate, size and construct new or replacement structural shoreline protection structures to minimize and mitigate the impact of these activities on the Lake Washington shoreline.

Shoreline protective structures should ~~only~~ be allowed ~~as necessary~~ to protect a legally established structure or use that is in danger of loss or substantial damage. The potential for damage must be conclusively shown, as documented by a geotechnical analysis, to be caused by shoreline erosion associated with wave action.

~~Shoreline protective structures may also be allowed for reconfiguring the shoreline for mitigation or enhancement purposes.~~

Where allowed, shoreline protection structures should minimize impacts on shoreline hydrology, navigation, habitat, and public access. Shoreline protective structures should be designed for the minimum height, bulk and extent necessary to address an identified hazard to an existing structure. As noted above, vegetation and nonstructural solutions should be used rather than structural bank reinforcement, unless these methods are determined to be infeasible, as documented by a geotechnical analysis.

Policy SMP-11.Policy SMP-10.8: Locate and design new development to eliminate the need for new shoreline modification or stabilization.

New development should be located and designed so that new structural shoreline protection features are not needed.

Policy SMP-11.Policy SMP-10.9: Require enhancement to existing shoreline conditions restoration of existing shoreline armoring when substantial new upland development or repair to the shoreline protective structure is planned.

~~With the exception of our large natural park areas, Kirkland's shoreline has been highly modified by the presence of shoreline protective structures (e.g. bulkheads, rip rap, revetments). Approximately 60 percent of the shoreline is armored by either a vertical bulkhead (concrete or timber) or a boulder bulkhead. The extent of existing shoreline armoring has adversely impacted the ecological functions of Kirkland's shoreline, affecting shoreline upwelling and downwelling, structural complexity, substrate composition, and shoreline gradient. As a result of these impacts to juvenile Chinook salmon habitat, the WRIA 8 Conservation Strategy for the Chinook migratory and rearing areas, which includes the shoreline of Lake Washington, notes that softening or removal of bulkheads is the most important action to improve shoreline habitat.~~

As a result, when substantial new upland development occurs or where substantial repair activities to an existing shoreline protective structure are undertaken, efforts should be made to improve these functions. ~~These efforts should be designed to ensure that the safety of existing structures is not endangered.~~

~~Depending upon the site circumstances, enhancement can include a broad spectrum of different actions. At one end are properties for which bulkhead removal and full shoreline enhancement is possible, and at the other end of the spectrum are properties which may only be able to plant a narrow band of native vegetation upland of the~~

bulkhead. Properties in the latter category are those that have deep water at the bulkhead and utilities or structures close to the water's edge.-

Any site's position on the enhancement continuum is determined by a number of variables, including:

- 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, and
- location of residence, utilities, or other built structures relative to the shoreline edge.

The enhancement action that is implemented should be chosen based on an evaluation of the site and lakebed characteristics as well as degree of redevelopment.

Measures that should be evaluated include removal of the shoreline armoring and replacement with nonstructural measures, beach nourishment, and installation of overhanging vegetation.

Policy SMP-11, Policy SMP-10.910: Encourage salmon friendly shoreline design during new construction and redevelopment by offering incentives and regulatory flexibility to improve the design of shoreline protective structures and revegetate shorelines.

In recent years, many bioengineered techniques have been developed to provide alternative shoreline protection methods. These features may employ the use of gravel substrate material, terraces, large flat rocks, shallow pools, logs, and vegetation to prevent erosion and provide an attractive, usable shoreline. The aim of these designs is to reduce bank hardening, restore overhanging riparian vegetation, and replace bulkheads with sand beaches and gentle slopes. These techniques can provide many ecological benefits, including:

<u>Goal SMP-11: •</u>	<u>Less turbulence.</u>
<u>Goal SMP-12: •</u>	<u>Shallower grade.</u>
<u>Goal SMP-13: •</u>	<u>Protection from predators.</u>
<u>Goal SMP-14: •</u>	<u>Finer sandy bottom.</u>
<u>Goal SMP-15: •</u>	<u>Increased food source.</u>

The WRIA 8 Conservation Strategy notes the importance of reducing bank hardening, restoring overhanging riparian vegetation, replacing bulkheads and riprap with sandy beaches with gentle slopes to improve the habitat for juvenile Chinook salmon²⁶. In order to facilitate the use of alternatives to shoreline stabilization composed of concrete, riprap, or other hard structural or engineered materials, the City should identify appropriate regulatory flexibility or offer incentives to shoreline property owners to voluntarily remove bulkheads and vegetate the shoreline.

Generally, these measures are implemented at and landward of the ordinary high water mark. In some cases, the depth of the lot can impact the ability to effectively incorporate soft shoreline stabilization measures. In those cases, the harder elements of soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high water mark.

Policy SMP-10.1011: Expand outreach to lakeside property owners about shoreline landscape design, maintenance, and armoring alternatives.

These designs can also offer the following benefits to landowners:

- Easier access to beach and water, especially if you have a kayak or other 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 City should evaluate different outreach and education actions to foster stewardship of shoreline property owners and the general public, including, but not limited to the following:

- Distribute educational materials on a range of topics, including salmon habitat needs, household and landscape best management practices, the value of large woody debris, the value of tree cover, and stormwater issues.
- Establish a contact list of shoreline property owners to facilitate educational outreach.
- Offer shoreline property owners workshops on "salmon friendly" design
- Use restoration projects sites for demonstration purposes and provide interpretation at restoration sites, including signage, tours, and other methods.
- Provide information about opportunities for involvement in community stewardship projects
- Offer education to landscape designers/contractors on riparian design.
- Create local informational TV spots that could run on the City's television channel.
- Focus environmental/science curricula on local watershed issues.

Public outreach efforts should focus on the opportunity to improve existing habitat, but also to the potential benefits that alternative shoreline stabilization can offer, including:

- Easier access to beach and water, especially with a kayak or other human-powered craft.
- Shallow gradient shore and water can be safer, especially for small children.
- More usable shoreline with beach and cove.
- Reduced maintenance.
- Potential for increased property values.

In-stream Structures

Policy SMP-11, Policy SMP-10.121: Limit the use of in-stream structures.

"In-stream structure" means a structure placed by humans within a stream waterward of the ordinary high water mark that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. Within Kirkland, these features typically include those for flood control, transportation, utility service transmission, and fish habitat enhancement.

In-stream structures should only be used in those circumstances where it is demonstrated to provide for the protection and preservation of ecosystem-wide processes, ecological functions, and cultural resources, including, but not limited to, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas. The location and planning of in-stream structures should be determined

with due consideration to the full range of public interests, watershed functions and processes, and environmental concerns, with special emphasis on protecting and restoring priority habitats and species.

Breakwaters and similar features

Policy SMP-11.Policy SMP-10.1213: Limit the use of breakwaters and other similar structures..

A breakwater typically refers to an off-shore structure designed to absorb and/or reflect wave energy back into the water body. Breakwaters can be floating or fixed in location and may or may not be connected to the shore. These modifications are limited within the City, but can be found at Kirkland Yacht Club as well as at Juanita Beach Park, where a breakwater has been installed around the overwater boardwalk to shelter the swimming area. Breakwaters have the potential to adversely impact the shoreline environment, including impacts to sediment transport, deflection of wave energy, a decrease in water flushing and water exchange, to name a few. As a result, the installation of new breakwaters should be limited to those circumstances when it is shown to be necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose. In these circumstances, the feature should be carefully designed to avoid, minimize, and then mitigate any adverse ecological impacts.

Piers and Docks

Goal SMP-12. Goal SMP-11: Minimize impacts to the natural environment and neighboring uses from new or renovated piers and docks.

Policy SMP-12.Policy SMP-11.1: Design and locate private piers and docks so that they do not interfere with shoreline recreational uses, navigation, or the public's safe use of the Lake and shoreline.

Private piers and docks should be located and designed to provide adequate separation from public parks, other adjoining moorage facilities and adjacent properties in order to limit any adverse impacts to safe navigation or recreational uses.

Policy SMP-12.Policy SMP-11.2: Design and construct new or expanded piers and docks and their accessory components, such as boatlifts and canopies, to minimize impacts on native fish and wildlife and their habitat.

The Kirkland waterfront has been extensively modified with piers and other overwater structures. These overwater structures impact the nearshore aquatic habitat, blocking sunlight and creating large areas of overhead cover. Piers and other overwater structures also shade the lake bottom and inhibit the growth of aquatic vegetation. These types of structural modifications to shorelines are now known to benefit non-native predators (like largemouth and smallmouth bass), while reducing the amount of complex aquatic habitat formerly available to salmonids rearing and migrating through Lake Washington. This can impact juvenile salmonids, in particular, due to their affinity to nearshore, shallow-water habitats. Chemical treatments of pier components, such as creosote pilings, installed prior to today's standards, have also impacted water and sediment quality in the lake.

The combined effect of an overwater structure and a dramatic change in aquatic vegetation results in a behavior

modification in juvenile salmonids, which will often change course to circumvent large piers or other overwater structures rather than swimming beneath themⁱⁱⁱ. These behavior modifications disrupt natural patterns of migration and can expose juvenile salmonids to increased levels of predation.

Minimizing overwater coverage and associated support structures can benefit salmon. Studies related to shading effects from varying types of pier decking indicate that grated decking provides significantly more light to the water surface than traditional decking methods and may lead to improved migratory conditions for juvenile chinook salmonⁱⁱⁱ.

Impact minimization measures, which have been identified by state and federal agencies, include, but are not limited to:

- Shared use of piers;
- Reducing or eliminating the number of boathouses and solid moorage covers (e.g. use of clear, translucent materials proven to allow light transmission for new canopies);
- Minimizing the size and widths of piers and floats;
- Increasing light transmission through any over-water structures (e.g. use of grated decking);
- Maximizing the height of piers above the water surface;
- Enhancing the shoreline with native vegetation;
- Improving shallow-water habitat;
- Reducing the overall number and size of pier piles; and
- Improving the quality of stormwater runoff.

Policy SMP-12.Policy SMP-11.3: Minimize aesthetic impacts of piers ~~and docks~~ and their accessory components.

In order to minimize aesthetic impacts, piers ~~and docks~~ should make use of non-reflective materials, minimize lighting facilities to that necessary to locate the ~~dock~~ pier at night, and focus illumination downward to minimize glare.

Shoreline Habitat and Natural Systems Enhancement Projects

Goal SMP-13: Goal SMP-12: Restore shoreline areas that have been degraded or diminished in ecological value and function as a result of past activities.

Policy SMP-13.Policy SMP-12.1: Include provisions for shoreline vegetation restoration, fish and wildlife habitat enhancement, and low impact development techniques in projects located within the shoreline, where feasible.

Shoreline habitat and natural systems enhancement projects include those activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines. Such projects may include shoreline modification actions such as modification of vegetation, removal of nonnative or invasive plants, shoreline stabilization, dredging, and filling, provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

The City's shoreline has been impacted by past actions and, as a result, there are many opportunities available for restoration activities that would improve ecological functions. For example, enhancement of riparian vegetation, reductions or modifications to shoreline hardening, and improvements to fish passage would improve the ecological function of the City's shoreline. Many of these restoration opportunities exist throughout the City on private property, as well as on City property, including parks, open spaces, and street-ends. Both public and private efforts are needed to restore habitat areas. Opportunities include public-private partnerships, partnerships with other agencies and tribes, capital improvement projects, and incentives for private development to restore and enhance fish and wildlife habitat.

ⁱ [WRIA 8 Steering Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed \(WRIA 8\) Chinook Salmon Conservation Plan. July 2005.](#)

ⁱⁱ [Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.](#)

[Tabor, R.A., J.A. Schuerer, H.A. Gearn, and E.P. Bixler. 2004b. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington basin, annual report, 2002. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, Washington.](#)

[Tabor, R.A., H.A. Gearn, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.](#)

ⁱⁱⁱ [WRIA 8 Steering Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed \(WRIA 8\) Chinook Salmon Conservation Plan. July 2005.](#)

^{iv} [WRIA 8 Steering Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed \(WRIA 8\) Chinook Salmon Conservation Plan. July 2005.](#)

^v [Fresh, K.L. and G. Lucchetti. 2000. Protecting and restoring the habitats of anadromous salmonids in the Lake Washington Watershed, an urbanizing ecosystem. Pages 525-544 in E.E. Knudsen, C.R. Steward, D.D. MacDonald, J.E. Williams, and D.W. Reiser \(editors\). Sustainable Fisheries Management: Pacific salmon. CRC Press LLC, Boca Raton.](#)

^{vi} [Kahler T., M. Grassley, and D. Beauchamp. 2000. A Summary of the effects of bulkheads, piers, and other artificial structures and shorezone development on ESA-listed salmonids in lakes. Final Report. Prepared for City of Bellevue by The Watershed Company. 74 pp.](#)

[Kerwin, J. 2001. Salmon and steelhead habitat limiting factors report for the Cedar-Sammamish Basin \(Water Resource Inventory Area 8\). Washington Conservation Commission. Olympia, WA.](#)

[Tabor, R.A., H.A. Gearn, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.](#)

^{vii} [Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.](#)

[Tabor, R.A., J.A. Schuerer, H.A. Gearn, and E.P. Bixler. 2004b. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington basin, annual report, 2002. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, Washington.](#)

[Tabor, R.A., H.A. Gearn, C.M. McCoy III, and S. Camacho. 2006. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2003 and 2004. U.S. Fish and Wildlife Service, Lacey, WA.](#)

^{viii} [Gayaldo, P.F. and K. Nelson. 2006. Preliminary results of light transmission under residential piers in Lake Washington, King County, Washington: A comparison between prisms and grating. Lake and Reserv. Manage. 22\(3\):245-249.](#)

Shoreline Environment

Goal SMP-14: Goal SMP-13: Preserve, protect, and restore the shoreline environment.

Kirkland is enriched with valued natural features within the shoreline area that enhance the quality of life for the community. Natural systems serve many essential functions that can provide significant benefits to fish and wildlife, public and private property, and enjoyment of the shoreline area.

Shoreline Critical Areas

Note: The Natural Environment Chapter of the Comprehensive Plan contains a set of policies relating to critical areas, including Goals NE -1, together with related Policies NE-1.1 through NE-1.6, Goal NE-2, together with related policies NE-2.1 through NE-2.7, and Goal NE-4.

Critical areas found within the shoreline area include geologically hazardous areas, frequently flooded areas, wetlands, and fish and wildlife habitat conservation areas. Floodplains, while not a designated critical area, are also addressed in this section due to the relationship with frequently flooded areas within the City. No critical aquifer recharge areas are mapped within the City.

Policy SMP-14, Policy SMP-13.1: Conserve and protect critical areas within the shoreline area from loss or degradation.

Environmentally critical areas within the shoreline area are important contributor's to Kirkland's shoreline environment and high quality of life. Some natural features are critical to protect in order to preserve the important ecological functions they provide. The City also regulates and restricts development within critical areas, either because of the hazards they present to public health and safety or the important ecological functions they provide. This policy is intended to ensure that the ecological functions and ecosystem-wide processes of these natural systems are maintained and improved.

Policy SMP-14, Policy SMP-13.2: Locate and design public access within and adjacent to critical areas to ensure that ecological functions are not impacted.

While public access for educational and public access purposes is an important objective, the location and design of public access must be carefully considered to avoid impacts to critical areas.

Geologically Hazardous Areas

Policy SMP-14, Policy SMP-13.3: Manage development to avoid risk and damage to property and loss of life from geological conditions.

Geologically hazardous areas include landslide hazard areas, erosion hazard areas and seismic hazard areas. These areas, as a result of their slope, hydrology, or underlying soils, are potentially susceptible to erosion, sliding, damage from earthquakes or other geological events. These areas can pose a threat to health and safety, if development is not appropriately managed and the area studied as a condition of permitting construction.

Wetlands

Policy SMP-14, Policy SMP-13.4: Protect and manage shoreline-associated wetlands.

Wetlands are areas that, under normal conditions, are inundated or saturated by surface or groundwater at a frequency and duration to support, ~~and that under normal conditions do support~~, a prevalence of vegetation typically adapted for life in saturated soils conditions. The wetlands located within the shoreline area perform many ecological functions, including habitat for fish and wildlife, flood control, and groundwater recharge, as well as surface and groundwater transport, storage and filtration. Additionally, wetlands provide opportunities for research and scientific study, outdoor education, and passive recreation.

Kirkland's shoreline contains two extensive high-quality wetland systems: the wetlands located contiguous with the shoreline at Juanita Bay Park and extending up through the Forbes Valley (Forbes 1) and the Yarrow Bay wetlands (Yarrow 1). It is estimated that these wetlands combined are over 156 acres in size. The Forbes 1 wetland has several different vegetation classes, including forested, scrub-shrub, emergent, open water, and aquatic bed. The wetland contains a variety of plant species and types, including native red alder, willow, cottonwood, salmonberry, spiraea, red-osier dogwood, skunk cabbage, buttercup, small-fruited bulrush, lady fern, soft rush, horsetail, cattail, and non-native Himalayan blackberry, reed canarygrass and purple loosestrife. Within the *Final Kirkland Shoreline Analysis Report* (2006), this system has been rated "high quality" for several functions, including habitat, water and sediment storage, water quality improvement, wave energy attenuation and bank stabilization, and nutrient and toxic compound removal.

The Yarrow Bay wetland complex similarly contains a number of wetland classes, including forested, scrub-shrub, emergent, open water, and aquatic bed. The Yarrow Bay complex also contains a mixture of plant species and types, including native red alder, willow, cottonwood, salmonberry, spiraea, red-osier dogwood, and cattail and non-native Himalayan blackberry and reed canarygrass. The *Final Kirkland Shoreline Analysis Report* (2006) also rates this system "high quality" for numerous functions.

The Forbes 1 and Yarrow 1 wetlands are also mapped as priority wetlands by Washington Department of Fish and Wildlife (WDFW) (2006). Priority wetlands are those wetlands that have "[c]omparatively high fish and wildlife density, high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, limited availability, [and] high vulnerability to habitat alteration."

This policy is intended to ensure that the City achieves no net loss of wetlands through retention of wetland area, functions and values. Mitigation sequencing is used to ensure impacts to wetlands are avoided, where possible, and mitigated, when necessary.

Wetlands are protected in part by buffers, which are upland areas adjacent to wetlands. Wetland buffers serve to moderate runoff volume and flow rates; reduce sediment loads; remove waterborne contaminants such as excess nutrients, synthetic organic chemicals (e.g., pesticides, oils, and greases), and metals; provide shade for surface water temperature moderation; provide wildlife habitat; and deter harmful intrusion into wetlands.

Fish and Wildlife Habitat Conservation Areas

Policy SMP-14, Policy SMP-13.5: Protect and restore critical freshwater habitat.

Fish and wildlife habitat conservation areas provides food, protective cover, nesting, breeding, or movement for threatened, endangered, sensitive, monitor, or priority species of plants, fish, or wildlife. Within the City, there are several areas that fall within this classification.

Lake Washington is known to support a diversity of salmonids, including chinook salmon, steelhead trout, bull trout (listed as threatened under the Endangered Species Act), coho salmon, sockeye salmon, and kokanee salmon.

Several streams pass through the City of Kirkland, discharging into Lake Washington. Several of these streams are known to support fish use, including chinook (juvenile use of the mouths of several streams), coho, sockeye salmon, and steelhead and cutthroat trout. Some of the most prominent fish-bearing streams include Yarrow Creek, Forbes Creek, and Juanita Creek, which are protected within City parks at their outlet to Lake Washington. Salmonid and other fish species are also known to inhabit other Lake Washington tributaries such as Carillon Creek.

The Forbes Creek corridor is designated by WDFW as a priority "riparian zone" because it has been determined to meet these criteria: "[h]igh fish and wildlife density, high fish and wildlife species diversity, important fish and wildlife breeding habitat, important wildlife seasonal ranges, important fish and wildlife movement corridors, high vulnerability to habitat alteration, unique or dependent species."

Both the Yarrow Bay wetlands and Juanita Bay Park extending up the Forbes Creek corridor provide excellent habitat for birds (including songbirds, raptors, waterfowl), amphibians, mammals and even reptiles. Bald eagles and ospreys regularly perch in trees adjacent to Juanita and Yarrow Bays, and forage in the Bays. Pileated woodpeckers (a State Candidate species) also reportedly nest in the Juanita Bay wetlands, and according to the East Lake Washington Audubon Society, purple martins (a State Candidate species) used nesting gourds installed in early 2006 around the Juanita Bay. Although a bald eagle nest is mapped in the Yarrow Bay wetlands, it was last active in 1999 and the nesting pair relocated to Hunts Point. However, the mapped great blue heron nesting colony is still active.

This policy is intended to ensure that the ecological functions and ecosystem-wide processes associated with critical freshwater habitats are protected to assure no net loss, and that improvements are made through restoration activities. The City has worked to protect these valuable habitat areas through acquisition and management of public areas, as well as development controls, including protection of streams and wetlands and their associated buffers and coordination with federal and state agencies on protection issues associated with listed species.

Frequently Flooded Areas and Floodplains

~~***Goal SMP-15: Goal SMP-14: Limit new development in floodplains.***~~

~~***Policy SMP-15, Policy SMP-14.1: Regulate development within the 100-year floodplain to avoid risk and damage to property and loss of life.***~~

Frequently flooded areas help to store and convey storm and flood water; recharge ground water; provide important riparian habitat for fish and wildlife; and serve as areas for recreation, education, and scientific study. Development within these areas can be hazardous to those inhabiting such development, and to those living

upstream and downstream. Flooding also can cause substantial damage to public and private property that result in significant costs to the public as well as to private individuals.

The primary purpose of frequently flooded areas regulations is to regulate development in the 100-year floodplain to avoid substantial risk and damage to public and private property and loss of life. Lake Washington does not have a floodplain due to its lake elevation control by the Corps. However, floodplains are designated for both Yarrow Creek wetlands in association with Yarrow Creek and the low-gradient riparian area associated with Forbes Creek.

In both cases, the potential channel migration zone is protected as wetlands associated with Lake Washington. This protection limits development and modifications in those areas where the creeks have the potential to migrate. This protection limits the potential for migration to affect existing or future structures.

Water Quality and Quantity

Note: The Natural Environment Chapter of the Comprehensive Plan contains a set of policies relating to water systems and addressing water quality and quantity, including Goal NE-2, together with related policies NE-2.1 through NE-2.7. The Utilities Chapter also contains policies addressing storm water, including Goal U-4, together with related policies U-4.1 through U-4.11.

Goal SMP-16: Goal SMP-15: Manage activities that may adversely impact surface and ground water quality or quantity.

While most of the storm water entering streams and the lake do not come from the shoreline jurisdiction, surface water management is still a key component of the shoreline environment, due to the potential of activities in the larger watershed basin to contribute to water quantity and quality conditions in streams and the lake.

As part of the Kirkland's Surface Water Utility, Surface Water Master Plan, and implementation of the NPDES Phase II Municipal Stormwater permit requirements, the City is pursuing activities and programs within the larger watershed basin to address flood protection, water quality improvement, and habitat protection and restoration.

Within the shoreline jurisdiction, the City can regulate development and provide education and incentives to minimize impacts to water quality and limit the amount of surface water runoff entering the lake.

Policy SMP-16, Policy SMP-15.1: Manage storm water quantity to ensure protection of natural hydrology patterns and avoid or minimize impacts to streams.

Native forest communities with healthy soil structure and organic contact help to manage the amount and timing of runoff water that reaches streams and lakes by intercepting, storing, and slowly conveying precipitation. As these systems are impacted and forests are replaced by impervious surfaces like roads, parking areas, and rooftops, larger quantities of water leave the developed watershed more quickly. Impervious surfaces affect the amount of water that seeps into the ground and washes into streams; they also affect how quickly the water gets there. When land is covered with pavement or buildings, the area available for rainwater and snowmelt to seep into the ground and replenish the groundwater is drastically reduced; in many urban areas it is virtually eliminated. The natural movement of water through the ground to usual discharge points such as springs and

streams is altered. Instead, the natural flow is replaced by storm sewers or by more concentrated entrance points of water into the ground and surface drainages.

Changing the timing and amount of water run-off can lead to too much water going directly into streams in the rainy months of winter instead of soaking into the ground. Consequently, there is not enough water in the ground to slowly release into streams in the dry months of summer. Too much water in the winter causes unnaturally swift currents that can erode stream banks and scour and simplify the stream channels, damaging fragile fish habitat. In contrast, not enough water in streams in the summer leads to water temperatures too high to support fish and isolation of fish in small pools. These fundamental changes to hydrology alter watersheds in several ways, including the following:

- The size, shape, and layout of stream channels change to accommodate the new flow regime, thus changing physical habitat conditions for aquatic species.
- Erosion increases suspended solid concentrations and turbidity in receiving properties which can impair survival of aquatic species, including salmon.
- Opportunities for soils and vegetation to filter pollutants from stormwater are reduced, leading to water quality degradation. Stormwater can also carry heavy metals, household wastes, excess nutrients, and other pollutants to the shoreline area.
- Reduced streamside vegetation can lead to increased water temperatures that reduce survival of aquatic species, including salmon. Fine sediment smothers fish eggs, impacting future populations.

Discharges into the tributary streams, such as Forbes Creek, can have a significant impact on in-stream habitat complexity, peak flow magnitude and duration, bank stability, substrate composition, and a number of other parameters.

Policy SMP-16.Policy SMP-15.2: Prevent impacts to water quality.

This policy is intended to prevent impacts that would result in a net loss of shoreline ecological functions, or a significant impact to aesthetic qualities or recreational opportunities.

Water is essential to human life and to the health of the environment. Water quality is commonly defined by its physical, chemical, biological and aesthetic (appearance and smell) characteristics. A healthy environment is one in which the water quality supports a rich and varied community of organisms and protects public health. Water quality influences the way in which Kirkland uses water for activities such as recreation and scientific study and education, and it also impacts our ability to protect aquatic ecosystems and wildlife habitats.

The degradation of water quality adversely impacts wildlife habitat and public health. This is particularly relevant to the shoreline, since all of the regulated surface waters, both natural and piped, are discharged ultimately to Lake Washington. The water quality impact of stormwater inputs is also significant. Stormwater runoff carries pesticides, herbicides and fertilizers applied to lawns and sports fields; hydrocarbons and metals from vehicles; and sediments from construction sites, among other things. All of these things can harm fish and wildlife, their habitats, and humans.

Presently, Lake Washington is considered at risk for chemical contamination from hydrocarbon input from the urbanized watershed. The lake has also exhibited problems with levels of fecal coliform, ammonia, and PCBs present (Final Kirkland Shoreline Analysis Report, 2006).

The City has various programs to control stormwater pollution through maintenance of public facilities, inspection of private facilities, water quality treatment requirements for new development, source control work with businesses and residents, and spill control and response. These programs are managed under the Surface Water Utility, whose goals are:

- Flood protection
- Water quality improvement, and
- Habitat protection and restoration.

Kirkland has also adopted a *Surface Water Master Plan* (2005) that sets goals and recommends actions for flood reduction, water quality improvement, and aquatic habitat restoration. This plan contains plans and programs to address water quality and high flow impacts from creeks and shoreline development through a number of mechanisms, including the following:

- Participation in WRIA 8 activities.
- Adoption of regulations and best management practices consistent with the NPDES Phase II permit requirements.
- Increased public education and outreach.
- Construction of projects that address existing flooding problems.
- Increased inspection and rehabilitation of the existing stormwater system.
- Identifying pollution "hot spots" for possible water quality treatment.
- Examining City practices and facilities to identify where water quality improvements can be made.
- Combining flow controls with in-stream habitat improvement projects in Juanita and Forbes creek watersheds.

Policy SMP-16.Policy SMP-15.3: Support public education efforts to protect and improve water quality.

Many residential yards within the shoreline area are dominated by lawn and landscaping, which can contribute water quality contaminants such as fertilizers, herbicides, and pesticides. Fertilizers and herbicides can affect the aquatic vegetation community, stimulating overgrowth of some species which can have a multitude of deleterious effects and suppress growth of other species. Pesticides also directly affect fish. Fish use their olfactory sense to find their way home. Garden chemicals that get into our lakes and streams may mask the smell fish use for homing. Scientists have found that pesticides also interfere with the ability of salmon to reproduce and avoid predators. Presently, nutrient levels in Lake Washington do not represent a problem for salmonids (Final Kirkland Shoreline Analysis Report, 2006). Encouraging natural yard care practices and salmon-friendly landscape design can help to reduce the contaminant load into Lake Washington. Should nutrient levels continue to increase and represent a more significant problem, regulations limiting the use of pesticides, fertilizers and herbicides in the shoreline environment may become necessary.

Boat maintenance can also impact the aquatic environment with hydrocarbons, oils and other chemicals, and solvents. Providing information on boating practices, including operation and maintenance practices that can

help prevent harmful substances from entering the water such as gasoline, two-stroke engine fuel, paint, and wood conditioner and other boat related substances, can also improve water quality. The City should also assist property owners by providing information on environmentally friendly methods of maintaining dockpiers and decks.

Finally, the City should continue its efforts to increase the public's awareness of potential impacts of certain practices on water bodies and water quality, including improper disposal of hazardous materials.

Vegetation Management

Note: The Natural Environment Chapter of the Comprehensive Plan contains policies relating to vegetation, including Goal NE-3, together with related policies NE-3.1 through NE-3.3. The Natural Resources Management Plan also addresses issues relating to vegetation management in Section C, Land and Vegetation.

Goal SMP-17: Goal SMP-16: Protect, conserve and establish vegetation along the shoreline edge.

Policy SMP-16.1: Plan and design new development or substantial reconstruction to retain or provide shoreline vegetation.

~~Vegetation along the Lake Washington shoreline has been significantly altered over time, as bulrush and willow have been affected first by the Corps's lowering of the Lake's natural elevation by 9 feet and subsequently by shoreline development with accompanying landscaping. Presently, vegetation within Kirkland's shoreline is dominated by residential and urban landscaping, except for the high-quality wetland areas of Yarrow Bay and Juanita Bay. The loss of natural shoreline vegetation has reduced complex shoreline features such as overhanging and emergent vegetation, woody debris, and indirectly gravel and cobble beaches.~~

Vegetation within the shoreline environment is essential for fish and wildlife habitat, providing habitat complexity and, in the case of riparian vegetation, native lakeshore vegetation, such as rushes, willow, dogwoods and cottonwoods, supporting the insects that provide an important food source for salmonⁱⁱ. Shoreline vegetation is also important in helping to camouflage young salmon as they hide amidst stumps, root wads, beneath overhanging vegetation, or within branches that have fallen into the waterⁱⁱ. Vegetation also helps to support soil stability, reduce erosion, moderate temperature, produce oxygen, and absorb significant amounts of water, thereby reducing runoff and flooding.

Presently, shoreline vegetation and riparian structure are not properly functioning within Lake Washington (Final Kirkland Shoreline Analysis Report, 2006). The intent of this policy is to protect existing shoreline vegetation, in particular existing trees, and establish new vegetation, including native trees, shrubs and groundcover, along the shoreline edge to improve shoreline vegetation and riparian structure and the ecological functions that these shoreline conditions affect.

Policy SMP-16.2: Limit tree clearing and thinning activities along the shoreline.

As a result of the functions that shoreline vegetation provides, it is important that vegetation conservation measures be implemented along the shoreline. Significant trees located between structures and the shoreline should be preserved to the greatest extent feasible. Tree removal or topping for the purposes of creating views

should be prohibited. Limited thinning of trees to enhance views may be appropriate in certain circumstances, provided that this activity does not adversely impact tree health, ecological functions, and/or slope stability.

Policy SMP-17.3: Provide outreach and education materials to lakeside property owners about the importance and role of shoreline vegetation.

The City should offer shoreline property owners workshops or other materials to address the value of riparian vegetation, invasive species, erosion control, the value of large woody debris for salmon habitat, and natural yard care practices.

Public outreach efforts should focus on the opportunity to improve existing habitat and on the ability to use shoreline vegetation to:

- ~~Create an~~ A native plant buffer can also provide homeowners with an attractive landscape that offers variety and seasonal color;
- ~~Reduced~~ maintenance;
- ~~Provide more~~ privacy without sacrificing views;
- ~~Increased~~ property values,
- ~~Improved~~ water quality; and
- ~~Reduced~~ use by geese and other waterfowl; ~~and a yard that is safer for families, pets and fish and wildlife. Proper plant selection and design can ensure that views are not diminished.~~

~~Goal SMP-18:~~ Goal SMP-17: Design aquatic vegetation management efforts to use a mix of various control methods with emphasis on the most environmentally sensitive methods.

Noxious weeds of Washington State are non-native, invasive plants defined by law as a plant that when established is highly destructive, competitive or difficult to control by cultural or chemical practices. These plants have been introduced intentionally and unintentionally by human actions. Most of these species have no natural enemies, such as insects or diseases, to help keep their population in check. As a result, these plants can often multiply rapidly. The two most common invasive species that are impacting Lake Washington's and Kikland's marinas, residential waterfront owners and wildlife are Eurasian watermilfoil and white water lily. Eurasian watermilfoil, an aquatic plant found in lakes and slow-moving streams, can lower dissolved oxygen and increase pH, displace native aquatic plants, and increase water temperature.

Some aquatic weeds are controlled because they interfere with human needs such as boating and swimming in the lakes. Others pose a threat to the environment. The introduction of any non-native species has an effect on native species and habitats, although it is often difficult to predict those effects. However, there is a growing number of non-native aquatic plant and animal species whose current or potential impacts on native species and habitats are known to be significant. Potential threats may be evidenced by the degree of negative impact these species have upon the environment, human health, industry and the economy (WDFW 2001). Potential negative impacts relevant to the Lake Washington environment include:

- loss of biodiversity;
- threaten ESA-listed species such as salmon;
- alterations in nutrient cycling pathways;
- decreased habitat value of infested waters;

- decreased water quality;
- decreased recreational opportunities;
- increased safety concerns for swimmers; and
- decrease in property values.

Non-native species can be controlled through a variety of mechanisms, including mechanical and physical means (hand pulling, hand tools, bottom barrier, weed roller, mechanical cutters, and harvesters) biological controls and herbicides. ~~In general, chemical treatment should be pursued as a last resort.~~ Depending on the method-of control-~~chosen~~, there can be impacts associated with mechanical or physical removal of aquatic vegetation. For instance, there could be disturbance of the substrate, reduction in benthic invertebrates (which are an important food source), and increased risk of spread of the invasive species to other areas. Depending on the condition of the sediments, substrate disturbance can result in acute, although temporary, increases in turbidity and may re-introduce pollutants bound to the sediments back into the water column. In addition, reductions in aquatic vegetation, whether native or non-native, reduce primary productivity, which is the foundation of the lake food chain. This could result in reduced fish production at the top of the food chain⁶.

Use of herbicides also may pose impacts. Herbicide use may have unwanted impacts to people who use the water and to the environment. Non-targeted plants as well as nuisance plants may be controlled or killed by some herbicides. Depending on the herbicide used, it may take several days to weeks or several treatments during a growing season before the herbicide controls or kills treated plants. Rapid-acting herbicides like endothall and diquat may cause low oxygen conditions to develop as plants decompose. Low oxygen can kill fish. To be most effective, generally herbicides must be applied to rapidly-growing plants. Some expertise in using herbicides is necessary in order to be successful and to avoid unwanted impacts. Finally, some people may have strong feelings against using chemicals in water.

Despite these potential impacts, control and aquatic vegetation may be necessary in certain circumstances, such as when native plant communities and associated habitats are threatened or when an existing water-dependent use is restricted by the presence of weeds.

~~However, control of invasive aquatic vegetation may be biologically justifiable where the plants are so dense that dissolved oxygen (DO) levels fall to suboptimal or even lethal levels (2-4 mg/L). DO levels drop below dense surface mats because light is blocked to the submerged aquatic vegetation which produces the majority of the oxygen to the water column. Much of the oxygen produced by the surface mats of vegetation is lost to the atmosphere. Decomposition of submerged dead material also depletes the water column of oxygen. In addition, dense vegetation can reduce wave action at the surface, which would otherwise help oxygenate the water. Reduced wave action can also contribute to increased water temperature, as the cooler water from deep areas does not flush the warmer, vegetated shallow areas. Warmer water holds less oxygen than cold water.~~

~~Presently, habitat elements within the lake are not properly functioning due, in part, to the prevalence of invasive species which out compete native species and reduce the overall structural complexity (Final Kirkland Shoreline Analysis Report, 2006).~~

In general, herbicide application should be limited to those circumstances where other weed removal or control techniques are not sufficient. Herbicide application may prove necessary in some circumstances, such as large-scale dense infestations that are having significant adverse effects on human or wildlife use of the water. When used in these applications, herbicides should be part of an integrated plan for noxious weed control⁶.

In response to the problem of invasive, non-native species entering Washington waters, laws have now been enacted requiring that all boats leaving a Washington boat launch be free of aquatic weeds and other debris, or otherwise risk being ticketed.

Aquatic vegetation management will likely take coordination on a larger-scale to ~~effectively manage~~ be effective. As a result, the City should work with landowners and neighboring jurisdictions to develop aquatic vegetation management plans on a large-scale basis.

ⁱⁱ [Christensen, D.L., B.R. Herwig, D.E. Schindler, and S.R. Carpenter. 1996. Impacts of lakeshore residential development on coarse woody debris in north temperate lakes. Ecological Applications 6:1143-1149.](#)

ⁱⁱⁱ [Tabor, R.A. and R.M. Piaskowski. 2002. Nearshore habitat use by juvenile chinook salmon in lentic systems of the Lake Washington Basin, Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.](#)

[Tabor, R.A., M.T. Celedonia, F. Mejia, R.M. Piaskowski, D.L. Low, B. Footen, and L. Park. 2004a. Predation of juvenile chinook salmon by predatory fishes in three areas of the Lake Washington basin. Miscellaneous report. U.S. Fish and Wildlife Service, Western Washington Fish and Wildlife Office, Lacey, Washington.](#)

^{iv} [Kahler T., M. Grassley, and D. Beauchamp. 2000. A Summary of the effects of bulkheads, piers, and other artificial structures and shorezone development on ESA-listed salmonids in lakes. Final Report. Prepared for City of Bellevue by The Watershed Company. 74 pp.](#)

^v [Washington Department of Ecology. 2008. Aquatic plant management. Aquatic herbicides.](#)

^{vi} [Washington Department of Fish and Wildlife \(WDFW\). 1997. Aquatic Plants and Fish. Publication number APF-11-97.](#)

Shoreline Parks, Recreation, and Open Space

Public Parks

Note: The 2001 Comprehensive Park, Open Space and Recreation Plan provides policies and planning for parks, open space and recreating within the City of Kirkland, including waterfront parks.

Goal SMP-15: Goal SMP-18:* *Provide substantial recreational opportunities for the public in the shoreline area.

With miles of shoreline, the City has preserved significant portions of its waterfront in public ownership as parks. Kirkland's waterfront parks are the heart and soul of the City's park system. They bring identity and character to the park system and contribute significantly to Kirkland's charm and quality of life. The 13 waterfront parks stretch from the Yarrow Bay wetlands to the south to Juanita Bay and Juanita Beach Parks to the north, providing Kirkland residents year-round waterfront access. Kirkland's waterfront parks are unique because they provide citizens a diversity of waterfront experiences for different tastes and preferences. Park activities and facilities include public docks and fishing access, boat moorage, boat launches, swimming, interpretative trails, and picnicking. Citizens can enjoy the passive and natural surroundings of Juanita Bay and Kiwanis Parks and the more active swimming and sunbathing areas of Houghton and Waverly Beach Parks.

Policy SMP-15.Policy SMP-18.1:* *Acquire, develop, and renovate shoreline parks, recreational facilities, and open spaces that are attractive, safe, functional, and respect or enhance the integrity and character of the shoreline.

While Kirkland is blessed with many extraordinary waterfront parks, we should never lose sight of capturing opportunities when if additional waterfront property on Lake Washington becomes available. If privately held lakefront parcels adjacent to existing beach parks or at other appropriate locations become available, effort should be made to acquire these pieces. As new shoreline parks are acquired and developed, the ecological functions of the shoreline should be protected and enhanced.

Policy SMP-15.Policy SMP-18.2:* *Encourage water-oriented activities and programs within shoreline parks.

Kirkland's recreational programs provide opportunities for small craft programs such as canoeing/kayaking, sailing, rowing, and sail-boating. Programs oriented around non-motorized boating activities provide excellent opportunities to teach recreation skills emphasizing water and boating safety and should be expanded, where appropriate.

In addition, the City awards contracts to parties interested in occupying dock space in the Kirkland Marina and Second Avenue South Dock for commercial use. The City may also expand concession facilities within its parks. These types of commercial recreational uses, which expand opportunities for the public to enjoy the shoreline, should be encouraged within the City's shoreline parks.

Policy SMP-15.Policy SMP-18.3:* *Continue use of opened waterfront street ends for public access.

Street ends are also wonderful opportunities to expand the public's access to the waterfront. The City has developed ~~three-four~~ street ends for the public's use and enjoyment. They are located along Lake Washington Boulevard at Street End Park, Settler's Landing, 10th Avenue South and 5th Avenue South and ~~located at~~ Second Street West. The City has also plans in place for development of the Lake Avenue West Street End Park.

~~The City has investigated the potential to open 4th Street West and 5th Street West, but has determined that this is not feasible due to problems with existing access to the shoreline area. These street ends should be retained in public ownership for open space purposes.~~

Policy SMP-15, Policy SMP-18.4: Explore opportunities for use and enjoyment of unopened street ends.

Presently, two waterfront street ends, 4th Street West and 5th Street West, remain unopened for public use. The ability to use these street ends for public use is presently impacted by a lack of public access from the land to the street end. If the City decides to open the street end for public use, it should work with the community and neighboring residents to prepare and adopt a development and use plan.

Policy SMP-18.5 Ensure that development of recreation uses do not adversely impact shoreline ecological functions.

The development of recreational facilities has the potential to adversely impact shoreline ecological functions, for instance by increasing the amount of physical access and activity as well as overwater coverage and motorized watercraft access. As a result, recreational uses shall be appropriately sited and planned to minimize any resultant impacts.

Goal SMP-19: Protect and restore publicly owned natural resource areas located within the shoreline area.

Policy SMP-19.1: Manage natural areas within the shoreline parks to protect and restore ecological functions, values and features.

Kirkland is fortunate to have two of Lake Washington's largest and most important wetland and wildlife resources in its public park system: Juanita Bay Park and the Yarrow Bay wetlands, both of which have been mapped as priority wetlands by the Washington Department of Fish and Wildlife (WDFW). Both the Yarrow Bay wetlands and Juanita Bay Park extending up Forbes Creek corridor provide excellent habitat for birds, amphibians, mammals and reptiles. The outlets for three of the most prominent streams within the City, Juanita Creek, Forbes Creek and Yarrow Creek, are also located within the City's shoreline parks. These streams are known to support anadromous fish/salmonids. In addition, the Forbes Creek corridor has been designated by WDFW as a priority "riparian zone" due to its high fish and wildlife density, species diversity, important fish and wildlife breeding habitat, important wildlife seasonal ranges, high vulnerability to habitat alteration, and presence of unique or dependent species.

Preserving wildlife habitat, water quality, and forested areas is an important aspect of good park resource management. The existence of these natural areas also offers a variety of opportunities for aesthetic enjoyment, and passive and low-impact recreational and educational activities.

In order to protect wildlife habitat within Juanita and Yarrow Bay, it may be necessary to manage watercraft access, such as establishing restricted areas or limiting vessel speeds or other operations.

Policy SMP-19.2: Promote habitat and natural resource conservation through acquisition, preservation, and rehabilitation of important natural areas, and continuing development of interpretive education programs.

The City parks also present an opportunity to implement restoration activities to improve degraded wetlands and habitat, control the spread of noxious plants, and improve the water quality of streams. As noted in the Final Kirkland Shoreline Analysis Report (December 2006), the City has initiated several studies to address restoration opportunities within Juanita Beach Park and Juanita Bay Park. In addition, the City has adopted a 20-Year Forest Restoration Plan to restore Kirkland's urban forests by removal of invasive plants and planting native species for the sustainability of the forest and its habitat. The City has acquired properties within the shoreline area near the Yarrow Bay wetlands impacted by critical areas and will continue to explore similar acquisition opportunities. The Parks Department has also established an interpretive program in Juanita Bay Park and will evaluate appropriate opportunities to expand this type of educational resource within natural areas.

Goal SMP-20: Use a system of best management practices and best available technologies in the construction, maintenance and renovation of recreational facilities located in the shoreline environment.

The high visibility and use of Kirkland's waterfront parks require high levels of maintenance, periodic renovation, and security. Swimming beaches, docks, recreational moorage facilities, boat ramps, and shoreline walkways must be kept safe and in good condition for the public's enjoyment and use. Maintenance of these recreational facilities should be done in a way that minimizes any adverse effects to aquatic organisms and their habitats. Renovation of these areas also provides an opportunity to restore areas impacted by historical shoreline modifications such as alteration of shoreline vegetation, construction of bulkheads, and piers and docks.

Policy SMP-20.1: Incorporate salmon friendly dock design for new or renovated docks and environmentally friendly methods of maintaining docks in its shoreline parks.

Overwater coverage and in-water structures can adversely impact ecological functions and ecosystem-wide processes. As the City renovates or constructs new overwater structures, it should incorporate impact minimization measures, such as minimizing widths of piers and floats, increasing light transmission through any over-water structures, enhancing the shoreline with native vegetation, improving shallow-water habitat, and reducing the overall number and size of pier piles, in order to minimize the impacts of these structures. Opportunities exist to reduce overwater coverage and in-water structures in a number of shoreline parks, including Juanita Beach Park, Waverly Beach Park, the Lake Avenue West street end park, Marina Park, David E. Brink Park, Marsh Park, and Houghton Beach Park.

Kirkland contains a number of docks and piers within its shoreline parks, including at Houghton Beach Park, Marsh Park, David E. Brink Park, Marina Park, Waverly Beach Park, Juanita Beach Park, Juanita Bay Park, Settler's Landing, and the Second Avenue Right-of-Way in the Downtown. To maintain these docks and piers, replacement of the decking is needed on a routine basis. The City has obtained a Hydraulic Project Approval from the Washington Department of Fish and Wildlife to cover this maintenance activity and, as part of this

permit, grating will be installed in lieu of existing solid boards when the boards are replaced, allowing for greater light transmission through these overwater structures.

Policy SMP-20.2: Minimize impacts to the natural environment and neighboring uses from boat launch facilities to the greatest extent feasible.

Kirkland's public boat launch at Marina Park contains a one-lane facility for trailerable boats. This facility provides important access to Lake Washington, but has experienced several problems including poor traffic circulation and congestion. The City employs use regulations for this facility in order to minimize impact; these regulations are monitored under the Dock Masters program. Recently, the trailer parking was improved in Waverly Park. Continued management of the facility should be ~~completed~~maintained in order to minimize these impacts to the greatest extent feasible.

If, in the future, the boat launch at Marina Park were to relocate, the City should cooperate with other jurisdictions to assure that this regional need is addressed with regional participation and resources.

Policy SMP-20.3: Incorporate salmon-friendly landscape design practices in shoreline parks.

The City's parks and natural areas are a reflection of the values of the Kirkland community. The Parks Department strives to ensure that the public landscape remains attractive, while meeting the expectations of our users and preserving our parks and natural spaces for generations to come.

Opportunities exist to improve nearshore native vegetation in a number of shoreline parks, including Juanita Beach Park, Waverly Beach Park, the Lake Avenue West street end park, Marina Park, David E. Brink Park, Settler's Landing, Marsh Park, and Houghton Beach Park. Restoration activities could include such practices as native plant buffers at the shoreline edge, control of noxious and invasive species, implementation of sound horticultural practices, use of Integrated Pest Management (IPM) techniques, organic fertilizers, and natural lawn care practices.

Since 1998, the Kirkland Parks Department has been following an Integrated Pest Management (IPM) program. IPM is a sustainable approach to managing pests by combining cultural, mechanical, biological and chemical methods in a way that provides effective and efficient maintenance of the City's park system.

The objectives of the IPM policy are:

- Protect the health, safety and welfare of the environment and community.
- Provide efficient, cost effective maintenance of the City's park system using non-chemical controls whenever possible.
- Design new and renovate existing landscape areas that suit site conditions with sustainable maintenance practices.
- Restore, create and protect environmentally valuable areas such as wetlands, riparian areas, forests, meadows, and wildlife habitat.

The IPM decision making process brings into play multiple strategies that are utilized as tools to help implement the program, including (but not limited to):

- The use of sound horticultural practices to optimize plant health and suppress insects, disease and weed growth
- Site appropriate design with the use of disease and drought tolerant native plants.
- The use of natural control agents that act as predators or parasites of pest species.
- The use of beneficial organisms that improve plant health by enhancing the soil quality.
- The use of a variety of tools, equipment and, most importantly, people to assist with pest control.

The long-range goal of this program is for the parks and open spaces to be pesticide-free.

The Kirkland Parks Department is undertaking efforts to control invasive vegetation, including eradication and replanting with native vegetation, within Juanita Bay Park, under the recommendations contained within the *Juanita Bay Park Vegetation Management Plan* prepared in 2004 by Sheldon & Associates Inc. It divides the park into 10 management areas by habitat type that are distributed among three landscape zones based on location and historic use. Goals and objectives were established for each landscape zone, and then treatments were suggested for each management area within the landscape zones. The primary objective for the less developed landscape zones is removal of invasive species and replacement with native species, as well as supplementation of existing native vegetation to increase species and habitat diversity.

The Kirkland Parks Department has also initiated a program to install water intakes in Lake Washington for use as irrigation of Kirkland Parks. The water withdrawn from Lake Washington by Parks would be used to irrigate eight parks, which are currently provided with irrigation water from the City's potable water system. ~~The hookups to the City's water system would be maintained in the event that lake waters become temporarily contaminated by spills or herbicide treatments of aquatic vegetation in the Yarrow Point or Hunts Point areas and are temporarily unsuitable for application to City parks.~~ In conjunction with this project, the Parks Department plans to install vegetation along the shoreline edge.

Policy SMP-20.4 Minimize impacts from publicly initiated aquatic vegetation management efforts.

The Kirkland Parks Department undertakes mechanical aquatic vegetation management efforts at both Houghton and Waverly Beach Parks to control milfoil. After attempts to use biological and mechanical means to control aquatic invasive species at Juanita Bay Park, the Kirkland Parks Department has initiated an herbicide application. Aquatic vegetation management efforts can have potential negative impacts relevant to the Lake Washington environment and therefore control efforts should be designed to use a mix of various methods with emphasis on the most environmentally sensitive methods.

Policy SMP-20.5: Control non-native species which impact Kirkland's shoreline.

The City Parks Department periodically undertakes programs to control non-native species along the shoreline. For instance, the Parks Department has planned improvements within Juanita Beach Park to reduce waterfowl impacts at this park. Programs aimed at controlling impacts associated with non-native species use of the waterfront should continue. Any programs initiated should be designed to minimize any potential impacts to native species.

Policy SMP-20.56: Implement Low Impact Development techniques, where feasible, in development of or renovations to recreational facilities along City shorelines.

Low impact development strives to mimic nature by minimizing impervious surface, infiltrating surface water through biofiltration and bio-retention facilities, retaining contiguous forested areas, and maintaining the character of the natural hydrologic cycle. Utilizing these practices can have many benefits, including improvement of water quality and reduction of stream and fish habitat impacts. The Parks Department has successfully incorporated low-impact development techniques with park development efforts, such as Waverly Park and Watershed Park. These techniques should also be considered for any improvements within shoreline parks.

Opportunities exist to reduce impervious surface coverage in a number of shoreline parks, including, Waverly Beach Park, Street End Park, and Marsh Park and LID should be explored as a means to reduce this coverage.

Policy SMP-20.67: Reduce or modify existing shoreline armoring within Kirkland's shoreline parks to improve and restore the aquatic environment.

Bulkheads or other types of shoreline armoring can adversely impact ecological functions and ecosystem-wide processes. Kirkland contains a number of structural shoreline stabilization measures, such as concrete or rip-rap bulkheads, within its shoreline parks. Opportunities exist to reduce shoreline armoring in a number of shoreline parks, including Waverly Beach Park, Marina Park, David E. Brink Park, Settler's Landing, Marsh Park, and Houghton Beach Park. If repair or replacement is needed to these existing structures, the Parks Department should explore the use of nonstructural measures. Further, new development within the City's parks should be located and designed to eliminate the need for new shoreline modification or stabilization.

Goal SMP-21: Undertake restoration opportunities to improve shoreline ecological functions and ecosystem-wide processes where feasible.

The City's shoreline parks present opportunities for restoration that would improve ecological functions, including reduction of shoreline armoring, reduction of over-water cover and in-water structures, improvement of nearshore native vegetation cover, reduction of impervious surface coverage, control of invasive vegetation, and improvement of fish passage where possible.

In addition, many projects planned under the Surface Water Management Utility would provide wetland enhancement, fish passage improvement, bioengineered streambank erosion, restoration of armored streambanks, flood abatement, and water quality improvement. While many of these projects are planned 'upstream' of shoreline jurisdiction, they can still have positive effects on the shoreline environment.

Circulation

Note: The Transportation Chapter of the Comprehensive Plan contains a set of goals policies relating to vehicular, bicycle and pedestrian circulation.

Streets

Goal SMP-22: Provide for safe and efficient movement of vehicles, bicycles and pedestrians within the shoreline area, while recognizing and enhancing the unique, fragile and scenic character of the shoreline area.

Policy SMP-22.1: Maintain a roadway network which will efficiently and safely provide for vehicular circulation within the shoreline area.

The existing vehicular circulation system in Kirkland's shoreline area is largely complete, with several major roadways located within the shoreline jurisdiction, including portions of Lake Washington Boulevard NE/Lake Street South and Market Street/98th Avenue NE, as well as neighborhood access streets and driveways. The City should undertake improvements, as necessary, to address needed safety, capacity or efficiency improvements within the shoreline area.

Policy SMP-22.2: Enhance Lake Washington Blvd NE and Lake Street S to improve their function for scenic views, and recreational activities, as well as for local access and as a commute route.

Lake Washington Boulevard is designated as a major arterial and provides the major north-south route through Kirkland south of the Central Business District and west of I-405. The Boulevard also provides local access for a substantial number of residential developments and businesses. The Boulevard functions as a major pedestrian and bicycle corridor, serving waterfront park users, joggers, strollers, and downtown shoppers. The City should continue to manage this network to meet the needs of the broad variety of users, while maintaining the scenic quality of this roadway network.

Traffic along Lake Washington Boulevard and Lake Street S has increased over time, restricting local access to and from these streets and creating noise, safety problems, and conflicts for pedestrians, bicyclists, and adjacent residents. Solutions to these problems should be sought which recognize that these streets have a scenic and recreational function which is as important as its function as a commute route. Improvements to these streets should help accommodate their broader amenity function in such a manner that the safety of all the diverse users is enhanced. Accordingly, the following improvements would be desirable:

- Widening of sidewalks or development of landscape strips or landscaped median islands to separate traffic and provide pedestrian safety.
- Installation of pedestrian crossings at intersections and adjacent to waterfront parks where safety considerations allow such installation.
- Continuation and widening of bicycle lanes.
- Limitations on the number of new curb cuts and consolidation of driveways, where possible.

- Restrictions on turning movements by installation of c-curbs or other techniques, where needed.

Policy SMP-22.3: Design transportation improvement projects within the shoreline to avoid, minimize and mitigate environmental impacts.

Transportation facilities should be designed to have the least possible effect on shoreline features. When planning transportation facilities, both public and private, the environmental impacts of the facility need to be evaluated and minimized, and appropriate mitigation included. Environmental impacts of transportation facilities and services can include wetland and stream encroachment, vegetation removal, air quality deterioration, noise pollution, and landform changes.

Policy SMP-22.4: Design transportation improvement projects to maximize opportunities to improve existing shoreline ecological functions.

Transportation improvement projects located within the shoreline should include provisions for shoreline vegetation restoration, fish and wildlife habitat enhancement, and low impact development techniques, where practicable and feasible.

Policy SMP-22.5: Design transportation improvement projects to enhance scenic amenities and reflect neighborhood character.

Roadways should be designed to maximize views of the lake, where feasible. Shoreline roadways should also be designed with pedestrian improvements, such as widened sidewalks, and amenities such as benches or view stations and public sign systems that identify significant features along the shoreline such as historic or scenic features, parks and public access easements. In addition, appropriate landscaping and street tree selection should be used for rights-of-way with public views to maintain the views as the vegetation matures.

Policy SMP-22.6: Incorporate best management practices into road and utility maintenance activities.

Road maintenance activities are necessary to clean out sediment and debris from drainage systems, which provides benefits to salmon habitat by preventing pollutants and sediments entrapped in stormwater facilities from entering surface or groundwater. The activities can also have adverse water quality impacts, directly effecting aquatic species. In order to minimize any potential adverse impacts, the City road maintenance crews should continue to use best management practices, such as those incorporated into the Regional Road Maintenance ESA Program Guidelines, to guide their maintenance activities. The Regional Road Maintenance ESA Program Guidelines (Regional Program) describes physical, structural, and managerial best management practices designed so that when they are used, singularly or in combination, they reduce road maintenance activities' impacts on water and habitat.

Pedestrian/Bicycle Circulation

Goal SMP-23: Provide the maximum reasonable opportunity for the public to view and enjoy the amenities of the shoreline area.

Policy SMP-23.1: Provide a public access system that is both physical and visual, utilizing both private and public lands, consistent with the natural character, private rights and public safety.

Public access includes the ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations. Public access is a key component of the Shoreline Management Act and is one of the preferred uses in the shoreline area and should be encouraged, both in private and public developments and public acquisition.

Developing public access to the shoreline area has long been a priority of the City. Except for single-family residential areas or environmentally sensitive areas, the City has sought development to provide public access to the water's edge and along the shoreline as much as possible. Based on this approach, the City has made significant progress towards establishing continuous pedestrian access along the water's edge along portions of the shoreline.

In addition to these public access easements, the City has, over time, acquired many shoreline properties and designated these properties for park/open space and developed access trails.

Policy SMP-23.2: Enhance and maintain pedestrian and bicycle infrastructure within the shoreline area.

Pedestrian and bicycle movement on and off roadways in the shoreline area should be encouraged wherever feasible. Access points to and along the shoreline as well as shoreline recreational facilities should be linked by pedestrian and bicycle pathways developed as close to the water's edge as reasonable.

The City should work to infill key gaps in existing shoreline access by connect existing pathways and linking existing access points to and along the shoreline, where feasible. In addition, the City should work to complete bicycle improvements by infilling gaps in existing routes and making any necessary safety improvements.

The following identifies some of the key opportunities available to improve public access. Some of the sites are located within the shoreline area, while others located outside the shoreline jurisdiction are represented since they provide an important connection to the shoreline. These connections should be sought, either through a required condition of development, or, where appropriate, through use of public funds to acquire and develop public pedestrian walkways:

- Connecting Juanita Bay Park and Juanita Beach Park. The city should seek to complete a public pedestrian walkway along the shoreline from Juanita Bay Park to Juanita Beach Park. Because of the presence of wetlands, the walkway should be designed so as to cause the least impact. The City should also pursue improvements to connect the existing bicycle lanes along Market Street to those on Juanita Drive.
- Juanita Bay Park - provide an additional connection from the causeway to the lake if protection of the natural features can be reasonably ensured.
- Forbes Valley Pedestrian Facility – provide a sidewalk adjacent to Forbes Creek Drive to connect Crestwoods Park and Juanita Bay Park.

- 9th Street West – between Market Street and 20th Street across Juanita Bay Park should be improved for both pedestrians and bicycles.
- 10th Street West - connecting Kiwanis Park and Juanita Bay Park.
- Waverly Way – should be improved with sidewalk on the west side of the street. View stations at the unopened street ends at 4th Street West and 5th Street West along Waverly Way should also be considered.
- Lake Avenue West Street End Park – complete a pedestrian pathway across Heritage Park from Waverly Way to the Street End Park.
- In downtown south of Marina Park. In this area, buildings and parking lots interrupt the shoreline trail system that has been established on adjoining properties. Whenever possible, this shoreline trail system should be completed, in order to build upon this community amenity and open space.
- Lake Washington Blvd NE – gaps in the existing public waterfront trail with connections to the Boulevard should be a required element of all shoreline developments other than single-family homes. Public use areas also should be encouraged adjacent to the westerly margin of Lake Washington Boulevard. The Boulevard is now a popular path for pedestrians, joggers, and bicyclists, and the continued improvement of this corridor as a promenade with wide sidewalks and public use areas, such as benches or view stations, pedestrian scale lighting, and public sign systems, would be a significant public asset.

The City of Kirkland Nonmotorized Transportation Plan (NTP), together with any additional routes identified in Neighborhood Plans, maps most of the bicycle and pedestrian facilities planned for future development. The Capital Improvement budget process prioritizes when routes will receive funding for improvements.

Policy SMP-23.3: Require public access to and along the water's edge and waterfront public use areas with new development or substantial redevelopment, except in limited circumstances.

In general, new development or substantial redevelopment should be required to install a public trail along the entire length of the waterfront with connections to Lake Washington Boulevard at or near each end. Areas which are available for other public waterfront activities also should be strongly encouraged. A public trail should not be required associated with the construction of an individual new single-family residence or where it is demonstrated to be infeasible due to impact to the shoreline environment or due to constitutional limitations.

Policy SMP-23.4: Minimize impacts on adjacent uses and the natural environment through the appropriate design of public access. Public access should also be designed to provide for public safety.

Developments required to provide public pedestrian access should be designed to minimize the impacts of the public access to adjoining properties, where possible, such as visually or physically separating the public pedestrian access from adjacent private spaces, or by placing an intervening structural or landscape buffer. The city may permit the establishment of reasonable limitations on the time, extent, and nature of public access in order to protect the natural environment and the rights of others.

In addition, public access trails should be located and designed to assure that users are visible and that pathways are well illuminated, if open in hours of darkness.

Public access through sensitive areas should be designed to avoid or minimize impacts to sensitive areas such as wetlands or streams or their protective buffers.

Policy SMP-23.5: Cooperate on interagency and public-private partnerships to preserve and enhance water trails along Kirkland's shoreline where feasible.

The Lakes-To-Locks Water Trail is a day use trail with over 100 public places in a series of lake and rivers extending from Issaquah to Elliot Bay to launch and land small non-motorized boats. The Lakes-to-Locks Water Trail contains nearly a dozen launch, landing and rest sites along Kirkland's Shoreline. The City should continue to participate in this type of partnership to increase access and use of the City's shoreline.

Air and Water Access

Goal SMP-24: Provide opportunities for transportation alternatives, such as access by land or water.

Policy SMP-24.1: Explore opportunities to establish passenger-only ferry service along Kirkland's shorelines.

As the roads and highways in the region have increasingly reached full capacity, there has been renewed interest in re-establishing waterborne transportation in Lake Washington, particularly passenger-only ferries. King County has established a county-wide Ferry District, which plans to consider the delivery of passenger-only ferry services serving destinations in King County, including a route between Kirkland and Seattle. The City should participate in this effort and ensure that issues affecting the businesses and residents of Kirkland, such as location, traffic and parking, and the shoreline environment, are adequately addressed.

Policy SMP-24.2: Allow limited floatplane operations in commercial shoreline areas.

Floatplanes can be used for both commercial and recreational purposes. Commercial operations can include a variety of activities including air charter and scheduled air operations. These activities are water-dependent and should be permitted within high intensity shoreline commercial districts in limited circumstances, if evaluated through a public review process and where it has been determined that the facility or operation has been designed to minimize impacts, including impacts on native fish and wildlife and their habitat, as well as impacts to shoreline views and community character. Further, the operation of these facilities should ensure protection of adjacent development and uses as well as human safety, including limiting noise and other impacts on residential uses. Floatplane facilities should be located so they do not interfere with public swimming beaches or boating corridors. The floatplane operations should comply with state and federal requirements.

Policy SMP-24.3: Limit helicopter landing facilities in the shoreline area.

Helicopter operations are not water-dependent and can include significant environmental issues such as noise pollution. As a result, helicopter landing facilities should not be permitted in the shoreline area, except as needed for emergency medical airlift.

Utilities

Goal SMP-25: Manage the provision of public and private utilities within the shoreline area to provide for safe and healthy water and sanitary sewer service, while protecting and enhancing the water quality and habitat value of the shoreline.

Policy SMP-25.1: Locate new utilities and related appurtenances outside of the shoreline area, unless this location is reasonably necessary for the efficient operation of the utility.

Utilities are services that produce and carry electric power, gas, sewage, water, communications and oil. The provision of these services and the appurtenances associated with them can create substantial impacts on the landscape and the functioning of the natural ecosystem. To minimize potential impacts, these facilities should be located outside of the shoreline area, and in particular, outside of the aquatic environment, where feasible. If necessary within the shoreline, utility facilities should be located and designed in a manner that preserves the natural landscape and shoreline ecology, and minimizes conflicts with present and planned land uses.

Alternative energy use such as solar- and wind-based energy systems should be encouraged within the shoreline environment, provided that any potential adverse impacts are minimized.

Policy SMP-25.2: Minimize impacts from the location, design, and maintenance of utility facilities located within the shoreline.

Careful planning and design is required to address impacts such as soil disturbance and intrusion on the visual setting. Potential adverse impacts should be minimized through the location, design and construction techniques used. For instance, where utility systems cross shoreline areas, clearing for installation or maintenance should be kept to a minimum width necessary to minimize impacts to trees and vegetation. Utilities should also be properly installed and maintained to protect the shoreline environment and water from contamination. The City should require location of utility lines prior to construction to avoid damaging the lines, incurring biological impacts, during construction.

Upon completion of utility installation or maintenance projects on shorelines, the shoreline area should be restored to pre-project configuration, replanted with native species and provided with maintenance care until the newly planted vegetation is established.

Policy SMP-25.3: Encourage consolidation of utilities within existing rights-of-way or corridors.

In order to minimize the extent of shoreline modified by improvements, utility facilities should utilize existing transportation and utility sites, rights-of-way and corridors whenever practicable, rather than creating new corridors in the shoreline environment. Joint use of rights-of-way and corridors in shoreline areas should be encouraged.

Policy SMP-25.4: Locate utility facilities and corridors to protect scenic views and prevent impacts to the aesthetic qualities of the shoreline.

Utility lines and facilities, when they must be placed in a shoreline area, should be located so that they do not obstruct or destroy scenic views. Whenever feasible, these facilities should be placed underground, or designed to do minimal damage to the aesthetic qualities of the shoreline area.

Shoreline Design

Goal SMP-26: Maintain and enhance Kirkland's orientation to and linkages with Lake Washington.

Policy SMP-26.1: Preserve public view corridors along the City's street networks and public parks.

The street and waterfront park system provides a large number of local and regional views. The view corridors that lie within the public domain are valuable for the beauty, sense of orientation, and identity that they provide to Kirkland. The views also maintain the visual connection and perception of public accessibility to the lake. As a result, these views should be kept free of obstruction.

Policy SMP-26.2: Locate and design new development to provide view corridors of Lake Washington from Lake Washington Boulevard and Lake Street South south of the Central Business District.

Kirkland's history, identity and character are strongly associated with its proximity and orientation to Lake Washington. Lake Washington Boulevard and Lake Street are the street from which most residents and visitors view the lake, providing a lasting visual impression and helping to establish the visual identity of the City. As a result, visual access to Lake Washington from Lake Washington Boulevard and Lake Street should be an integral element in the design of development along the west side of these streets. Both public and private development in these areas should be designed to include an open area that provides an unobstructed view of the water beyond. View corridors should be situated on the property to provide the widest view of the lake. Existing structures in some areas block views of the Lake. With renovation of existing structures, opening up of views should be encouraged.

The Central Business District (CBD) is a community activity area focused around its historic waterfront with extensive public use and views of the waterfront provided by public parks, street ends, public and private marinas, public access piers and shoreline public access trails. Because of this configuration and the desire to provide continuous pedestrian-oriented retail activity at the street, view corridors across private properties in the CBD should not be required.

Policy SMP-26.3: Explore opportunities to provide visual and pedestrian access from Central Way and Lake Street with redevelopment efforts.

The City should explore opportunities to participate in a public/private partnership to redevelop the commercial block between Kirkland Avenue and Central Way with visual and pedestrian access from a series of at-grade pedestrian connections from Central Way and Lake Street which would open to a large public plaza constructed west of the buildings to enhance the Downtown's lake front setting

Policy SMP-26.4: Design water-enjoyment uses to provide significant opportunities for public enjoyment of the aesthetic, natural and recreational amenities of the shoreline.

Water-enjoyment uses, such as restaurants, hotels or other mixed-use commercial projects, bring substantial numbers of people to the shoreline and provide opportunities for the public to enjoy shoreline amenities. These

uses are encouraged in urban mixed areas, such as Kirkland's downtown area, and should be designed to respond to their shoreline location through a variety of measures, including the following:

- Architectural or site design elements that connect visually or physically to the lake.
- Orientation of views and windows to the lake
- Orientation of entries, sight lines, buildings, pathways and other design elements to the shoreline.
- Incorporating interpretative signs,
- Locating service areas away from the shoreline.
- Incorporating substantial landscaping and open space.
- Providing outdoor seating or gathering places along the shoreline.
- Designing signs to be compatible with the aesthetic quality of the shoreline.

Enhancement of views should not take precedence over vegetation conservation and, as such, removal of vegetation necessary for shoreline function should not be allowed in cases where views are partially impaired by existing vegetation. New landscaping should be appropriately designed to preserve designated view corridors.

Archaeological, Historic and Cultural Resources

Goal SMP-27: Identify, protect, preserve, and restore important archeological, historical, and cultural sites located in the shoreline area.

Kirkland's shoreline area has a long history, dating back to use of Juanita Bay by Native Americans and use of Lake Washington for fish harvest by the Muckleshoot Tribe. The shoreline area also contains many historic structures, including residential structures and vessels moored along the City's shoreline.

Policy SMP-27.1: Prevent destruction or damage to historic, cultural, scientific or educational resources located along the shoreline.

Steps should be taken to identify, recover and preserve any artifacts or other resources that may exist along the City's shoreline. The City should work with property owners and tribal, state, and federal governments as appropriate to assess sites and make arrangements to preserve historical, cultural and archaeological values in advance of planned development. Proposed development should be designed and operated to be compatible with continued protection of the historic, cultural or archaeological resource. If development occurs in areas documented to contain archaeological resources, a site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes should be required prior to issuance of permits. If archaeological resources are uncovered during excavation, work on the site should immediately stop and notification to the City, the state Office of Archaeology and Historic Preservation, and affected Indian tribes should be made to determine the appropriate course of action.

Policy SMP-27.2: Encourage educational projects and programs that foster an appreciation of the importance of shoreline history.

Site development plans should incorporate measures for historic, cultural and archaeological resource preservation, restoration and education with open space or recreation areas whenever possible. Wherever feasible, shoreline development should recognize the former use of much of the city's shoreline area for such uses as boat yards, ferry landings and industrial sites.

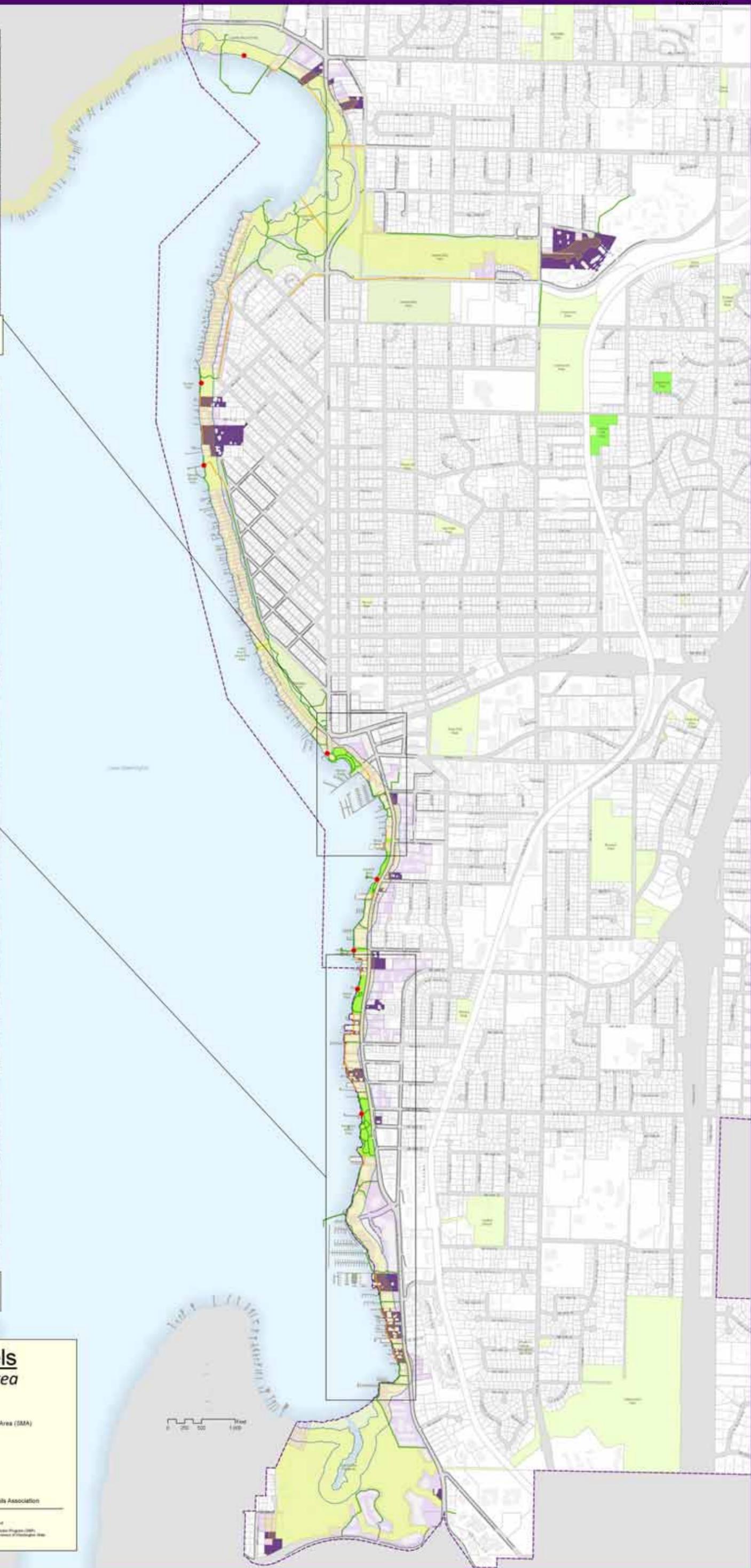
A paper copy of attachment 9 is available for review in Planning Department as part of file number ZON06-00017.



Downtown Detail
0 100 200 300 400 500 Feet



Lake Washington Blvd Detail
0 100 200 300 400 500 Feet



0 200 400 Feet

Buildable Tax Parcels Shoreline Management Area

- | Buildable Parcel Map Elements | Base Map Elements |
|--|--|
| <ul style="list-style-type: none"> ● Launch and Landing Sites* — Public Access Trails — Public Access Trails - Proposed — Existing Sidewalk — Public Access Areas ■ Buildable Tax Parcels within SMA ■ Tax Parcels Intersecting SMA | <ul style="list-style-type: none"> □ 200' from OHWM ■ Shoreline Management Area (SMA) ■ Park/Open Space ■ Building Footprints — Tax Parcel Boundary — Kirkland City Limits — Docks/Piers — Lakes |

*Launch and Landing Site Data Provided Courtesy of the Washington Water Trails Association

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Please note that current National Wetlands Inventory (NWI) data is used to determine the location of wetlands. The National Wetlands Inventory (NWI) data is not a guarantee of wetland location. The NWI data is not a guarantee of wetland location. The NWI data is not a guarantee of wetland location.
Kirkland, Washington
City of Kirkland

24.05.065 Public access element goal and policies.

(a) Goal. It is a goal of the city to provide the maximum reasonable opportunity for the public to view and enjoy the amenities of the shoreline area.

(b) Policies.

(1) Public pedestrian access along the water's edge of all shoreline development, other than single-family residential or where unique and fragile shoreline areas would be adversely affected, should be required of all developments.

(2) All developments required to provide public pedestrian access along the water's edge should connect this access to the right-of-way unless access to the water's edge can easily be gained via existing access points.

(3) All developments required to provide public pedestrian access should be designed to visually and physically separate the public pedestrian access from adjacent private spaces. The separation may be accomplished vertically, horizontally, or by placing an intervening structural or landscape buffer.

(4) In shoreline areas south of the Urban Mixed I Shoreline Environment, development should be controlled to allow for or enhance substantial visual openness from the frontage road to and beyond Lake Washington.

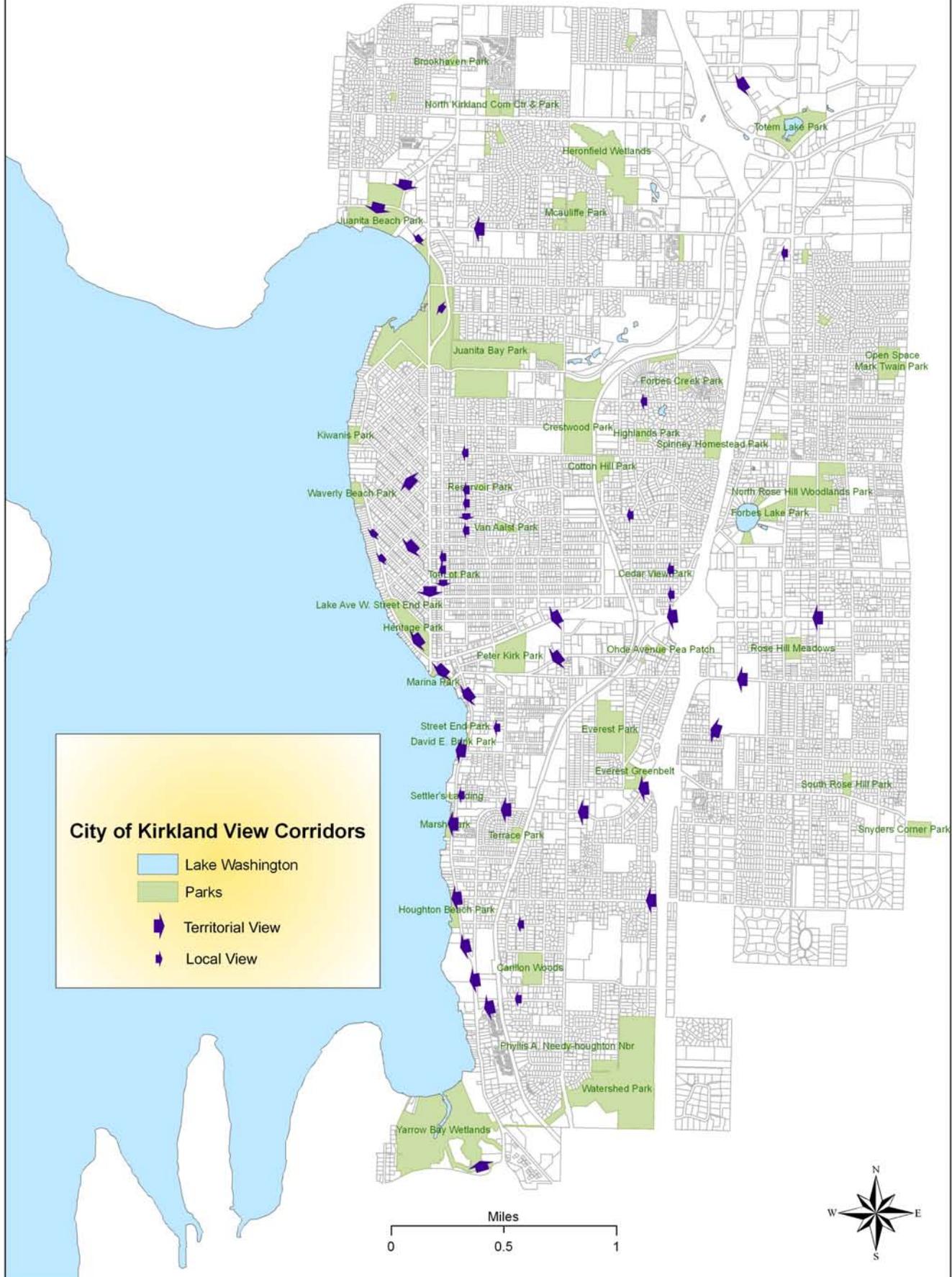
(5) The city should use street ends and other publicly owned or controlled land within the shoreline area as a means of providing additional public access to shoreline areas.

(6) South of the Urban Mixed I Shoreline Environment, the public right-of-way of Lake Street South and Lake Washington Boulevard should be developed to accommodate a pedestrian promenade. The promenade should consist of widened sidewalks, amenities such as benches or shelters and public sign systems identifying crosswalks, historic or scenic features, jogging trails, public parks and access easements.

(7) The city may establish or permit the establishment of reasonable limitations on the time, extent, and nature of public access in order to protect the natural environment and the rights of others.

(8) The city should seek to complete a public pedestrian walkway along the shoreline from Juanita Bay Park to Juanita Beach Park. This walkway should be a required condition of all development, other than single-family residential; or, where appropriate, the city may utilize public funds to complete improvements within the public pedestrian walkway. The walkway should consist of the continuance of the existing causeway. It should be designed so as to cause the least impact to these environmentally sensitive wetland areas and to private property. Their design may include portions elevated over wetlands or extended over the water. The walkway should include amenities such as benches or shelters, public sign systems, and information kiosks identifying the two public parks, historic or scenic features, jogging and bicycle trails, and access easements. (Ord. 3153 § 1 (part), 1989; Ord. 2938 § 1 (part), 1986)

Kirkland View Corridors



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.	<i>Correspondence (5-17 November 2007)</i>
Citizen/NGO (SPOCA)	3.3	Species/Habitat	Invasive Species	Urged the city to continue its current emphasis on removing and controlling invasive species		<i>Correspondence (5-17 November 2007)</i>
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.	<i>Correspondence (5-17 November 2007)</i>
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.		<i>Correspondence (5-17 November 2007)</i>
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.		<i>Correspondence (2-28-2008 and May 1, 2008)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i> ; <i>Correspondence (5-17 November 2007)</i>
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.	<i>Correspondence (5-17 November 2007)</i>
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.		<i>Official Correspondence and Houghton Community Council Meeting and letter dated May 1, 2008</i>
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.		<i>Correspondence (25 September 2007)</i>
Citizens/ Property Owners	4.8	Shoreline Master Program Process	Growth	Expressed concern that Kirkland was changing "rapidly".		<i>Correspondence (25 September 2007)</i>
Citizens/ Property Owners	4.8	Shoreline Redevelopment/ Restoration	Storm Water	Encouraged use of sand filters (e.g., treat run-off).		<i>Kirkland Public Forum: Updating Shoreline Master Program (September 2006)</i>
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	Warned of the dangers inherent 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.	<i>Official Correspondence (7-10 September 2007)</i>
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	<i>Official Correspondence (7-10 September 2007)</i>

1 - NGO = Nongovernmental Organization
SPOCA = Shoreline Property Owners and Contractor's Association

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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (August 2006)
Citizen	2.6; 4.4	Shoreline Redevelopment/ Restoration	Shoreline Vegetation	Expressed concern over the removal of trees from Heritage Park.	Referred to <i>City of Kirkland Natural Resource Management Plan</i> . Document identifies criteria for retaining trees.	Report on the Tour of Innovative Shoreline Design (30 September 2006); Public Comments provided on the <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 (<i>Storm water Utilities</i>) and the <i>Surface Water Master Plan</i> .	Report on the Tour of Innovative Shoreline Design (30 September 2006); Public Comments provided on the <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (August 2006)
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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (August 2006)
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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Final Shoreline Analysis Report</i>	Public Comments provided on the <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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.		<i>Correspondence (8 February 1999)</i>
Citizen	4.3	Shoreline Regulation		Referenced 'Figure 7a' concerning boatlifts	Two additional boatlifts were included in Figure 7a.	Public Comments provided on the <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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 <i>Draft Shoreline Master Program Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline</i> (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?		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.	<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.	<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>

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.	<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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).		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
NGO	3.4	Shoreline Master Program Process		Stated that central goal of the tour was for neighbors to learn from each other.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.	<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006) ; Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
Citizen	3.1	Shoreline Pollution/Trash		Raccoons using nearby storm water pipe		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.	<i>Kirkland Public Forum: Updating Kirkland's Shoreline Master Plan (18 September, 2006)</i>
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.		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>

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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.11; 2.12	Shoreline Redevelopment/Restoration		City should be as site-specific as possible when addressing shoreline conditions on private property.		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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."	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>

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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.5	Species/Habitat		A comment was made about the balance between salmon (a native species) and bass and sculpin (non-native)		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.6	Shoreline Regulation	Incentives	Reduce street setbacks for new homes, so as to keep homes farther away from the shoreline.		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.6	Shoreline Regulation	Boating practices	Could moorage rates be increased?		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.6	Shoreline Redevelopment/Restoration	Shoreline Vegetation	Could native trees be planted that support eagles and osprey?		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
Citizen	2.7	Shoreline Recreation	Boating practices	Could boaters could be directed toward the free pump station (at Yarrow Bay)?		<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.	<i>Report on the Tour of Innovative Shoreline Design (30 September 2006)</i>
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.		<i>Official correspondence and Houghton Community Council Meeting (February 25, 2008 and May 1, 2008)</i>

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.		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.		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.		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.		Planning Commission Meeting (March 13, 2008)
Citizen	5	Shoreline Regulation	Shoreline Stabilization	Concerned that removal of existing bulkheads will affect lot area.		Planning Commission Meeting (March 13, 2008)
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.		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.		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.		Letter (April 10 2008)
Citizen	3.3	Shoreline Goals and Policies		When comparisons are made with other cities, all jurisdictions on Lake Washington should be included for comparison.		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. 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.		Letter (May 8, 2008)
Citizen	3.3	Shoreline Goals and Policies	Invasive Species			Letter (May 8, 2008)

Citizen	3.3	Shoreline Master Program Process	Public Involvement	<p>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.</p>	<i>Letter (May 8, 2008)</i>
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Piers and Docks	<p>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.</p>	<i>Letter (May 1, 2008)</i>
Shoreline Permit Coordinator and Contractor	4.6	Shoreline Regulation	Best Available Science	<p>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.</p>	<i>Letter (may 1, 2008)</i>
	4.6	Shoreline Regulation	Shoreline Stabilization	<p>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.</p>	<i>Letter (May 1, 2008)</i>

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April 10, 2008

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Planning Commission
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Reference: Kirkland's Shoreline Master Program Update

In this letter I am providing comments to the materials dated April 3, 2008 prepared for the Kirkland Planning Commission and the Houghton Community Council. Attachment 5 in these materials contains my letter of March 24, 2008 where I provided comments on the earlier version of the goals and policies.

The revised draft policies reflect some of the points I raised earlier. However issues remain as to the feasibility, practicality, and acceptability of certain policies and goals. There are also questions about the scientific basis for certain conclusions. Additionally there is the issue of cost effectiveness linked to measurable results.

A prime example of feasibility and practicality concerns the focus of policies that direct planting vegetation to provide shade along the shoreline. Most of Kirkland's shoreline has a western exposure resulting in an inability of vegetation, as described, to provide shading of the water because of the direction of the sun. Furthermore, planting of vegetation on a beach or 'natural shoreline' would not last a season due to the impact of winter storm waves and boat wakes. Another function that is cited for shoreline vegetation is providing a habitat for wildlife. It is hard to imagine wildlife inhabiting the urban setting of Kirkland with all the human and pet activity.

The issue of the scientific basis of conclusions driving these Policies is first noted on Page 16 of the introduction. A conclusive statement is followed by "While there is still evolving scientific information on this issue..." Another example is found in SMP-11.6 where it states, "Due to the potential for adverse impacts..." Is this sufficient to justify policies which will drive huge expenditures of dollars over the years these policies are in effect? It is important for the Planning Commission, the City Council, and the public to know if personal viewpoints or scientific bases drive these Policies. If it is scientific then the reference should be footnoted in the Policies and cited in an Appendix. The importance of knowing this is best demonstrated by this example: the same report ¹ has been used as a basis by opposite viewpoints of the argument regarding impacts of shading caused by overwater structures.

Subjective conclusions appear in a number of places such as SMP-3.3 where it is stated that a native plant buffer provides a yard that is "safer for families, pets, and the planet". A similar statement appears in SMP-17.3. If included at all, should not these types of conclusions be flagged that they are indeed a personal viewpoint?

An example of a plant buffer is provided in Attachment 6, apparently an alternative for "stumps, root wads, overhanging vegetation, and branches in the water" that appeared in the earlier draft. SMP-20.3 cites restoration activities in city parks using native plant buffers. I would urge that the public be made aware of the exact description of this installation so as to ensure understanding and acceptance before adoption of these policies. SMP-17 retains the "stump" description so it is not clear which approach these policies support. In any event, it is important to remember that the DOE guidelines for SMP updates do not intend to restore the shoreline to pre-development conditions.

SMP-18 deals with invasive weeds and methods of eradication. It states that "herbicides may also pose impacts" and "many people have strong feelings against using chemicals..." SMP-20.3 cites lake waters being contaminated by herbicide treatments of aquatic vegetation in Yarrow Point and Hunts Point areas. Again, what is the scientific basis for these statements? A ten year effort in Portage Bay to eradicate invasive weeds utilized all methods described in this policy. Permitted and controlled use of herbicide has been the only effective method with no adverse environmental impacts as documented by soil samples and laboratory tests. Clear and cooler water has resulted and schools of native fish have returned.

¹ K.L. Fresh, et al. 2003. Habitat utilization by small mouth bass in the littoral zones of Lake Washington and Lake Union Ship Canal. 2003 Greater Lake Washington Chinook Workshoop, January 24, 2003

Comparisons are made with other cities, Sammamish, Redmond, and Bellevue. All jurisdictions on Lake Washington should be included wherever these comparisons are used in the policies.

In providing these comments I want to make it clear that shoreline property owners have a vital interest in the protection and enhancement of our shorelines and the ecology of our waters. We want to continue to work with you to achieve feasible and effective goals and policies. We appreciate the opportunity to be involved in Kirkland's SMP update process.

Very truly yours,



Richard K. Sandaas
Chair, SPOCA
PAA shoreline owner

fax

Subject: Invasive Weeds

Date: April 11, 2008

To: Stacy Clauson

From: Dick Sandaas

Fax Number: 425 587 3232

Phone Number: 425 823 2145

Comments:

Stacy:

Here's some more background information.

DRAFT

Safe methods are needed for control of invasive weeds: Does the Aquatic Plant and Algae Management General Permit provide the answer?

Abstract

The Washington State Department of Ecology believes their March 2006 Aquatic Plant and Algae Management General Permit (Aquatic Plant permit), which allows for herbicide treatments of noxious weeds in Washington's bodies of water, is safe and effective. The Washington Toxics Coalition believes that Ecology, in issuing the Aquatic Plant permit, has not followed the prescribed method for public comment, and that there are still environmental issues to be considered. The Shoreline Property Owners and Contractors Association is considering administratively and financially supporting the Department of Ecology in defending the issuance of the permit.

Introduction:

Pursuant to a 2005 settlement between the Washington Toxics Coalition and the Washington State Department of Agriculture, chemical treatment of noxious weeds during the 2005 treatment season was "essentially eliminated¹."

On March 1, 2006, the Washington State Department of Ecology (Ecology) issued an Aquatic Plant and Algae Management General Permit (Aquatic Plant permit) establishing a methodology for weed management, which took effect on April 1, 2006. According to published notes from the subsequent hearing, the permit was issued "under Ecology's state authority to issue waste discharge permits and under Ecology's delegated authority to issue National Pollutant Discharge Elimination System [NPDES] permits²." The purpose of the permit is to cover the discharge of products used to control aquatic plants and algae in Washington lakes. These products include "aquatic herbicides, algacides, biological clarification products, aquatic dyes, adjuvant, and nutrient inactivation products such as alum³."

The initial hearing for the case was conducted on June 6, 2006. After listening to concerns expressed by members of the public, Ecology decided to issue the permit as both a state waste discharge permit and an NPDES permit. After this announcement, several conditions were added to the permit in order to comply with NPDES requirements. Ecology did not reopen the public comment period following these changes and the Washington Toxics Coalition (WTC) contends that, as a result, the public has been deprived of an opportunity to comment.

The permit establishes three methods of weed management depending on the severity of the weed and its classification. The first is a method of "eradication" for state-listed noxious weeds. The second is "weed 'control,' which involves the partial removal of aquatic plants within a water body or along a shoreline to allow for the

¹ State of Washington, Environmental hearings office notes from June 6, 2006 with Phyllis K. Macleod administrative appeals judge presiding. Page 5.

² State of Washington, Environmental hearings office notes from June 6, 2006 with Phyllis K. Macleod administrative appeals judge presiding. Page 4.

³ Washington State Department of Ecology, *Aquatic Plant and Algae Management General Permit*, issued March 1, 2006.

protection of water body's beneficial uses." The last method of weed management is called "nutrient inactivation," which is conducted by "changing sediment release characteristics in an effort to make the limiting nutrient less available in water." This last technique is effective for keeping algae production at a manageable level during peak recreation seasons.

The Department of Ecology argument:

After extensively researching all of the herbicides that are permitted under the Aquatic Plant permit, Ecology has concluded that there is no likelihood of harm to ecosystems, aquatic life, or human health if the products are applied as the permit allows. Detailed risk assessment and environmental impact statements for each possible pesticide have been completed by Ecology.

Records from Ecology demonstrate that failing to treat invasive weeds can pose a threat to the safety of people using the waters as well as the ecosystems that are trying to exist in the water. Ecology indicated that weeds negatively affect the biodiversity of the lake ecosystem, which often results in a loss of suitable habitat for fish and wildlife. Yacht clubs expressed concern and submitted evidence showing that the weeds around their property interfere with the safety of their youth boating programs that are offered during the summer months. Also, motorboat operators have experienced loss of steering and damage to their propellers when trying to navigate near marinas that are overridden with the weeds. Other areas negatively impacted by the weeds include power generation, water supply and irrigation, and fishery degradation.

Ecology has considered non-chemical methods for treating noxious weeds. However, these applications have proved less effective and more costly in some locations. Near marinas, mechanical harvesters have trouble navigating through boat traffic, and cutting and harvesting weeds creates fragments, which are a "primary reproductive method for two of the most prevalent weeds⁴." The harvesters also capture and kill small fish, invertebrates, and amphibians.

Ecology realizes that timing the chemical treatments is crucial to protect fish species present in the affected areas. To this effect, the Washington State Department of Fish and Wildlife, as well as the National Marine Fisheries Service and the United States Fish and Wildlife Service, were involved in establishing "fish windows," which limit chemical applications to identified time periods for many different bodies of water throughout the state. Applicable fish window restrictions are explicitly included in each permit coverage approval granted by Ecology.

The Washington Toxics Coalition argument:

The WTC contends that the Aquatic Plant permit "fails to adequately protect water quality, wildlife, and public health from dangerous pesticides in violation of the federal Clean Water Act and Washington state law⁵." The Coalition alleges that the permit violates these laws because the permit removes frequent Ecology oversight of pesticide applications by allowing applicators to spray pesticides for five years without reapplying for permit coverage. Also, the WTC claims the permit "eliminates important

⁴ State of Washington, Environmental hearings office notes from June 6, 2006 with Phyllis K. Macleod administrative appeals judge presiding. Page 9.

⁵ Press release, Washington Toxics Coalition, March 20, 2006.

planning requirements that ensure the most effective and least harmful method of control are used⁶." This fault denies Ecology the opportunity to refuse permit coverage where alternatives to spray exists.

The Coalition's campaign, "Clean Water for Salmon," the stated objective of which is to safeguard Washington's water quality for the benefit of diminished salmon populations, focuses on reducing pesticide applications in favor of alternative means of weed control. While no specific harms to identified species are demonstrated by WTC's evidence, the Coalition contends that, if pesticides are used to treat invasive weeds, irreparable harm to salmon will occur.

The Coalition contends that the Aquatic Plant permit is "inconsistent with the detailed regulatory requirements for obtaining a short-term modification of water quality standards⁷." Also, the Coalition argues that the Permit improperly allows coverage to be accomplished in less than sixty days. However, this point is disputed, as the WTC and Ecology interpret the permit differently. Further, the Coalition argues that "the noncompliance notification provisions of the Aquatic Plant permit are inconsistent with federal delegation requirements because they are not as stringent as the federal standards.⁸" Ecology challenges this point, asserting that the permit has more stringent notification requirements for violations than those provided by the federal provisions.

Recommendation for SPOCA:

Based upon the evidence provided in the hearing, it is recommended that SPOCA support the permit issued by the Department of Ecology. While the WTC's concerns about the safety of the pesticides are legitimate, Ecology appears to have performed detailed assessments concerning the possible risks presented by the pesticides that would be used. Further, the safety and recreational hazards that are posed by the invasive weeds seem too weighty to ignore and must be addressed with some promptness.

In addition to SPOCA's support of the current permit, certain questions may still be considered to more clearly define the SPOCA standpoint:

- Should there be more education available to the public and property owners concerning the effects and possible uses of pesticides?
- Should there be an added clause on the permit that requires renewal before five years to ensure that the Department of Ecology has adequate control over pesticide applications?
- Should permit holders be responsible for showing they have considered non-chemical methods of algae control?

⁶ *ibid.*

⁷ State of Washington, Environmental hearings office notes from June 6, 2006 with Phyllis K. Macleod administrative appeals judge presiding. Page 11.

⁸ State of Washington, Environmental hearings office notes from June 6, 2006 with Phyllis K. Macleod administrative appeals judge presiding. Page 11.

Response to Issues Raised at 4-10-08 Planning Commission Meeting City of Kirkland Shoreline Master Program Update

Background

The City of Kirkland adopted Resolution 4510 on June 21, 2005, which ratifies the *Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan* (WRIA 8 Steering Committee 2005). Ratification expressed the City's "approval and support" for eight actions. Of particular relevance are actions 3 and 6 as follows:

3. Using the scientific foundation and the conservation strategy as the basis for local actions recommended in the plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities.
6. Using the start-list to guide priorities for regional funding in the first ten years of Plan implementation, and implementing start-list actions through local capital improvement projects, ordinances, and other activities...

One of the priorities established in the Plan for the area of Lake Washington that includes Kirkland is to:

Reduce predation to outmigrating juvenile Chinook by: reducing bank hardening, restoring overhanging riparian vegetation, replacing bulkheads and rip-rap with sandy beaches with gentle slopes, and use of mesh dock surfaces and/or community docks. http://dnr.metrokc.gov/wrias/8/chinook-plan/volumeII/03_Chapter_11_North_Lk_WA_Actions.pdf pg. 9-10)

Beneath that priority are listed a number of implementing land use actions, of which the following is a subset:

- Recognize that softening or removal of bulkheads is the most important action to improve shoreline habitat. In addition, riparian/shoreline buffers should be increased to the extent practicable

- Discourage construction of new bulkheads. Develop guidelines to better assess need for bulkheads and restrict height to that necessary to protect the structure; height increases would be allowable only after appropriate analysis based on fetch, waves, wind velocity and direction, etc. Guidelines should take into account tradeoffs with other environmental impacts (e.g., presence of contaminated soils) and public safety hazards.

Issue 1

Is bioengineered shoreline stabilization and restoration a viable option on east-side lakeshores, even in high wave fetch environments?

Response 1

The Watershed Company and other consulting firms have designed numerous shoreline restoration projects that have been built in a variety of locales around Lake Washington, including Hunts Point, Medina, Mercer Island, Seattle, Bellevue, Renton, Kirkland's Potential Annexation Area, and other east-side jurisdictions.

“Restoration,” for our purposes, does not mean a return of the site to any historical standard, whether that is pre-European settlement or pre-lake elevation control by the U.S. Army Corps of Engineers. Restoration means a project has resulted in an improvement in ecological functions relative to the baseline condition.¹ That baseline condition has been established by the 2006 Shoreline Inventory/Analysis Report. The level of improvement required of a property owner will be dependent on a number of variables, including site-specific conditions and the nature and magnitude of a proposed development or use.

All shoreline restoration designs are very site-specific, but virtually all sites have some potential for restoration on the broad continuum. Any site's position on the restoration continuum is determined by a number of variables, including:

- 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, and
- location of residence, utilities, or other built structures relative to the shoreline edge.

At one end of the continuum are properties for which bulkhead removal and full shoreline restoration is possible, and at the other end of the spectrum are properties which may only be able to plant a narrow band of native vegetation upland of the bulkhead. Properties in the latter

¹ Chapter 173-26-020(27) WAC. “Restore”, “Restoration” or “ecological restoration” means the reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to re-vegetation, 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.

category are those that have deep water at the bulkhead and utilities or structures close to the water's edge.

For most other properties, some bulkhead removal or modification is possible provided that care is taken to size substrates appropriately so they are not easily mobilized by wind- or boat-driven waves, to place sufficient quantities of substrate or otherwise grade the site to achieve a stable slope, and to strategically place as needed boulders or logs to attenuate wave energy and improve habitat.

Examples of constructed projects in high-energy and other environments are attached. The City of Kirkland also contains several parks with sections of "natural" (unarmored) shoreline that are stable, including Heritage Park, Kiwanis Park, Houghton Beach Park, and Waverly Beach Park.

Further, the U.S. Army Corps of Engineers has recently issued its *Programmatic Biological Evaluation for Shoreline Protection Alternatives in Lake Washington*, which includes three shoreline protection options for different settings that would receive streamlined federal permitting. The illustrations and description of each of the three options are attached.

Issue 2

Does riparian vegetation on the east shore of Lake Washington provide value even though it is not positioned to provide shade?

Response 2

Shoreline vegetation, particularly trees with overhanging canopies, can provide nearshore shade in the morning hours when the sun is in the east. The ability of east-side shoreline vegetation to provide shade in the afternoon hours depends on the character of the vegetation and its proximity to the water's edge. Either way, provision of shade is just one of many benefits of native riparian vegetation.

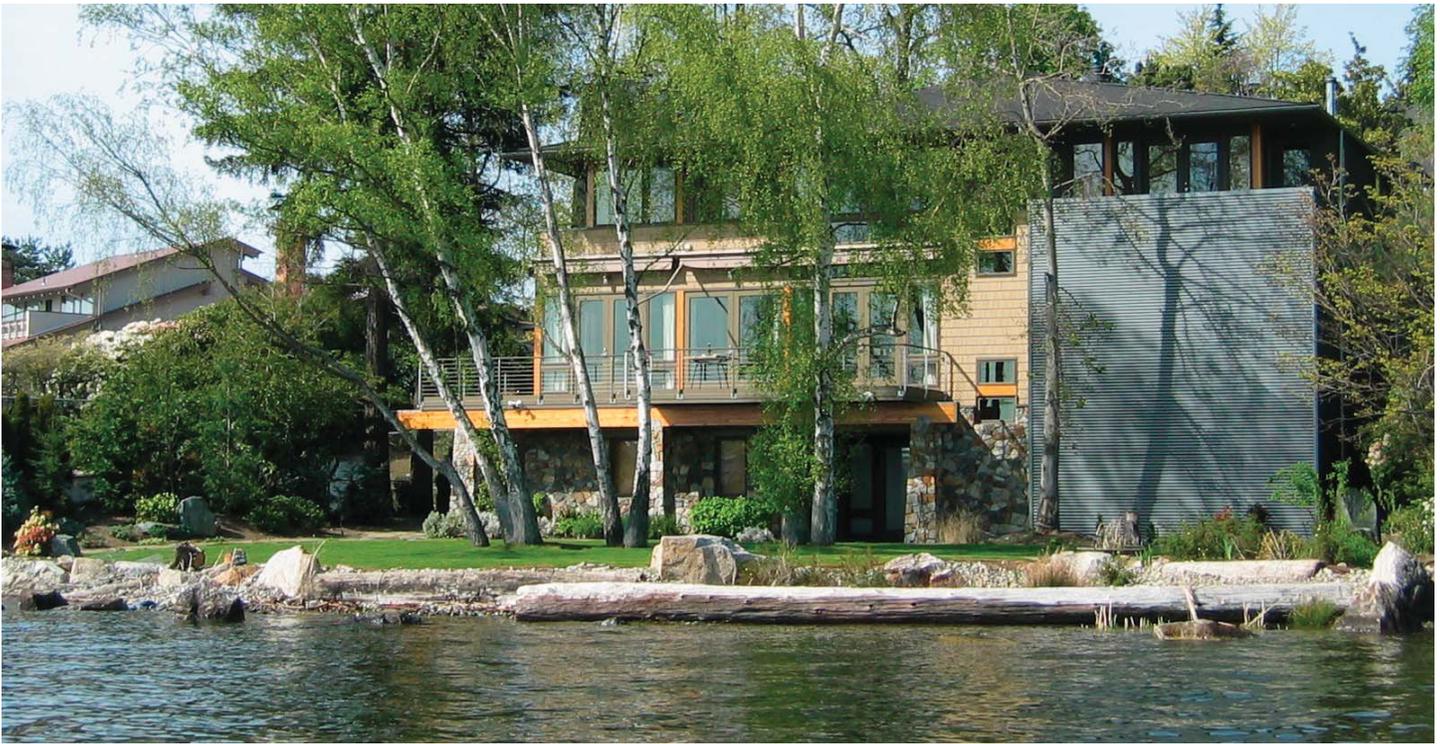
Similar to vegetated buffers on streams, riparian vegetation can provide the following benefits to lakes and lake-associated wildlife:

- Water Quality (sediment and pollution removal)
- Bank Stabilization (erosion control)
- Shade and temperature moderation
- Microclimate
- Wildlife habitat
- In-lake habitat (woody debris. However, this is typically removed by property owners in urban Lake Washington)
- Productivity (insects, smaller organic debris – even when vegetation is not overhanging the water, these items enter the water via winds or surface water runoff)

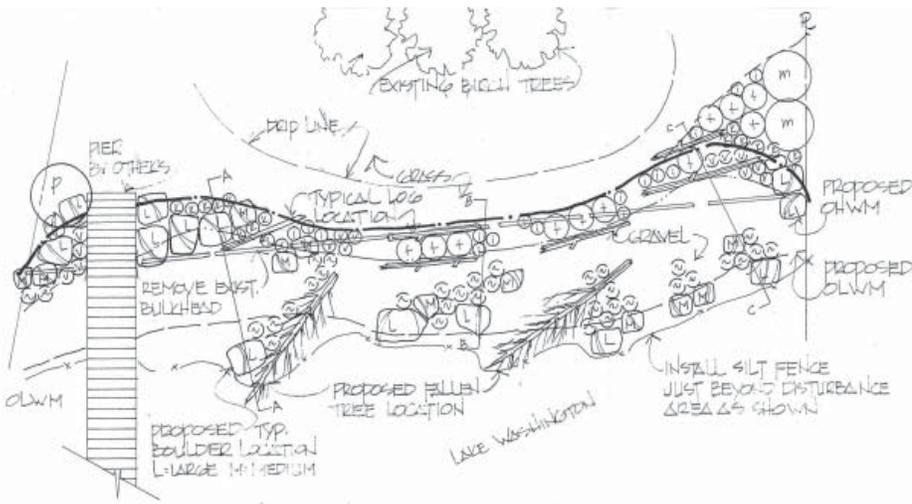
A few key excerpts from the *Programmatic Biological Evaluation for Shoreline Protection Alternatives in Lake Washington* regarding the importance of riparian vegetation to listed fish species follow:

- “Christensen (1996) showed that riparian vegetation and woody debris contribute to organic detritus in lakes that support epibenthic invertebrates such as dipteran larvae”
- “Increasing the amount of woody debris and overhanging vegetation could provide cover from bird predation.”
- “Tabor and Piaskowski (2002) also found that juvenile Chinook use woody debris and overhanging vegetation as refuge from predators during the day. Their study results suggest the need to have a diverse shoreline with open areas as well as areas with woody debris and overhanging vegetation (Tabor and Piaskowski 2002). Later studies showed that most (over 80%) juvenile Chinook salmon are found at sites with overhanging vegetation and small woody debris as compared to sites without vegetation and small wood (Tabor et al. 2004a).”

SEATTLE RESIDENCE- COMPLETED 2002



Spring 2005



Original Plan



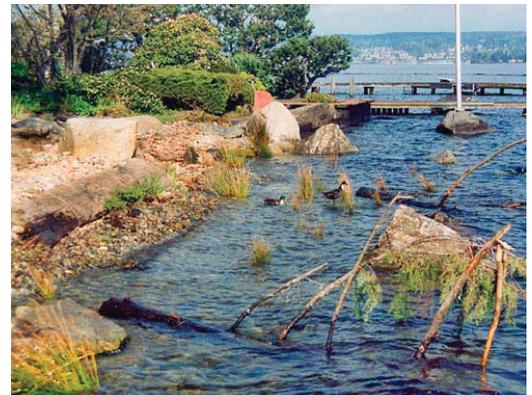
Before

SERVICES ON THIS PROJECT

- Shoreline Design & Permitting
- Site Planning
- Bulkhead Removal
- Restoration Planting
- Construction Supervision



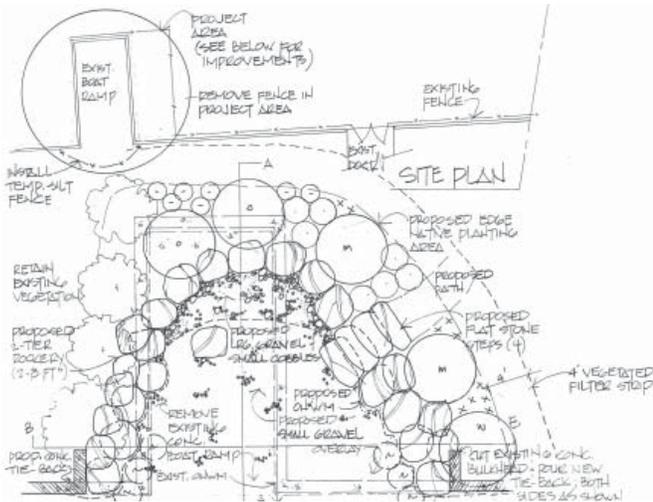
After



After



Fall 2007



Original Plan



Before

SERVICES ON THIS PROJECT

- Landscape Architecture
- Site Planning
- Bulkhead Repair
- Restoration Planting
- Construction Supervision



After

KIKRLAND RESIDENCE- COMPLETED 2006



Fall 2007



After



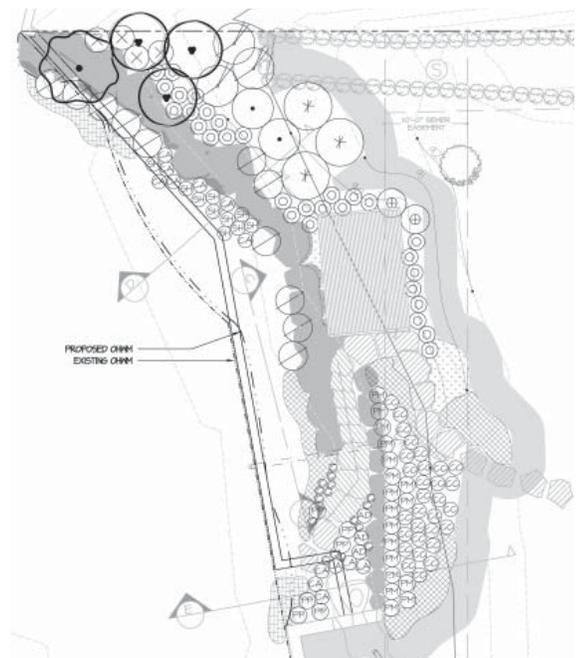
Before



Construction 2006

SERVICES ON THIS PROJECT

- Landscape Architecture
- Site Planning
- Shoreline Design & Permitting
- Bulkhead Removal
- Restoration Planting
- Construction Supervision

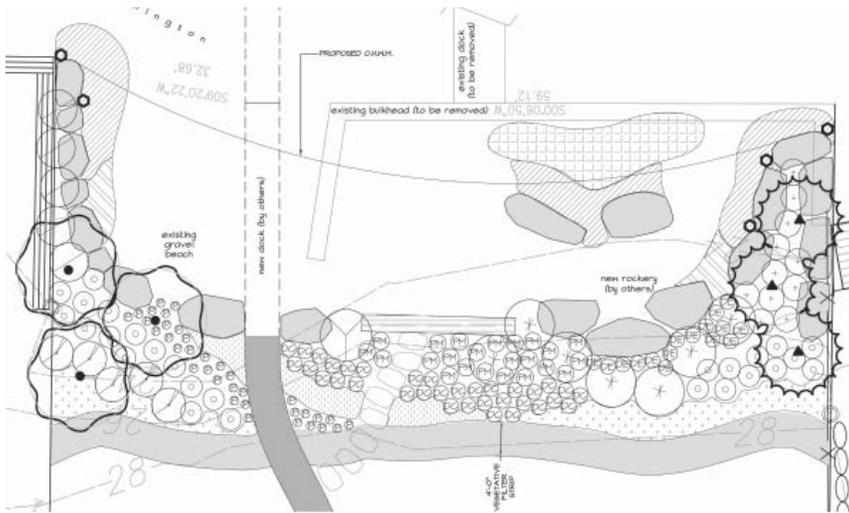


Original Plan

HUNT'S POINT RESIDENCE- COMPLETED 2006



Fall 2007



Original Plan



Before

SERVICES ON THIS PROJECT

- Landscape Architecture
- Site Planning
- Shoreline Design
- Bulkhead Removal
- Restoration Planting



Before

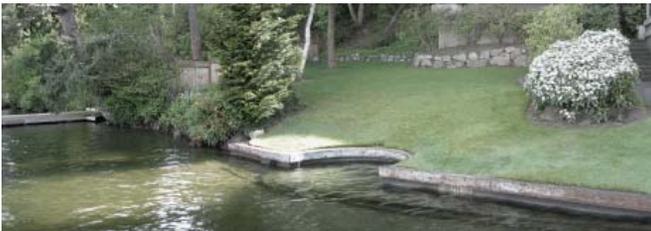


After

BELLEVUE RESIDENCE- COMPLETED 2005



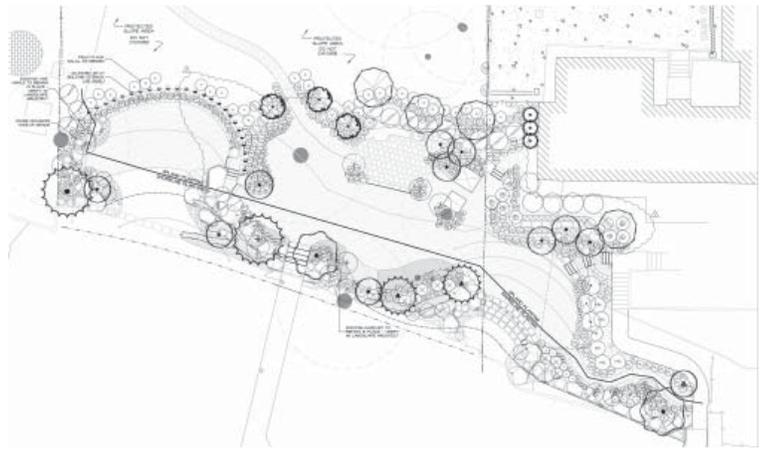
Fall 2007



Before



After



Original Plan

SERVICES ON THIS PROJECT

- Landscape Architecture
- Site Planning
- Shoreline Design & Permitting
- Bulkhead Removal
- Restoration Planting
- Construction Supervision

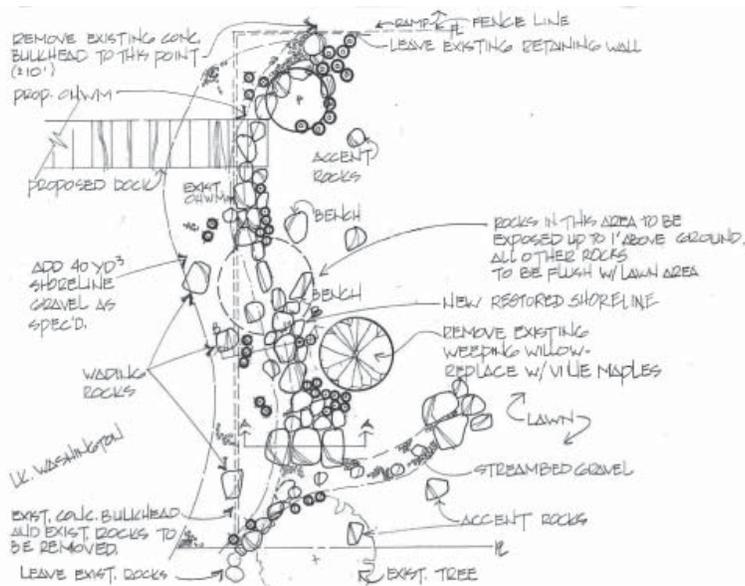


North Beach Cove

RENTON RESIDENCE- COMPLETED 2000



Fall 2007



Original Plan



Before, looking at the concrete bulkhead

SERVICES ON THIS PROJECT

- Shoreline Design & Permitting
- Site Planning
- Bulkhead Removal
- Restoration Planting
- Construction Supervision



After

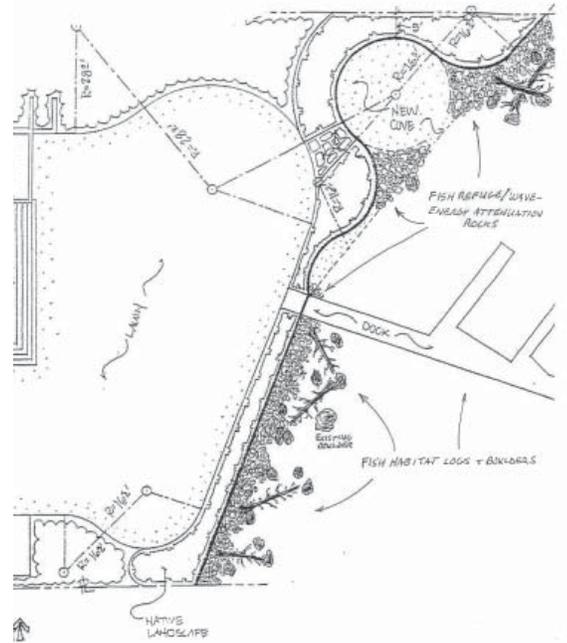
MERCER ISLAND RESIDENCE- COMPLETED 2001



Fall 2007



After



Original plan by Alchemie and Watershed

SERVICES ON THIS PROJECT

- Shoreline Design & Permitting
- Bulkhead Replacement
- Restoration Planting
- Construction Supervision



Post Construction 2001



Before

MERCER ISLAND RESIDENCE- COMPLETED 2005



Fall 2007



After



During Construction



Before

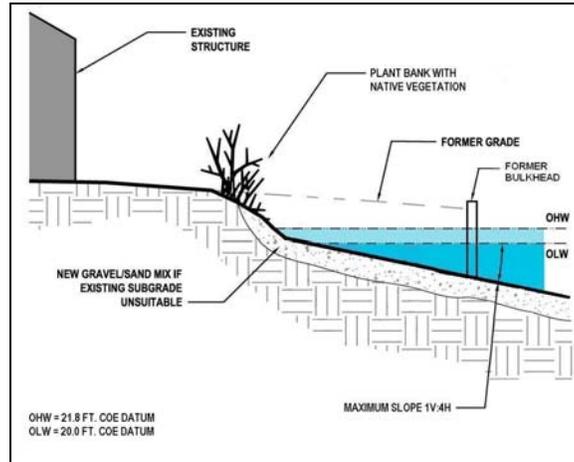
SERVICES ON THIS PROJECT

- Landscape Architecture
- Shoreline Design & Permitting
- Bulkhead Replacement
- Restoration Planting
- Construction Supervision



Construction 2005

Cut Beach, Place Gravel Fill and Re-vegetate



Remove existing rip rap or concrete bulkhead and cut into the existing bank across the maximum width of the property to attain a shallow shoreline grade and further reduce the effects of scouring wave action. Plant native riparian vegetation ten feet deep across at least 50% of the width of the shoreline. Plant emergents in areas where wave action is suitable for growth. Place gravel beach fill grading slope to range of 1 Vertical (V):4 Horizontal (H) or less steep. The design target for the slope is 1V:7H. More than 2 cubic yards of gravel fill per lineal foot at or below the 21.85 foot elevation will need additional review and consent by COE. Typically, gravel size should range from 1/8 inch to 2 inches. Add emergent plants in areas where wave action is suitable for growth. For higher energy areas shoreline logs may be partially buried within the new substrate at the water's edge. The area behind the logs will be planted with willows and/or emergent vegetation. Section F gives the COE web site for work windows at various locations around the lake. Best management practices including installation of silt fences for water quality control must be used. This method may be most appropriate for shallow-sloped shorelines with lawns. Site specific engineering may be needed depending on location and scale of project.

Below is an example of a residential shoreline on Lake Washington that formerly had a bulkhead at the water line across the front of the property. The owners removed the bulkhead, cut back the grass and built a gradual-sloped beach with small sized substrate placed several feet above the 21.85 foot elevation (ordinary high water (OHW)) to absorb wave action. The beach extends across the width of the property and includes emergent and riparian shoreline vegetation.



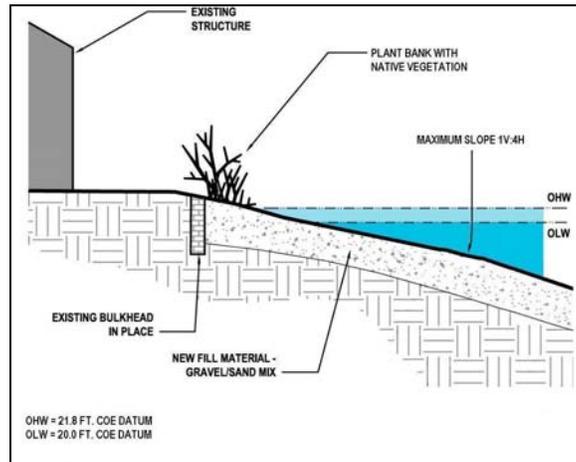
Shallow-sloped upland site on Lake Washington

Below is an example of a residential shoreline on Lake Washington that formerly had a bulkhead lower than 21.85 feet elevation (OHW) across the front of the property. The owners removed the bulkhead, cut back the grass and built a gradual-sloped beach with small sized substrate that extends above the 21.85 foot elevation (OHW) several feet to absorb wave action. The beach extends across the width of the property. The rockery functions as a retaining wall to allow a shallow-sloped beach at a steep-sloped site.



Steeper-sloped upland site on Lake Washington

Gravel Fill Beach and Re-vegetate



Where option #1 cannot be done, because of site conditions, place gravel beach fill in front of existing bulkhead (covering the rip rap) or remove rip rap across the maximum width of the property and replace with gravel beach fill. Plant native riparian vegetation ten feet deep across more than 50% of the width of the shoreline. Place gravel beach fill grading slope to range of 1V:4H or flatter. Design target for the slope is 1V:7H. Typically gravel size should range from 1/8 inch to 2 inches. More than 2 cubic yards of gravel fill per lineal foot at or below the 21.85 foot elevation will need additional review by COE. Add emergent plants in areas where wave action is suitable for growth. For higher energy areas shoreline logs may be partially buried within the new substrate at the water's edge. The area behind the logs will be planted with willows and/or emergent vegetation. Section F gives the COE web site for work windows at various locations around the lake. Best management practices including installation of silt fences for water quality control must be used. This method may be suited for those properties with a structure close to the shoreline and/or on a steep-sloped shoreline. Site specific engineering may be needed depending on location and scale of project.

A site where this technique has been used is the former seawall at Lincoln Park in west Seattle. Gravel fill was placed seaward of the wall to form a beach and protect a sewer main during the 1980s. Minimal gravel replenishment has been necessary over the past twenty years. See Appendix 1 for more details.

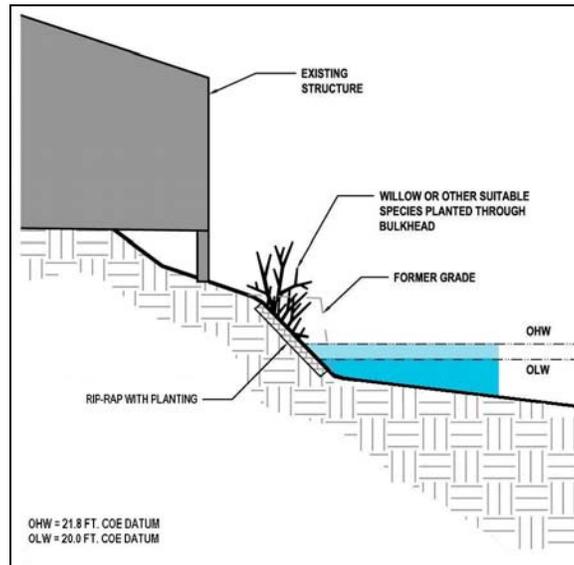


Photo courtesy of COE
Lincoln Park before construction



Photo courtesy of COE
Lincoln Park after construction

Re-vegetated Armored Banks (only for bulkheads within 25 feet of residence)



Where existing rip rap cannot be removed because of very close proximity to an existing residential or commercial structure (25 feet or less from 21.85 foot elevation), vegetation can be added to restore some functions. Willow stakes must be planted into replacement rip rap (or other material) with soil amendment or provide design with similar functional vegetation benefit in front of bulkhead. Gravel beach fill may be added in front of the bulkhead to provide some shallow water. More than 2 cubic yards of gravel fill per lineal foot at or below the 21.85 foot elevation will need additional review by COE. Section F gives the COE web site for work windows at various locations around the lake. Overhanging riparian plantings must be added along the entire length of the rip rap bulkhead. Best management practices including installation of silt fences for water quality control must be used. Limited use of this shoreline treatment may only be allowed by COE depending on site specific constraints making alternatives #1 or #2 impossible.

LAND USE, PLANNING, AND INFRASTRUCTURE ACTIONS FOR NORTHERN LAKE WASHINGTON (Migratory Tier 1)	
<p>POLICY/INSTITUTIONAL CONTEXT:</p> <p>Jurisdictions: Seattle, Lake Forest Park, Kenmore, Kirkland, King County</p> <p>Growth pressures (inside UGA): Seattle, Lake Forest Park, Kenmore, Kirkland Planned Annexation Area (PAA in King Co.), Kirkland</p> <p>Percent of basin inside UGA: 100%</p> <p>Program/mitigation opportunities:</p>	<p>SCIENCE CONTEXT:</p> <p>Watershed evaluation rating:</p> <ul style="list-style-type: none"> • <i>West Lake Wash.</i> Subarea: Tier 1 – Migratory area; Lower watershed function • <i>East Lake Wash.</i> Subarea: Tier 1 – Migratory area; Lower watershed function <p>Watershed evaluation summary: Not applicable</p>

**LAND USE ACTIONS FOR NORTH LAKE WASHINGTON
MIGRATORY AREA BASED ON TECHNICAL RECOMMENDATIONS
IN WRIA 8 CONSERVATION STRATEGY**

Notes:

- 1) Technical priorities from the WRIA 8 Conservation Strategy are listed in bold; recommended land use actions are listed for each technical area. Most technical recommendations are interrelated; many land use actions address multiple technical priorities.
- 2) Note that local jurisdictions in these subareas are doing or planning to do many of these actions.
- 3) See also Appendix D for a menu of land use actions described by criteria, and references on low impact development, critical areas and other land use topics.

Reduce predation to outmigrating juvenile Chinook by: reducing bank hardening, restoring overhanging riparian vegetation, replacing bulkheads and rip-rap with sandy beaches with gentle slopes, and use of mesh dock surfaces and/or community docks.

- N49 Use WRIA 8 Conservation Strategy as one of the "best available science" resources during current critical areas ordinance (CAO) revisions and Shoreline Master Program (SMP) revisions. Recognize that softening or removal of bulkheads is the most important action to improve shoreline habitat. In addition, riparian/shoreline buffers should be increased to the extent practicable.
- N50 This area is mostly developed, with little undisturbed landscape left to protect, and much of the shoreline is privately owned. Many structures in the lake shore area are nonconforming with development and environmental regulations; the degree of nonconformity will become even greater as buffers and other shoreline protections become more restrictive. In order to decrease the level of nonconformity over the long term (50-100 years), jurisdictions should encourage or require that development come into conformity, depending on the degree of redevelopment. A sliding scale could be applied, where the greater the degree of redevelopment, the greater the expectation that the development come into compliance.
- N51 Discourage construction of new bulkheads. Develop guidelines to better assess need for bulkheads and restrict height to that necessary to protect the structure; height increases would be allowable only after appropriate analysis based on fetch, waves, wind velocity and direction, etc. Guidelines should take into account tradeoffs with other environmental impacts (e.g., presence of contaminated soils) and public safety hazards.
- N52 Encourage salmon friendly shoreline design during new construction and redevelopment of shoreline properties, and properties that border tributaries, by offering regulatory flexibility. However, analysis of these tradeoffs – including upland land use impacts to the lake - would be necessary to insure a net benefit to salmon. Examples of regulatory flexibility include:

Chapter 11: Comprehensive Action-List for North Lake Washington Tributaries

- ✓ Reductions in building setbacks, modest increases in lot coverage or impervious area (or increased density for multi-family) could be allowed if applicant removes, sets back or softens bulkhead and restores shoreline "vegetative management area" (riparian/lakeshore buffer).
 - ✓ Reduce prescriptive buffer widths if buffers are planted with appropriate native vegetation and a science-based evaluation determines that no negative impact results.
 - ✓ Allow or encourage variances from front yard setbacks to avoid allowing variances from back yard setbacks and/or riparian buffers that would cause development to encroach further toward the lake.
- N53 Offer incentives to shoreline property owners to voluntarily remove bulkheads, revegetate shoreline, improve habitat at creek mouths, change dock design. Incentives include:
- ✓ Provide expertise (e.g., provide templates for shoreline planting plan, bulkhead design)
 - ✓ Expedite permit process at local, state and federal levels (e.g., allow more restoration activities as shoreline exemptions to make permitting faster and less costly)
 - ✓ Provide and streamline applications for tax breaks through programs such as Public Benefit Rating System (PBRs) if landowner commits to stewardship activities (above and beyond regulatory protection requirements) through permit process. PBRs would likely provide most benefit to/be most appropriate for larger, suburban lots within urban areas.
 - ✓ Provide incentives for establishment of community docks or mooring buoys, rather than individual lot docks.
- N54 Address disincentive in Shoreline Management Act that can discourage shoreline restoration because ordinary high water mark (OHWM) can be moved landward as a result of removal of a bulkhead, resulting in additional use restrictions placed on adjacent or applicant's property. Local jurisdictions have some ability to limit impact of setback from OHWM, but cannot move the 200-foot shoreline jurisdiction. May require change at state level.
- N55 Support joint effort by NOAA Fisheries, WDFW, USACOE, USFWS to develop specifications for new and expanded piers. Goal of this effort is for streamlined federal/state permitting for piers that meet these specifications (affects Corps Section 404, Section 401 water quality certification, HPA). COE is developing Regional General Permit for new and expanded overwater structures in Lake Washington. NOAA Fisheries hopes to work with local jurisdictions to adopt similar permit requirements at local level; they will meet with lakeshore jurisdictions throughout spring '04.
- N56 Support development of federal/state/local specifications and streamlined permitting for salmon friendly bulkheads.
- N57 Explore need for regulation and/or education related to impacts of power boat speed near shorelines on bulkheads, shoreline vegetation. Power boats are getting bigger; determine if there is a need to set guidance for boat speed within a certain distance of shoreline, depending on the location in the lake.
- N58 Research pros and cons of allowing fill at edge of lake, as a way of providing a vegetated buffer. This could balance desire by property owners to maintain usable yard area and need to increase shoreline buffer for salmon habitat. Look into scientific validity and legal/institutional issues. Will need to evaluate such projects on a site-by-site basis.
- N59 Offer landscape, bulkhead, or dock contractor training and certification programs.
- N60 Support education and demonstration programs so that shoreline property owners can see examples of how salmon friendly bulkheads, docks, etc. actually work, and will therefore better understand and accept regulations/incentives about these docks and bulkheads.
- N61 Local jurisdictions should share information among themselves about ordinance language, templates and specifications.
- N62 Jurisdictions should continue to apply shoreline restoration, appropriate use of pesticides, native landscaping, etc. in parks, street ends, and other publicly owned property.

Protect and restore water quality in tributaries and along shoreline. Restore coho runs in smaller tributaries as control mechanism to reduce the cutthroat population.

Reconnect and enhance small creek mouths as juvenile rearing areas.

- N63 Protect and restore water quality and other ecological functions in tributaries to reduce effects of urbanization and reduce conditions which encourage cutthroat. Protect and restore forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs, incentives, and flexible development tools.

Chapter 11: Comprehensive Action-List for North Lake Washington Tributaries

- N64 Address stormwater impacts from residential, commercial, industrial uses, through NPDES permit updates, consistent with Dept. of Ecology's 2001 Stormwater Management Manual (or beyond, e.g. to Tri-County guidance - see Appendix D). General stormwater recommendations include:
- ✓ Promote low impact/sustainable development along shoreline and throughout sub-areas through regulations, education, and incentives (e.g., develop guidelines, offer simpler permit review, reduce requirements for capital projects).
 - ✓ Adopt policies on pesticide use consistent with the January 2004 federal ruling banning certain pesticide use along salmon-bearing streams in the northwest. Application of pesticides should be in accordance with source control best management practices (BMPs) in Ecology's 2001 Stormwater Management Manual.
 - ✓ Address high stormwater runoff in urban creeks (which drain into Lake Washington), through low impact development, on-site stormwater detention for new and redeveloped projects.
 - ✓ Address point sources that discharge directly into the lake.
 - ✓ Address stormwater impacts from major transportation projects (for new and expanded roadways proposed during the next ten years). Address stormwater impacts from State Route 520 Bridge.
- N65 Address water quality associated with marinas; note that marinas are regulated directly by Dept. of Ecology.
- N66 Reevaluate government policies toward aquatic weed control to minimize impacts to salmon habitat; coordinate with relevant agencies.

RESOLUTION NO. R-4510

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF KIRKLAND RATIFYING
THE WATER RESOURCE INVENTORY AREA (WRIA) 8 CHINOOK SALMON
CONSERVATION PLAN

WHEREAS, in March 1999, the National Oceanic and Atmospheric Administration (NOAA) Fisheries listed the Puget Sound Chinook salmon evolutionary significant unit as a threatened species under the Endangered Species Act (ESA); and

WHEREAS, in November 1999, the United States Fish and Wildlife Service (USFWS) listed the Puget Sound bull trout distinct population segment as a threatened species under the ESA; and

WHEREAS, under the ESA, it is illegal to take a listed species, and the ESA defines the term "take" to include actions that could harm listed species or their habitat; and

WHEREAS, actions that are directly or indirectly authorized by local governments could potentially expose local governments to civil or criminal penalties under the ESA; and

WHEREAS, under the ESA, Section 4(f), NOAA Fisheries (for Chinook salmon) and USFWS (for bull trout) are required to develop and implement recovery plans to address the recovery of the species; and

WHEREAS, an essential ingredient for the development and implementation of an effective recovery program is coordination and cooperation among federal, state, and local agencies, tribes, businesses, researchers, non-governmental organizations, landowners, citizens, and other stakeholders as required; and

WHEREAS, Shared Strategy for Puget Sound, a regional non-profit organization, has assumed a lead role in the Puget Sound response to developing a recovery plan for submittal to NOAA Fisheries and the USFWS; and

WHEREAS, Shared Strategy intends that its recovery plan will include commitments from participating jurisdictions and stakeholders; and

WHEREAS, local jurisdictions have authority over some habitat-based aspects of Chinook survival through land use and other policies and programs; and the state and tribes, who are the legal co-managers of the fishery resource, are responsible for addressing harvest and hatchery management in WRIA 8; and

WHEREAS, in WRIA 8, habitat actions to significantly increase Chinook productivity trends are necessary, in conjunction with other recovery efforts, to

avoid extinction in the near term and restore WRIA 8 Chinook to viability in the long term; and

WHEREAS, the City values ecosystem health; water quality improvement; flood hazard reduction; open space protection; and maintaining a legacy for future generations, including commercial, tribal, and sport fishing, quality of life, and cultural heritage; and

WHEREAS, the City supports cooperation at the WRIA level to set common priorities for actions among partners, efficient use of resources and investments, and distribution of responsibility for actions and expenditures;

WHEREAS, 27 local governments in WRIA 8 jointly funded development of *The WRIA 8 Steering Committee Proposed Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan* (the Plan), published February 25, 2005, following public input and review; and

WHEREAS, while the Plan recognizes that salmon recovery is a long-term effort, it focuses on the next ten years and includes a scientific framework, a start-list of priority actions and comprehensive action lists, an adaptive management approach, and a funding strategy; and

WHEREAS, the City has consistently implemented habitat restoration and protection projects, and addressed salmon habitat through its land use and public outreach policies and programs over the past five years; and

WHEREAS, it is important to provide jurisdictions, the private sector and the public with certainty and predictability regarding the course of salmon recovery actions that the region will be taking in the Lake Washington/Cedar/Sammamish Watershed, including the Puget Sound nearshore; and

WHEREAS, if insufficient action is taken at the local and regional level, it is possible that the federal government could list Puget Sound Chinook salmon as an endangered species, thereby decreasing local flexibility.

BE IT RESOLVED by the City Council of the City of Kirkland as follows:

Section A: The City hereby ratifies *The WRIA 8 Steering Committee Proposed Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan*, dated February 25, 2005 (the Plan). Ratification is intended to convey the City's approval and support for the following:

The following goals for the Plan:

- a) The Plan mission statement to conserve and recover Chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring habitat with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning Chinook salmon.

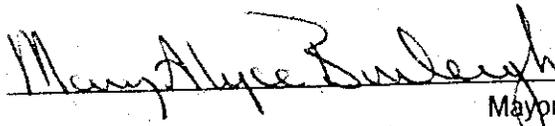
- b) The multiple benefits to people and fish of Plan implementation including water quality improvement; flood hazard reduction; open space protection; and maintaining a legacy for future generations, including commercial, tribal and sport fishing, quality of life, and cultural heritage.
2. Continuing to work collaboratively with other jurisdictions and stakeholders in the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) to implement the Plan.
 3. Using the scientific foundation and the conservation strategy as the basis for local actions recommended in the plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities.
 4. Adopting an adaptive management approach to Plan implementation and funding to address uncertainties and ensure cost-effectiveness by tracking actions, assessing action effectiveness, learning from results of actions, reviewing assumptions and strategies, making corrections where needed, and communicating progress. Developing and implementing a cost-effective regional monitoring program as part of the adaptive management approach.
 5. Using the comprehensive list of actions, and other actions consistent with the Plan, as a source of potential site specific projects and land use and public outreach recommendations. Jurisdictions, agencies, and stakeholders can implement these actions at any time.
 6. Using the start-list to guide priorities for regional funding in the first ten years of Plan implementation, and implementing start-list actions through local capital improvement projects, ordinances, and other activities. The start-list will be revised over time, as new opportunities arise and as more is learned through adaptive management.
 7. Using an adaptive approach to funding the Plan through both local sources and by working together (within WRIA 8 and Puget Sound) to seek federal, state, grant, and other funding opportunities. The long-term ultimate goal is to fund the Plan through a variety of sources at the current 2004 level plus 50 percent, recognizing that this resolution cannot obligate future councils to financial commitment and that the funding assumptions, strategies, and options will be revisited periodically.
 8. Forwarding the Plan to appropriate federal and state agencies through Shared Strategy for Puget Sound, to be included in the Puget Sound Chinook salmon recovery plan.

Section B: The City recognizes that negotiation of commitments and assurances/conditions with appropriate federal and state agencies will be an iterative process. Full implementation of this Plan is dependent on the following:

1. NOAA Fisheries will adopt the Plan, as an operative element of its ESA Section 4(f) recovery plan for Puget Sound Chinook salmon.
2. NOAA Fisheries and USFWS will:
 - a) take no direct enforcement actions against the City under the ESA for implementation of actions recommended in or consistent with the Plan,
 - b) endorse the Plan and its actions, and defend the City against legal challenges by third parties, and
 - c) reduce the regulatory burden for City activities recommended in or consistent with the Plan that require an ESA Section 7 consultation.
3. Federal and state governments will:
 - a) provide funding and other monetary incentives to support Plan actions and monitoring activities,
 - b) streamline permitting for projects implemented primarily to restore salmonid habitat or where the actions are mitigation that further Plan implementation,
 - c) offer programmatic permitting for local jurisdiction actions that are consistent with the Plan,
 - d) accept the science that is the foundation of the Plan and support the monitoring and evaluation framework,
 - e) incorporate actions and guidance from the Plan in future federal and state transportation and infrastructure planning and improvement projects, and
 - f) direct mitigation resources toward Plan priorities.

Section C: This resolution does not obligate the City Council to future appropriations beyond current authority.

Passed by majority vote of the Kirkland City Council in open meeting
this 21st day of June, 2005.


Mayor

ATTEST:


Acting City Clerk

Richard K. Sandaas
12454 Holmes Point Drive
Kirkland, WA 98034
425 823 2145
eride@msn.com

May 8, 2008

Ms Stacy Clauson, Senior Planner
Planning and Community Development Department

Planning Commission
City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033

Reference: Kirkland's Shoreline Master Program Update

In this letter I am providing comments to the materials prepared for the May 8, 2008 Kirkland Planning Commission meeting. I have provided comments previously on the Draft Inventory, and on the draft policies on March 24 and April 20, 2008.

Concerns still remain in the areas of feasibility, practicality, and acceptability of certain policies and goals. In this letter I am commenting on bulkhead removal and restoration, shoreline vegetation and shading, invasive weed control, and public process.

Bulkhead removal.

The momentum for removal of bulkheads and planting of extensive shoreline vegetation is such that it is difficult to raise issues of feasibility, practicality, and acceptability. But I will try.

Your consultant has prepared a response to whether bioengineered shoreline stabilization and restoration is a viable option on east-side lakeshores, even in a high wave fetch environment. They contend it is possible and have provided examples of projects in Attachment 16, Enclosure 1, in what they describe as high-energy environments. But they are not.

Furthermore these examples are not relevant to Kirkland's shoreline. They are not in the high energy environment of Kirkland's shoreline, they do not have the exposure to extensive wave action and they are on large, deep lots. The photos show mega-homes on large, deep lots with extensive setbacks. No residential lots with these configurations exist south of Kiwanis Park and perhaps only a few lie to the north.

Thank you once again, for the opportunity to comment on the policies.
Please let me know if you have any questions or need additional
information.

Very truly yours,

Richard K. Sandaas
Chair, SPOCA
PAA shoreline property owner

Stacy Clauson

From: Daved [Daved@waterfrontconstruction.com]
Sent: Friday, May 02, 2008 8:48 AM
To: Cbeam@redmond.gov; Stacy Clauson; EConkling@ci.renton.wa.us; jding@ci.kenmore.wa.us; Margaret.glowacki@seattle.gov; Mona Green; rgrumbach@medina-wa.gov; MPaine@bellevuewa.gov; Harry.reinert@kingcounty.gov; peterr@ci.issaquah.wa.us; Matt.torpey@mercergov.org; mvannostrand@ci.sammamish.wa.us; Michelle Whitfield
Cc: gary@tripp.net; eride@msn.com
Subject: SMP UPDATE LETTER OF CONCERN
Attachments: SMP Update Ltr.doc

Dear SMP Update Planner/Point of Contact,

I am forwarding the attached letter to you hoping that it will be closely read and given serious and objective consideration and passed on to those involved in your SMP update process. Your position and responsibility during the update process is one of influence and power that will impact thousands of our citizens, with the greatest quality of life effect on those living within 200 feet of the shorelines of our state. If you are not currently involved in updating your SMP this will happen over the next few years as funding from DOE is made available.

I did not plan on getting too deeply involved in the SMP update process until I attended a couple of meetings where the Department of Ecology presented what I believe to be misleading information for development on Lakes Washington and Sammamish and their extrapolation of the Corps RGP-3 guidelines as a means to arrive at a goal of "no net loss of ecological functions". This was not the intent of the RGP3 and can you imagine what would happen if this same standard was placed on upland development? Unfortunately for private property owners, they are an easier target for regulations and do not represent as much revenue.

The pressure being put on local governments to make these guidelines "requirements" and to treat those property owners living on Lakes Washington and Sammamish differently than anyone else in the entire state has stirred me to contact anyone willing to listen and understand this process from the position of someone who works with the waterfront property owners you serve and who are viewed more as a privileged class of private citizens rather than part of the public.

The letter is long and you are busy. Please take time to read it.

The letter is based on experience in working with the system and property owners from a "guy on the street" view. I am also requesting your consideration as a private citizen living outside your jurisdiction but concerned for those living within your boundaries. We can agree to disagree with some of the information in the letter but I have tried to be as accurate as possible in my representation of the information.

Attendance at SMP Update, Council and Planning Commission meetings has been dismal and you are not required to track numbers so the process can go through with a very small percentage of your residents, especially waterfront owners, understanding what is happening. This should be a concern.

Due to a wide range of responsibilities many planners and most council and commission members are unfamiliar with local, state and federal permitting requirements for shoreline development and therefore more vulnerable to accepting information from DOE and other agencies as reliable rather than questioning it. This will lead to wrong decisions unknowingly being made for those living in shoreline areas.

A separate process for redevelopment of existing structures must be adopted which allows those property owners making improvements without complying with “development standards” to be credited and respected for their efforts. This is vital if you are to experience a positive change along your shorelines. Some improvement is better than no improvement.

A separate process for piers that do not align with the “development standards” will meet the goal of “No net loss of ecological functions” defined in a DOE June 2004 publication entitled, “What Does No Net Loss Mean in the 2003 SMA Guidelines? This document 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”.”

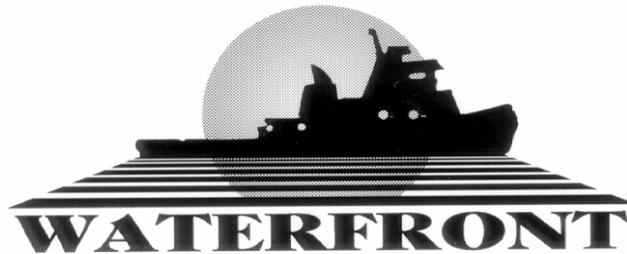
The Corps RGP-3 Guidelines are not requirements. I cannot recall a single project of the hundreds we have had permitted since the RGP3 was introduced that met all of these guidelines. That is why they are flexible and there is an alternate and more widely used permit process called the Letter of Permission (LOP).

Once your SMP update is drafted, reviewed and approved it essentially becomes law and you will either retain your autonomy and oversight of your own shorelines or hand it over to the state to manage on your behalf. There is no turning back and those citizens impacted will place the sole responsibility, whether good or bad, at your feet. They will not knock on DOE’s door.

A lot of time and effort has gone into researching this issue and preparing the letter on behalf of our shared constituents. Thank you for taking time to review the information. I will continue to attend SMP update, council and planning commission meetings to the greatest extent possible. We are also available to meet with you on environmentally responsible design and construction techniques used by our company.

If you have any questions or comments please contact me. I really appreciate your service to your community and trust the decisions you make will benefit each citizen directly touched by this process.

Respectfully,
Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.



May 1, 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). I believe there is a recent study completed by NMFS directly relating to shading from piers. 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. 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 requirements the more traditional Letter of Permission (LOP) process is still available but takes much 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 WDFW, 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.

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.

Shoreline Master Program Update Open House Goals & Objectives

Objectives

- *Educate/Inform*
 - Shoreline residents
 - Kirkland community
 - Workshop participants
 - Interested agencies
 - Educate about the update requirement
 - Inform about the public involvement to-date
 - Report on the status of the update
 - Inform about next steps
- *Receive feedback/consult*
 - Open House event will help receive feedback from participants about
 - How can the City of Kirkland meet the State's requirements for the update
 - Explore with participants what their vision of Kirkland's shorelines
 - What are the priorities for public access/recreation, environmental protection and land uses
- *Identify future focus group participants*
 - To explore pier standards, shoreline vegetation and shoreline stabilization

Open House Format

- Community Open House, Monday, June 9, 2008, 6:30-8:30, Heritage Hall, 203 Market Street
- Informational display boards/Q&A with staff + facilitated discussion (6:30-7:30 p.m.)
 - Display Boards
 - Shoreline Public Access
 - Shoreline Functions & Restoration Opportunities
 - Shoreline Armoring
 - Overwater Coverage
- Facilitated discussion led by Marie Stake, Communications Program Manager (7:30-8:30 p.m.)
 - Visioning exercise with all participants to identify
 - the most desirable functions of Kirkland's shorelines ("What do I care about the most?")
 - the future vision of Kirkland's shoreline ("What will the shoreline look like in 25 years?")
 - the opportunities for success ("What am I willing to do to contribute?")



Kirkland Shorelines

What is important to you about Kirkland's Waterfront?

Public Access & Recreation | Environment | Land Use

Share your thoughts and vision.

City of Kirkland Shoreline Master Program Update

Community Open House

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

Heritage Hall, 203 Market Street

For more information: 425-587-3248 or sclauson@ci.kirkland.wa.us

www.ci.kirkland.wa.us (Search Shoreline)

If you are unable to attend, please visit the website and submit comments via the on-line comment form, mail, e-mail or fax.

*What is important to you about
Kirkland's Waterfront?*

*Share your thoughts and vision.
Community Open House
June 9, 6:30 to 8:30 p.m.
Heritage Hall, 203 Market Street*

A paper copy of attachment 21 is available for review in Planning Department as part of file number ZON06-00017.