



MEMORANDUM

To: Planning Commission

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Date: December 30, 2008

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

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I. RECOMMENDATION

- Continue discussion from December 11, 2008 meeting on **shoreline setbacks for the Residential L shoreline environment** (see Section III starting on page 3), minimum development standards (see Section IV starting on page 7), regulatory flexibility (see Section V starting on page 16) and nonconformances (see Section VI starting on page 16).

- Review and provide direction on **shoreline setbacks for other shoreline environments** (see Section VII starting on page 17).
- Review and provide direction on **general regulations, shoreline use and shoreline modifications** provisions not yet reviewed by the Planning Commission (see Section VIII starting on page 22).

II. INTRODUCTION

1. **Recommended Agenda.** On December 11, 2008 the Commission continued its review of initial drafts of the regulations associated with the Shoreline Master Program. At the January 8, 2009 meeting, we will continue working through the topics covered in the staff memo for the December 11, 2008 meeting. This packet contains additional materials related to the first item to be discussed, shoreline setbacks in the Residential – L shoreline environment. However, for the remainder of the topics to be addressed at the January 8th meeting, we will be working from materials contained in the December 11, 2008 meeting. As a result, **please be sure to bring your copy of the December 11, 2008 packet to the January 8th meeting, since we will be working from this previous packet as well as the materials enclosed with this packet.**
2. The key topics reviewed included shoreline enhancement and shoreline setbacks. For the January 8, 2009 meeting, staff would recommend reviewing the following:
 - **Shoreline setbacks for Residential – L shoreline environment.** Staff recommends that the Planning Commission continue working through the issues related to **shoreline setbacks**, including:
 - 1) **Method for determining setbacks (percentage or distance by lot depth)**
 - 2) **Appropriate base standard**
 - 3) **Allowed activities within the base setback**

Staff has provided a further refinement of Concept 4 for the Residential – L environment, which includes different concepts for setback standards, using distance by lot depth (as previously presented), percent of lot depth, and a combination of these concepts. (Note: In addition, staff recommends that the Planning Commission review the setback options for the remaining shoreline environments, but recommends that this discussion occur after the context for the Residential – L shoreline environment is completed so that we can work on how to refine this concept, as needed, for other shoreline environments. See Section VII for more information).
 - **Minimum Development Standards.** In addition to shoreline setbacks, staff recommends that the Planning Commission continue working through the issues related to **minimum standards for new upland development** that are closely related to shoreline functions and processes, including:
 - 1) **Shoreline enhancement through softening of existing hardened shorelines**
 - 2) **Shoreline vegetation conservation and enhancement**

- 3) **Lighting standards**
- 4) **Land surface modification standards**
- 5) **Water quality standards**
- 6) **Lot coverage standards**

Staff has provided a further refinement of Concept 4 for the Residential – L environment, which includes provisions for required shoreline softening, as recommended by the Planning Commission at the December 11th meeting, provisions for tree retention, as well as shoreline vegetation enhancement. (Note: Standards for lighting, land surface modification, water quality, and lot coverage are contained in the December 11th packet, starting on page 97, 163, 99, and 134, respectively).

- **Regulatory Flexibility.** Staff further recommends that the Planning Commission continue working through the issues related to regulatory flexibility, which could provide **incentives for reduced shoreline standards in exchange for enhancements** to the shoreline environment. Key issues that need to be resolved include:
 - 1) **Type of regulatory flexibility that should be permitted** (e.g. setback, lot coverage, other)
 - 2) **Type of desired enhancements**
 - 3) **Degree of flexibility related to degree of enhancement**

Staff has provided a further refinement of Concept 4 for the Residential – L environment, which includes provisions for encroachments into the shoreline setback in exchange for shoreline enhancement.

- **Nonconformances.** Staff recommends that the Planning Commission discuss how to address nonconformances, specifically:
 - 1) Whether to allow greater **flexibility in the nonconformance provisions** in order to increase shoreline functions
 - 2) **When to encourage or require that nonconformances come into conformity.**

Staff has provided a further refinement of Concept 4 for the Residential – L environment, which includes provisions for limited additions to nonconforming structures, and nonconforming landscaping standards.

- **Other regulations.** In addition, with any remaining available time, staff would propose reviewing the following provisions that have been previously brought forward for Planning Commission review, but which the Planning Commission has not had an opportunity to discuss.

III. SHORELINE SETBACKS

- 1. **Planning Commission Direction.** At the December 11, 2008 meeting, the Planning Commission reviewed draft concepts for shoreline setbacks that would apply within the Shoreline – L shoreline environment, and recommended that staff continue to explore

Concept Approach 4, but start to evaluate **different approaches to measuring the setback**. There was concern expressed about the variability in the required setback depths between different groupings of lot depths and, as a result, staff now proposes three different conceptual schemes for Planning Commission review. Please see background materials from the December 11, 2008 meeting for additional information (e.g. purpose of shoreline setbacks, state requirements, a summary of existing conditions, etc.)

2. **Method for determining shoreline setbacks and Appropriate Base Standard.** Two important issues that still need to be resolved is the **method of measuring setbacks** (e.g. dimensions specified by lot depth or, alternatively, percentage) as well as the **appropriate base standard**.

The appropriate base standard is a difficult issue, since there are varying recommendations from different stakeholders on how to address this issue. As staff overviewed at the December 11th meeting and as evidenced by letters from interested individuals and groups that you have received, there is a **significant difference of opinion** as to whether the setback standard should be crafted to be:

- 1) More similar to existing standards in order to limit impacts on private property, or
- 2) More similar to best available science addressing riparian buffers, which would recommend buffers of upwards of 80-100 feet in order to provide appropriate protection of the lake environment.

As noted more specifically in the December 11th packet information, shoreline setbacks serve several different functions. The need for protection of riparian functions must also be balanced with the other priorities of the Shoreline Master Program, including promoting shoreline preferred uses, providing access to and use of the shoreline, and protecting private property rights.

As a result, though a review of scientific literature may suggest the need for larger shoreline buffers to protect more shoreline functions, staff has **proposed setback standards that are consistent with existing conditions and are focused on meeting a net loss standard**. Also, while staff understands that the standards proposed will impose greater requirements on private property, it is important to note that the current standards were crafted prior to much of the current scientific research and do not adequately address needed protection for minimum riparian functions.

The proposed changes try to **balance** these two interests and incorporate a **setback that is based on an evaluation of existing conditions while providing protection for shoreline functions**. Further, the regulatory flexibility is aimed at allowing for reductions in setbacks in exchange for improvement in shoreline ecology.

- a. **Setbacks measured by lot depth (Option 1 of Attachment 1).** This is the same concept as reviewed by the Planning Commission at the December 11, 2008 meeting, provided here for reference purposes.

Pros: This approach ties the required setback to the lot depth in order to balance the required setback with available lot depth.

Cons: As noted by the Planning Commission, this approach results in tremendous variability in required setbacks for lots that may be of a similar lot depth, but fall into different lot depth categories (e.g. 99 feet versus 101 feet in depth).

b. Setbacks measured as a percentage of lot depth (Options 2 through 4 of Attachment 1).

- i. **Option 2:** This option proposes lots less than or equal to 100 feet in depth to have a setback equal to 30 feet, while lots greater than 100 feet in depth would have a setback equal to 35% of the lot depth, but no more than 60 feet.

- 1. **Example.** The following is an example of the setback that would be required under this option for lots of varying depths. Note: In the Residential – L environment, most lots fall between a lot depth of 100 and 150 feet, with most frequency of lots around 120 feet in depth.

Below 100' lot depth = 30' setback
100' lot depth = 30' setback
110' lot depth = 38.5' setback
120' lot depth = 42' setback
125' lot depth = 43.75' setback
150' lot depth = 52.5' setback
175' lot depth = 60' setback
200' lot depth = 60' setback
225' lot depth = 60' setback
250' lot depth = 60' setback

Pros: This approach allows a smaller required setback for shallower lots because of their more limited lot depth and ability to accommodate a larger setback.

Cons: Because of the different percentages used by lot depth, this option suffers from the same problem as does Option 1. This approach results in tremendous variability in required setbacks for lots that may be of a similar lot depth, but fall into different lot depth categories (e.g. 99 feet versus 101 feet in depth).

- ii. **Option 3:** This option proposes that all lots would have a setback equal to a minimum of 30' or 30% of the lot depth, but no more than 60 feet.

- 1. **Example.** The following is an example of the setback that would be required under this option for lots of varying depths.

Below 100' lot depth = 30' setback
100' lot depth = 30' setback
110' lot depth = 33' setback
120' lot depth = 36' setback
125' lot depth = 37.5' setback
150' lot depth = 45' setback

175' lot depth = 52.5' setback
200' lot depth = 60' setback
225' lot depth = 60' setback
250' lot depth = 60' setback

Pros: This approach would reduce the setback distance required for most lots.

Cons: As a result of the minimum 30 feet standard, this approach requires lots under 100 feet in depth to provide a larger percentage of their lot depth for the shoreline setback, as compared to other lot depths. It is also not clear whether this option will meet no net loss, since the setbacks are, in many cases, less than existing conditions. Further review could be done to see if other required standards could, in combination, make up this difference.

iii. **Option 4:** This option proposes that all lots would have a setback equal to a minimum of 30' or 35% of the lot depth, but no more than 60 feet.

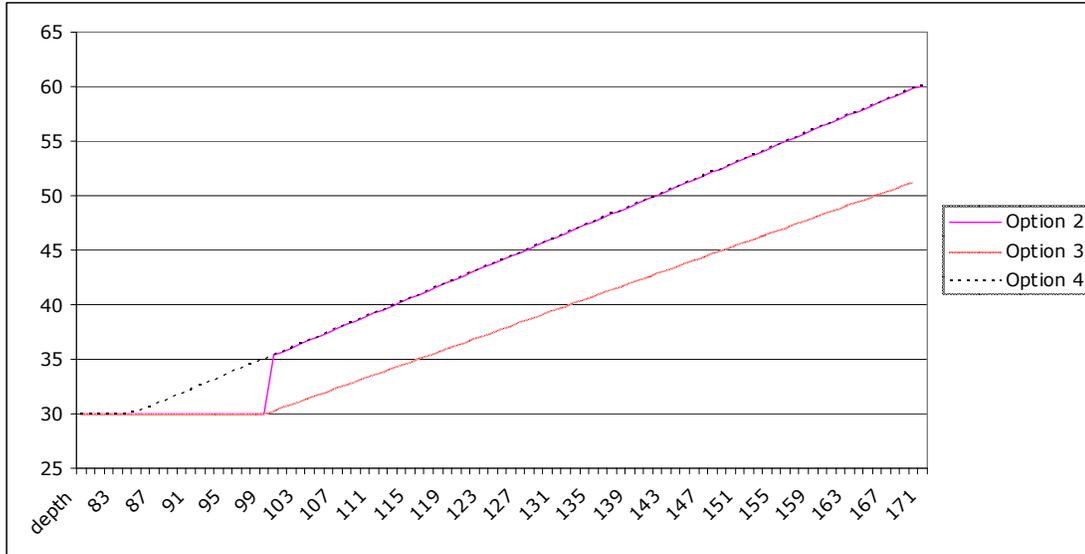
1. **Example.** The following is an example of the setback that would be required under this option for lots of varying depths. Note: In the Residential – L environment, most lots fall between a lot depth of 100 and 150 feet, with most frequency of lots around 120 feet in depth.

Below 100' lot depth = ranges from 30 to 34.5' setback
100' lot depth = 35' setback
110' lot depth = 38.5' setback
120' lot depth = 42' setback
125' lot depth = 43.75' setback
150' lot depth = 52.5' setback
175' lot depth = 60' setback
200' lot depth = 60' setback
225' lot depth = 60' setback
250' lot depth = 60' setback

Pros: This approach requires an equitable setback percentage from each lot, except for lots over 175 feet, which are capped at a 60-foot setback.

Cons: This approach provides a larger setback for shallower lots than Option 2 and a larger setback for all lots than Option 3.

The following graph depicts the differences in these approaches:



- c. **Allowed encroachment into required shoreline setback.** Attachment 9 of the December 11, 2008 packet (starting on page 142) provides draft standards that address what encroachments may be permitted within the shoreline setback. These provisions contemplate further encroachment into the shoreline setback to accommodate common appurtenances such as decks, walkways, and other improvements. The current SMP does not specifically address what encroachments are permitted within the shoreline setback, but the Zoning Code does outline a number of allowed improvements within [KZC 115.115](#). The draft standards are, in certain scenarios, **more restrictive** on the type of encroachments permitted within the shoreline setback than currently provided in KZC 115.115. For instance, the current zoning code provisions addressing setback encroachments permit unlimited improvements in a setback as long as they do not extend more than 4" above finished grade. The proposed SMP standards, however, would propose to limit encroachment for decks and patios to no more the five (5) feet, regardless of whether the deck would not extend more than 4" above finished grade. This limitation has been proposed in order to limit impacts to shoreline functions and provide area for shoreline vegetation.

IV. MINIMUM DEVELOPMENT STANDARDS

This section addresses what standards, beyond typical setback standards, would apply to upland development, such as a new single family residence (e.g. lot coverage, shoreline vegetation, shoreline softening, etc.) that affect shoreline ecological functions.

1. Overview of Potential Impacts and Opportunities to address these Potential Impacts. As included in the December 11, 2008 packet, the following provides an **overview of development activities that negatively impact the lake's ecological function, and a list of activities which can improve it.** This list can be used to start evaluating the type of potential standards that could be included in the updated SMP that would address potential impacts from new development. (Note: The impacts noted below are summarized in more detail in the [Final Kirkland Shoreline Analysis Report](#),

sections of which have been included in Attachment 2. References to scientific studies are found in this Analysis Report).

	Development Impacts	Opportunities
Upland Action	<p>1. Increases in impervious surface coverage. Impervious surfaces and compact managed lawns interfere with infiltration of precipitation and rapidly send water “downstream” resulting in:</p> <ul style="list-style-type: none"> • Reduction in soil infiltration. • Increased velocity, volume and frequency of surface water flows. • Decreased bank stability and increased erosion. • Shifts in macroinvertebrate community composition. • Reduction in water quality. • Decline in fish species diversity. • Loss of vegetation. 	<ul style="list-style-type: none"> • Limit amount of property covered by impervious surfaces and provide opportunities for water to infiltrate (e.g., rain gardens or bioswales). • Retain existing trees and other shoreline appropriate vegetation. • Enhance shoreline vegetation. • Replace existing impervious surfaces with pervious materials to the extent feasible. • Use pervious materials for new impervious surfaces to the extent feasible.

	Development Impacts	Opportunities
	<p>2. Removal of existing vegetation.</p> <ul style="list-style-type: none"> • Loss of complex habitat features (i.e., woody debris, overhanging vegetation, emergent vegetation). • Loss of natural bank stabilization feature. • Restrict the ability of the lake to recruit large woody debris and organic material. Large woody debris and emergent vegetation are a source of nutrients, traps sediments; is a source of cover and refuge from predators; buffers high-energy water movements; provides potential roosting, nesting, and foraging opportunities for wildlife; provides foraging, refuge, and spawning substrate for fishes; and/or provides foraging, refuge, spawning, and attachment substrate for aquatic invertebrates and plants. • Lack of vegetation is a limiting factor in terrestrial species (birds, mammals, amphibians) use of the shoreline since cover, food, nesting sites, travel corridors, etc. are absent. • Food production is limited due to lack of native seed and fruit-bearing vegetation. • Reduced source of insects and other organic matter that drop into the water and provide food for fish and other aquatic life. 	<ul style="list-style-type: none"> • Retain existing trees and other shoreline appropriate vegetation. • Enhance shoreline vegetation. • Limit land surface modification activities and vegetation removal near the shoreline. • Develop farther back from lake to separate development impacts from the lake.
	<p>3. Increased nutrient and chemical loading to the lake, from number of sources including:</p> <ul style="list-style-type: none"> • Lawn treatment runoff (pesticides, fertilizers, herbicides). • Road and driveway runoff (hydrocarbons, metals). 	<ul style="list-style-type: none"> • Reduce stormwater runoff quantity and improve stormwater quality through use of pervious surfaces and providing opportunities for infiltration and biofiltration of runoff. • Use natural yard care practices and limit use of herbicides, pesticides, and fertilizers. • Develop farther back from lake to separate development impacts from the lake.

	Development Impacts	Opportunities
	<p>4. Introduction of non-native plants. Out-competes native vegetation, which eliminates native food sources, eliminates native amphibian egg attachment sites, can reduce water quality through interference with water flushing and reduced oxygen, and can alter predator-prey relationships and change fish behavior.</p>	<ul style="list-style-type: none"> • Remove or manage invasive vegetation. • Retain existing trees and other shoreline appropriate vegetation.
	<p>5. Introduction of lighting impacts. Can adversely affect bird migration, amphibian foraging and predator avoidance, and predator-prey relationships of fish in Lake Washington.</p>	<ul style="list-style-type: none"> • Limit intensity, quantity and duration of outdoor lighting • Appropriately shield outdoor lighting. • Develop farther back from lake to separate development impacts from the lake.
Action at or waterward of Ordinary High Water Mark	<p>1. Construction of bulkheads:</p> <ul style="list-style-type: none"> • Loss of complex habitat features (i.e., woody debris, overhanging vegetation, emergent vegetation). • Steepen the nearshore, providing less opportunity for gradual nearshore slopes to attenuate wave energy and provide refuge habitat for small fish from larger fish predators. • Creates a deeper, turbulent nearshore that is inhospitable to small fish and amphibians, as well as to emergent vegetation. • Reduces upwelling/downwelling areas, which are optimal for sockeye salmon spawning. • Limits natural recruitment of lakebed materials. 	<ul style="list-style-type: none"> • Enhance shoreline vegetation. • Reduce shoreline armoring by removing bulkheads, or pulling them back from ordinary high water. • Place fill material for purposes of habitat enhancement (creation of nearshore shallow-water habitat) waterward of the ordinary high water mark.

	Development Impacts	Opportunities
	<p>2. Construction of piers:</p> <ul style="list-style-type: none"> • Block sunlight and create large areas of overhead cover within the littoral zone. • Shade the lake bottom and inhibit the growth of aquatic vegetation. • Affect the size, density, and species composition of aquatic macrophytes living directly beneath them. • Interfere with migration of juvenile salmonids. • In-water structure and cover provides habitat for non-native predators. 	<ul style="list-style-type: none"> • Reduce overwater cover through size minimization of replacement over-water structures and use of grating. • Reduce size and number of in-water structures.

2. Analysis of Enhancement Value and Difficulty. The following is an initial attempt by staff to **categorize potential actions** by:

- 1) Their potential difficulty to implement, either because of the additional restriction it would place on private property or costs and effort
- 2) The potential benefit to shoreline ecological functions that could be realized. This list can be used to start **prioritizing the implementation of different provisions.**

Actions with Major Impact on ability to Improve/Maintain Shoreline Conditions

1. Less Difficult/Major

Retain existing trees and other shoreline appropriate vegetation.

Enhance shoreline vegetation.

Limit land surface modification activities and vegetation removal near the shoreline.

Use natural yard care practices and limit use of herbicides, pesticides, and fertilizers.

Place fill material for creation of nearshore shallow-water habitat waterward of the ordinary high water mark.

Limit intensity, quantity and duration of outdoor lighting.

2. Less Difficult/Less Major

Use pervious materials for new impervious surfaces to the extent feasible.

Appropriately shield outdoor lighting.

Remove or manage upland invasive vegetation (depending on a number of factors, such as size of area, degree of invasive cover, etc.)

3. Difficult/Major

Develop farther back from lake to separate development impacts from the lake and minimize impacts to the lake and the riparian nearshore.

Reduce shoreline armoring by removing bulkheads, or pulling them back from ordinary high water.

Reduce overwater cover through size minimization or replacement over-water structures and use of grating.

Reduce size and number of in-water structures.

4. Difficult/Less Major

Replace existing impervious surfaces with pervious materials to the extent feasible.

Remove or manage aquatic invasive vegetation.

Limit amount of property covered by impervious surfaces.

Actions with Less Major Impact to Improve/Maintain Shoreline Conditions

Less Difficult to Do

More Difficult to Do

3. **Planning Commission Direction.** At the December 11, 2008 meeting, the Planning Commission indicated that it wanted to further pursue requiring shoreline enhancement with new upland development and were interested in incorporating the full scope of opportunities in this regard, including softening of the shoreline, for major new development projects.
4. **Options for minimum standards for new upland development.** Staff recommends that the Planning Commission continue working through the issues related to **minimum standards for new upland development** that are closely related to shoreline functions and processes, including:
 - 1) Shoreline enhancement through softening of existing hardened shorelines
 - 2) Shoreline vegetation conservation and enhancement
 - 3) Lighting standards
 - 4) Land surface modification standards
 - 5) Water quality standards
 - 6) Lot coverage standards

Staff has drafted proposed regulations addressing each of these topics areas and requests that the Planning Commission review these standards in order to determine **what minimum standards should be required for new upland development activities:**

- a. Shoreline enhancement through softening of existing hardened shorelines (see Attachment 1). In response to the Planning Commission's discussions on this issue, staff has refined Option 4 (see Attachment 1) to include a provision addressing shoreline softening requirements tied to new construction in which the cost of all changes on the property exceeds 75 percent of the replacement cost of all existing improvements on the subject property in any five-year period.

However, staff has consulted with the City Attorney's Office to ensure that requirements for shoreline softening were viable to pursue in the context of new upland development and have been advised that there are significant legal issues associated with the type of regulation proposed. The City Attorney's Office can, if asked, provide an opinion memo on the topic. As a result, **staff is not recommending that the provisions drafted in Attachment 1 addressing shoreline enhancement be included.**

- b. Shoreline vegetation conservation and enhancement (see Attachment 1). As noted in past discussions and in the tables above, shoreline vegetation is an important component to shoreline functions and processes. Presently, much of Kirkland's shoreline does not contain shrub or trees within the riparian area. The standards proposed would focus on:
 - 1) **Retaining existing trees** within the shoreline area and
 - 2) Providing for **installation of shoreline vegetation** with development activities in order to improve existing conditions.

In addition, an **alternative compliance provision to the shoreline vegetation requirement has been provided**, to allow for property owner flexibility to undertake alternative shoreline enhancements.

c. Lighting Standards (see page 97 of the December 11, 2008 meeting packet).

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

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

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

d. Land Surface Modification Standards (see page 163 of the December 11, 2008 meeting packet). The State Guidelines do not specifically address land surface modification, but do focus on the use of clearing and grading regulations as one of the techniques that should be used as part of shoreline vegetation management.

The proposed regulations focus on **limiting potential impacts from land surface modification within the shoreline setback** area by narrowly scoping the permitted land surface modifications activities in this area. This may be more restrictive than the current SMP standards, which allowed land surface modification for 1) development of an approved activity, 2) use of the property, or 3) incidental landscaping for an existing use. Under the current standards, vegetation removal within the shoreline setback is not regulated by the City. The new provisions propose additional standards that would limit

removal of native vegetation or vegetation installed as part of an enhancement plan. The new standards also address potential erosion and drainage impacts.

- e. Water Quality Standards (see page 99 of the December 11, 2008 meeting packet). The Guidelines addressing water quality are contained in WAC 173-26-221(6) and focus on:

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

The existing SMP contains no specific regulations to address water quality, though there are provisions in place in the KMC that address water quality and storm water quantity City-wide. In response to this current gap in SMP provisions, staff is recommending new standards be adopted for water quality within the updated SMP. Proposed new standards would include:

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

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

In addition, the Planning Commission recommended that removal of aquatic vegetation, such as Eurasian milfoil, be allowed subject to the compliance with existing State regulations addressing this issue. The Department of Ecology has issued an Aquatic Plant and Algae Management General Permit covering aquatic plant and algae management activities that permits the

discharge of chemicals and other aquatic plant and algae control products into surface waters of the state of Washington. As part of the Restoration Plan efforts, staff will recommend that the City continue to work on this issue at a regional level with other Lake Washington jurisdictions

- f. Lot Coverage Standards (see page 134 of the December 11, 2008 meeting packet). New standards have been added for lot coverage not previously addressed in the SMP. In general, the property shoreline standards are **consistent with current zoning regulations**, except that in CBD 2, lot coverage on properties that abut Lake Washington has been reduced from 100% to 90% to reflect new requirement for vegetation along the shoreline edge.

V. REGULATORY FLEXIBILITY

Key issues that need to be resolved include:

- 1) **Type of regulatory flexibility** that should be permitted (e.g. setback, lot coverage, other),
- 2) **Type of desired enhancements and**
- 3) **Degree of flexibility related to degree of enhancement.**

Staff has provided a further refinement of Concept 4 for the Residential – L environment (see Attachment 1), which includes provisions for encroachments into the shoreline setback in exchange for shoreline enhancement.

1. **Planning Commission Direction.** At the December 11, 2008 meeting, the Planning Commission reviewed concepts for regulatory flexibility and concurred that there should be a regulatory incentive for enhancing the shoreline. Staff understood that the Planning Commission agreed that reductions in the required setback were a viable area to introduce regulatory flexibility and would recommend discussing whether any other provisions should be included. The Planning Commission discussed whether neighboring context, using an average of the neighboring shoreline setbacks, should be factored into the review of the setback reduction and opted not to include special standards to protect private views.

In addition, the Planning Commission expressed interest in **examining provisions in the Zoning Code** to determine whether other required yards, such as front yards, should be reduced in order to offset some of the impacts from larger shoreline setbacks. Staff concurs with this approach and would recommend that this issue be brought back at another meeting date, when revisions to the Zoning Code required to better coordinate between the updated SMP are discussed.

VI. NONCONFORMANCES

Staff recommends that the Planning Commission discuss how to address nonconformances, specifically:

- 1) Whether to allow **greater flexibility** in the nonconformance provisions in order to increase shoreline functions and

2) **When to encourage or require that nonconformances come into conformity.**

Staff has provided a further refinement of Concept 4 for the Residential – L environment, which includes provisions for limited additions to nonconforming structures, and nonconforming landscaping standards. The following summarizes some of the draft provisions that have been included:

1. **Special provisions for nonconforming setbacks that would permit minor additions in the shoreline setback to existing nonconforming structures located in the shoreline setback** As a general rule, nonconforming development may be continued provided that it is not enlarged, intensified, increased or altered in any way which increases its nonconformity. The special provisions included here would expand the opportunity for applicant's to enlarge structures that otherwise would not conform to shoreline setback standards, in exchange for shoreline restoration. (Note: The conceptual approaches do not include all nonconformance provisions that would apply, such as lot coverage, height and encroachment into other yards, just a special nonconformance provision that is proposed to address minor additions to existing nonconforming structures in the shoreline setback. Please see [WAC 173-27-080](#) for a full list of other standard nonconformance provisions).
2. **Provisions addressing nonconforming landscape standards.** Since the properties in the Residential – L do not currently have minimum landscape standards for shoreline vegetation, many of the properties will become nonconforming. This section **clarifies under what circumstances compliance with new shoreline vegetation standards would be required.** The standards provided in Attachment 1 are the same that are currently provided in the Zoning Code for nonconforming landscaping.

VII. CONCEPTUAL SETBACK OPTIONS FOR OTHER ENVIRONMENTAL DESIGNATIONS

Staff would recommend that the Planning Commission now address how these same issues (required setback, minimum development standards, regulatory flexibility, and nonconformances) should be carried forward for other shoreline environments. The following are some initial concepts for establishing new setback standards for other shoreline environments.

1. **Residential – M/H.** The Residential – M/H environment contains medium and high density residential development primarily in the area located south of the CBD. For this discussion, there are a couple of important concepts to keep in mind:
 - 1) Under the principles of the Shoreline Management Act multi-family development is not a preferred use in the Shoreline area,
 - 2) Multi-family development is already subject to specific landscaping standards under the zoning regulations, and
 - 3) These properties are subject to the public access walkway standards.

In a letter submitted by Futurewise, representatives have specifically addressed setbacks for this type of more intensive development and have recommended that higher intensity

uses be required to have larger buffer requirements (see Attachment 5). Staff recognizes that there is scientific support for this approach, but has concerns with this approach given the amount of existing development that is located in close proximity to the shoreline (existing conditions) and the lot depth patterns in this zone.

Staff recommends that the Planning Commission discuss what approach they would like to use for establishing setbacks in this area:

- 1) Based on review of existing conditions and concept of no net loss (note: options addressed below are based on this approach),
- 2) Based on standards that would be consistent with or greater than standards for the Residential – L shoreline environment, or
- 3) Based on a review of best-available science.

Shoreline Environment	Conceptual Approach	Staff Discussion
Residential – M/H	<p><i>Option 1:</i> Establish base setbacks for lots of varying depths. Include standards for use of native vegetation as part of required landscaping for multifamily or commercial projects. Allow voluntary reductions in the setback standards in exchange for additional shoreline restoration commensurate with proposed reduction.</p> <p>Example:</p> <p><u>Lots <100'</u>: Base setback of 25' (no further reduction permitted).</p> <p><u>Lots >100 and <150'</u>: Base setback of 30', can be reduced to a minimum of 25' with restoration.</p> <p><u>Lots >150'</u>: Base setback of 40', can be reduced to 25' with restoration.</p>	<p>Similar to issues discussed in the Residential – L environment, this approach results in tremendous variability in required setbacks for lots that may be of a similar lot depth, but fall into different lot depth categories (e.g. 99 feet versus 101 feet in depth).</p> <p>Generally, shoreline restoration of varying degrees would be part of a suite of options (such as creation of beach coves, etc.) that can be selected by applicants to reduce a shoreline setback – flexibility that may be well received by shoreline property owners.</p> <p>While setbacks are larger on deeper lots, property owners would have the option of reducing these setbacks to a more similar location as shallower lots, with additional mitigation.</p>

Shoreline Environment	Conceptual Approach	Staff Discussion
	<p>Option 2: Establish base setbacks for lots based on a percentage of lot depth. Include standards for use of native vegetation as part of required landscaping for multifamily or commercial projects. Allow voluntary reductions in the setback standards in exchange for additional shoreline restoration commensurate with proposed reduction.</p> <p>Example: Twenty-five (25) % of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet. Allow reductions to 25' with restoration.</p>	<p>As a result of the minimum 30 feet standard, this approach requires lots under 100 feet in depth to provide a larger percentage of their lot depth for the shoreline setback, as compared to other lot depths. This could be addressed by permitting another minimum (e.g. 25 feet), but this does not provide any opportunity for shoreline enhancement with reduced setbacks.</p> <p>Generally, shoreline restoration of varying degrees would be part of a suite of options (such as creation of beach coves, etc.) that can be selected by applicants to reduce a shoreline setback – flexibility that may be well received by shoreline property owners.</p> <p>While setbacks are larger on deeper lots, property owners would have the option of reducing these setbacks to a more similar location as shallower lots, with additional mitigation.</p>

2. **Urban Mixed.** The Urban Mixed environment contains business districts located along the lake, including the CBD, JBD, and Carillon Point. For this discussion, there are a couple of important concepts to keep in mind:

- 1) There is an established preference in the Shoreline Management Act for water-oriented uses,
- 2) Commercial development located within business districts are already subject to specific landscaping standards under the design or zoning regulations, and
- 3) These properties are subject to the public access walkway standards.

In a letter submitted by Futurewise, representatives have specifically addressed setbacks for this type of more intensive development and have recommended that higher intensity uses be required to have larger buffer requirements, with the only exception being for water-dependent and water-related uses Futurewise also recommends that water-enjoyment uses be subject to higher buffer standards. (see Attachment 5).

Staff recommends that the Planning Commission discuss what approach they would like to use for establishing setbacks in this area.

Shoreline Environment	Conceptual Approach	Staff Discussion
Urban Mixed	<p>Option 1: Establish a base setback that would apply to all properties, similar to the existing median structure setback, in this case approximately 30 feet. Include standards for use of native vegetation as part of required landscaping.</p>	<p>Kirkland lots within shoreline business districts are quite variable in depth and this one-size fits all approach does not respond well to existing conditions. For instance, within the Urban Mixed zone, there are a number of lots that are greater than 200 feet in depth, but there are also lots less than 100 feet in depth. Increasing development closer to the shoreline may not appropriately reserve sufficient areas closer to the shoreline for water-dependent uses.</p>
	<p>Option 2: Establish different setbacks based on the land use to promote water-oriented uses along shoreline. Include standards for use of native vegetation as part of required landscaping.</p> <p>Example:</p> <p>Water-dependent uses: 0 – 16’</p> <p>Water-related use: 20’</p> <p>Water-enjoyment use: 30’</p> <p>Other uses: 50’</p>	<p>This option establishes a priority for water-dependent uses to locate closer to the shoreline.</p>
	<p>Option 3: Establish different setbacks by commercial district, reflective of existing conditions. Include standards for use of native vegetation as part of required landscaping.</p> <p>Example:</p> <p>CBD: 20’</p> <p>Carillon: 50’</p> <p>Juanita: 30’</p>	<p>This option provides no priorities for water-dependent uses.</p>

3. **Urban Conservancy.** The Urban Conservancy environment contains mostly publicly owned park properties. For this discussion, there are a couple of important concepts to keep in mind:

- 1) There is an established preference in the Shoreline Management Act for water-oriented uses,
- 2) Public access is an important concept for development of public properties,
- 3) Vegetation is a common component of development of public properties. Staff recommends discussing whether the Planning Commission would want to require larger setbacks for water-enjoyment uses, in keeping with comments from Futurewise. At this point, Staff would not recommend greater setbacks, due to the desire to promote public enjoyment of the shoreline, particularly in the Urban Conservancy shoreline environment.

Shoreline Environment	Conceptual Approach	Staff Discussion
Urban Conservancy	<p><i>Option 1:</i> Establish different setbacks based on the land use, to promote water-oriented uses along shoreline. Include standards for use of native vegetation as part of landscaping.</p> <p>Example:</p> <p>Water-dependent uses: 0 – 16’</p> <p>Water-related use: 20’</p> <p>Water-enjoyment use: 30’</p> <p>Other uses: Outside of shoreline area, if possible, otherwise 50’</p>	<p>This option establishes a priority for water-dependent uses to locate closer to the shoreline.</p>

VIII. TOPICS CARRIED OVER FROM PREVIOUS MEETINGS

The following topics were originally presented in previous meeting packets, but because of time constraints, have yet to be discussed by the Planning Commission. If time were available at the January 8th meeting, staff would recommend reviewing these items, starting on page 23 of the December 11th meeting packet. **Please be sure to bring your copy of the December 11, 2008 packet to the January 8th meeting since we will be using this previous packet for review of these issues.**

IX. PUBLIC COMMENTS

This memo includes four (4) written comment letters (see Attachments 2 through 5).

X. ATTACHMENTS

1. Revised Option 4
2. Letter from Bob Style dated December 2, 2008
3. Letter from Jim Tosti dated December 10, 2008
4. Letter from Eastside Audobon Society dated December 8, 2008
5. Letter from Futurewise dated December 10, 2008

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

APPROACH OPTION #4 – Residential - L

The following is a conceptual overview of Option #4. It is not intended to be the final proposed regulation language, which will be refined after further input on the concept is received.

Shoreline Setbacks

Issue 1: What method should be used to determine setbacks?

- Setbacks measured by lot depth
- Setbacks measured as a percentage of lot depth
- Other?

Issue 2: What distance or percentage should be used?

Issue 3: What activities should be allowed within the setback?

- Decks, patios and other similar improvements? (see pg. 142 of 12/11/08 packet)

Option 1:

1. Shoreline Setback Standard

Lot Type	Required Shoreline Setback with shoreline vegetation enhancement and setback reduced down to 25' with enhanced mitigation
Average lot depth ≤100 feet	30 feet
Average lot depth >100 and ≤150 feet	40 feet
Average lot depth >150 feet	50 - 70 feet (Note: Staff will need to evaluate the appropriate cap for the shoreline setback under a cumulative impact analysis to determine what standard is needed to comply with no net loss).

Option 2:

1. Shoreline Setback Standard

Lot Type	Required Shoreline Setback with shoreline vegetation enhancement and setback reduced down to 25' with enhanced mitigation
Average lot depth ≤100 feet	The greater of: 30% of average parcel depth or 30 feet
Average lot depth >100 and ≤150 feet	35% of average parcel depth
Average lot depth >150 feet	The lesser of: 35% of average parcel depth or 60 feet.

Option 3:

1. Shoreline Setback Standard. Thirty (30) % of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet.

(Note: Staff will need to evaluate the cap for the shoreline setback under a cumulative impact analysis to determine what standard is needed to comply with no net loss).

Option 4:

1. Shoreline Setback Standard. Thirty-five (35) % of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet.

(Note: Staff will need to evaluate the cap for the shoreline setback under a cumulative impact analysis to determine what standard is needed to comply with no net loss).

Minimum Standards

Issue 4: What minimum standards should be required for new upland development activities (e.g. new residences, commercial, multifamily, etc.)?

- **Shoreline enhancement (see #2 below)**
- **Shoreline vegetation (see #3 below)**
 - **Tree Retention**
 - **Minimum shoreline landscape standards**
- **Lighting standards (see page 97 of 12/11/08 packet)**
- **Land Surface Modification standards (see page 163 of 12/11/08 packet)**
- **Water Quality (see page 99 of 12/11/08 packet)**
- **Lot coverage (see page 134 of 12/11/08 packet)**
- **Other?**

2. Shoreline Enhancement

a. **Standard.** An applicant for a development activity shall implement one of the following shoreline enhancement strategies, which appear in order of preference, unless otherwise exempted under the provisions of subsection b) below:

- i) Removing an existing bulkhead or a portion thereof that is at minimum 15 feet in length which is located at, below, or within 5 feet landward of the lake's ordinary high water mark (OHWM) and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition. Restoration of the shoreline can include use of soft shoreline stabilization measures, including the use of gravels, cobbles, boulders, and logs, as well as vegetation, provided these soft shoreline protection structures are consistent with the standards contained in Section 83.280.
- ii) Setting back bulkheads or portions of bulkheads from the ordinary high water mark and subsequent restoration of the shoreline to a natural or semi-natural state, including creation of shallow-water beach habitat and beach/substrate composition.
- iii) Placing fill material for purposes of habitat enhancement (creation or restoration of nearshore shallow-water habitat) waterward of the ordinary high water mark.

b. **When Required.** The applicant shall comply with the provisions of this section under the following circumstances:

- i) The cost of all changes on the property located in the shoreline jurisdiction exceeds 75 percent of the replacement cost of all existing improvements on the subject property in any five-year period according to the following:
 1. Building alteration costs shall be evaluated using the current Building Valuation Data charts published annually by the International Conference of Building Officials (ICBO) on file with the City Building Official. Any valuations not specified in that publication will be determined by the Planning Official.
 2. The City shall track the cumulative building alterations in a five-year time period using historical Building Permit information.
- ii) The applicant or previous owner of the subject property installed shoreline stabilization structures as part of a shoreline permit approved after March 24, 1999.

iii) The soft shoreline stabilization technique is determined by the Planning Official to not be technically feasible. The determination of whether shoreline softening is technically feasible shall be made by the Planning Official as part of the decision on the underlying permit after consideration of a report prepared by a qualified professional addressing the following factors:

1. Site conditions, including topography, water depth, and the location of the primary structures, utilities, and other improvements in relation to the Ordinary High Water Mark.
2. Existing site conditions on adjoining properties.
3. Locational conditions such as wave fetch, wind velocity and direction, etc.

As part of the determination of feasibility, the Planning Official may require the following:

4. A geotechnical report demonstrating the need for hard shoreline stabilization structures to protect primary structures from damage due to erosion caused by natural processes, such as waves.
5. Funding of a qualified geotechnical engineer or engineering geologist, selected and retained by the City subject to a three-party contract, to review the geotechnical report and recommendations.

3. Required Shoreline Vegetation.

a. Tree Retention. To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained as follows:

i. Tree removal on a property on which no development activity is proposed or in progress.

1. Submittal Requirements – When proposing to trim or remove any tree located within the shoreline setback, the property owner must submit a report to the City containing the following:

- 1) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of structures, driveways, access ways and easements.
- 2) An arborist report explaining how the tree(s) fit the criteria for a nuisance or hazard tree. This requirement may be waived by the Planning Official if it is determined that the nuisance or hazard condition is obvious.
- 3) If removal of a significant tree in the shoreline setback area is approved by the Planning Official, a three-for-one replacement is required. The required minimum size of the replacement trees shall be (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree. For required replacement trees, a planting plan showing location, size and species of the new trees is required.

2. Standards - Within the shoreline setback, existing significant trees shall be retained unless the tree is determined to be a hazard or nuisance tree.

- 1) Hazard Tree Criteria. A hazard tree must meet the following criteria:

- i. The tree must have a combination of structural defects and/or disease which makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property; and
 - ii. The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.
 - 2) Nuisance Tree Criteria. A nuisance tree must meet the following criteria:
 - i. Tree is causing obvious, physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, roof;
 - ii. Tree has been damaged by past maintenance practices, that cannot be corrected with proper arboricultural practices; or
 - iii. The problems associated with the tree must be such that they cannot be corrected by any other reasonable practice. Including but not limited to the following:
 - 1. Pruning of the crown or roots of the tree and/or small modifications to the site including but not limited to a driveway, parking lot, patio or sidewalk to alleviate the problem.
 - 2. Pruning, bracing, or cabling to reconstruct a healthy crown.
- ii. Tree removal on a property on which development activity is proposed or in progress.
 - 1. Submittal Requirements – When proposing a development activity on a lot containing trees within the shoreline setback, the following shall be required:
 - 1) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of structures, driveways, access ways and easements.
 - 2) An arborist report stating the size (DBH), species, and assessment of health and determination of all trees located within the shoreline setback. This requirement may be waived by the Planning Official if it is determined that there are no trees within the shoreline setback that have the potential to be impacted by proposed development activity.
 - 2. Standards -
 - 1) Within the shoreline setback, existing significant trees shall be retained, provided that the trees are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained with proposed development activity. The Planning Official is authorized to require site plan alterations to retain significant trees in the shoreline setback. Such

alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The applicant shall be encouraged to retain viable trees in other areas on-site.

- 2) If removal of a significant tree in the shoreline setback area is approved by the Planning Official, a three-for-one replacement is required. The required minimum size of the replacement trees shall be (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.
 - 3) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline setback must be native species.
- b. Tree Pruning. Non-destructive thinning of lateral branches to enhance views is allowed, but in no circumstance shall removal of more than half of the live crown be permitted.
- c. Minimum Landscape Standard Compliance. The applicant shall plant native vegetation, as necessary, in at least 75 percent of the nearshore riparian area located along the water's edge. The nearshore riparian area shall average 10 feet in depth from the ordinary high water mark, but may be a minimum of five feet wide to allow for variation in landscape bed shape and plant placement.

Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline must be included in the plan. Plant materials must be native and selected from the Kirkland Native Plant List.

- d. Landscape Plan Required. The applicant shall submit a landscape plan that depicts the quantity, location, species, and size of plant materials proposed to comply with the requirements of this section, and shall address the plant installation and maintenance requirements set forth in KZC Section 95.45. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown. Preparation of a revegetation plan shall be completed by a qualified professional.
- e. Alternative Compliance. Landscaping required by this section shall be performed in compliance with the applicable standards contained in this section, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes. Requests to use alternative measures and procedures shall be reviewed by the Planning Official and City's consulting biologist, who may approve, approve with conditions, or deny the request. The cost of producing and implementing the plan, as well as the review of the proposal by the City's consulting biologist, shall be borne by the applicant. Examples include but are not limited to:
- i. Removal of an existing bulkhead covering at least 15 feet of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM and subsequent restoration of the shoreline to a natural or semi-

- natural state, including creation of shallow-water beach habitat and beach/substrate composition.
- ii. Setting back bulkheads or portions of bulkheads from the ordinary high water mark and subsequent restoration of the shoreline to a natural or semi-natural state, including creation of shallow-water beach habitat and beach/substrate composition.
 - iii. Use of low impact development techniques that demonstrate a significant reduction to stormwater runoff from the site, including but not limited to:
 - 1. Use of pervious pavement/materials for all proposed hard surfaces, including but not limited to private driveways, patio, walkways, private roads, parking areas, and sidewalk areas;
 - 2. Reduction of total impervious surface on the subject property to a minimum of 15 percentage points less than allowed under standard lot coverage provisions;
 - 3. Direction of a minimum of 90 percent of the site's runoff to on-site biofiltration swale or raingardens;
 - 4. Use of vegetated roofs for a minimum of 70 percent of the effective roof area. Installation of a vegetated roof in accordance with the King County Surface Water Design Manual, Low Impact Development Technical Guidance Manual for Puget Sound or equivalent resource; or
 - 5. A combination of these or similar strategies.
 - iv. Placing fill material for purposes of habitat enhancement (creation or restoration of nearshore shallow-water habitat) waterward of the ordinary high water mark.
 - v. Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish. Opened watercourses must be provided with a native planted buffer at least five (5) feet wide on either side of the stream and a minimum 20 foot wide structure setback measured from the ordinary high water mark of the stream, and must not encumber adjacent properties without express written permission of the adjacent property owner. Opened watercourses must be designed by a qualified professional with experience in stream restoration.
- f. Responsibility for Regular Maintenance.
- i. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of landscaping required under this section. Plants that die must be replaced in kind.
 - ii. All required landscaping shall be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and a recorded agreement to maintain and replace all landscaping that is required by the City .
 - iii. All required landscaping must be allowed to develop to its typical mature height and form. Pruning should be conducted only as needed to maintain health and vigor of the plant, and is expected to be only minimally required for native species.

Regulatory Flexibility

Issue 5: What regulatory flexibility do you want to provide in exchange for shoreline enhancement?

- Reduction in shoreline setback
- Other

Issue 6: What type of shoreline enhancement actions should be required in exchange for regulatory flexibility?

4. Shoreline Setback Reductions
- a. The shoreline setback may be **reduced down to a minimum of twenty-five (25) feet** when setback reduction impacts are mitigated using a combination of the mitigation options provided in the table below to achieve an equal or greater protection of lake ecological functions. The following standards shall apply to any reduced setback:
- i. The minimum setback that may be approved through this provision is 25 feet. Any further setback reduction beyond that allotted in this Section shall require approval of a shoreline variance application.
 - ii. If a development activity is required to comply with the shoreline enhancement provisions of subsection 2 above, the water-related actions addressing shoreline softening below cannot be used to grant a shoreline reduction.
 - iii. All property owners who obtain approval for a reduction in the setback must comply with the best management practices contained in KZC Section 83.430.3.h addressing the use of fertilizer, herbicides and pesticides as needed to protect lake water quality.
 - iv. All property owners who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions in a form acceptable to the City Attorney, and recorded with the King County Department of Records and Elections. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.
- b. The shoreline setback may be reduced to no less than 25 feet in all cases by the following:

Shoreline Setback Reduction Alternatives

Reduction Mechanism		Reduction Allowance
Water Related Actions		
1	Removal of an existing bulkhead covering at least 75 percent of the linear lake frontage which is located at, below, or within 5 feet landward of the lake's ordinary high water mark (OHWM) and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition;	Reduce required setback by 10 percentage points
2	Removal of an existing bulkhead covering at least 15 linear feet of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or	Reduce required setback by 7.5 percentage points

Reduction Mechanism		Reduction Allowance
	enhancement of nearshore shallow-water habitat, beach/substrate composition;	
3	Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish; Opened watercourses must be provided with a native planted buffer at least five (5) feet wide on either side of the stream, and must not encumber adjacent properties without express written permission of the adjacent property owner. Opened watercourses must be designed by a qualified professional.	Reduce required setback by 5 percentage points
Upland Related Actions		
4	Installation of biofiltration/infiltration mechanisms such as bioswales, created and/or enhanced wetlands, or ponds that exceed standard stormwater requirements.	Reduce required setback by 2 percentage points
5	Use of “fully shielded cut off” fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and direct the light toward the ground for any exterior light sources located on the west façade of the residence or other façades with exterior light sources are directed towards the lake.	Reduce required setback by 2 percentage points
6	Installation of pervious material for all pollution generating surfaces such as a driveway, parking or private road.	Reduce required setback by 2 percentage points
7	No more than 50 percent of the reduced setback area can be lawn.	Reduce required setback by 2 percentage points
8	Preserving or restoring at least 20 percent of the total lot area outside of the reduced setback and any critical areas and their associated buffers as native vegetation.	Reduce required setback by 2 percentage points

Nonconformances

Issue 7: What flexibility should be provided to nonconforming structures to increase shoreline functions?

Issue 8: When should nonconformances be encouraged or required to come into conformity?

5. Nonconformances.
 - g. Setback Nonconformance Standards.
 - i. Increases in structure footprint outside of the shoreline setback shall be allowed, even if all or a portion of the previously approved footprint is within the shoreline setback.
 - ii. Enlargement or expansion of a detached dwelling unit located partially or wholly within the shoreline setback by the addition of gross floor area that would increase the non-conformity and/or encroach farther into the shoreline setback where new structures or developments would not now be allowed may be approved if all of the following criteria are met:
 - iii. Enlargement or expansion of a detached dwelling unit located partially or wholly within the shoreline setback by the addition of gross floor area that would increase the non-conformity and/or encroach farther into the shoreline setback may be approved if all of the following criteria are met:
 1. The structure must be located landward of the ordinary high water mark.
 2. The enlargement or expansion in the shoreline setback shall not exceed 10 percent of the gross floor area of the existing dwelling unit prior to the expansion.
 3. The enlargement, expansion or addition shall not extend further waterward than the existing primary residential structure, not including appurtenances permitted under Section 83.170, such as bay windows or eaves. Encroachments that extend waterward of the existing residential foundation walls require a shoreline variance.
 4. The applicant must restore a portion of the shoreline setback area to offset the impact, such that the shoreline setback area will function at a higher level than the existing conditions. The restoration plan shall be prepared by a qualified professional and shall be reviewed by the Planning Official and City's consulting biologist, who may approve, approve with conditions, or deny the request. The cost of producing and implementing the plan, as well as the review of the proposal by the City's consulting biologist, shall be borne by the applicant. Examples include, but are not limited to:
 - a. Installation of additional native vegetation within the shoreline setback that would otherwise not be required under this Chapter. At minimum, the area of shoreline setback restoration and/or enhancement shall be equivalent to the area impacted by the improvement.
 - b. Removal of an existing bulkhead covering at least 15 linear feet of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat.
 - c. Setting back bulkheads or portions of bulkheads from the ordinary high water mark and subsequent restoration of the shoreline to a

- natural or semi-natural state, including restoration of topography and beach/substrate composition.
- d. Placing fill material for purposes of habitat enhancement (creation or restoration of nearshore shallow-water habitat) waterward of the ordinary high water mark.
 - e. Other shoreline restoration projects that are demonstrated to result in an improvement to existing shoreline ecological functions and processes.
5. The applicant must comply with the best management practices contained in KZC Section 83.430.3.h addressing the use of fertilizer, herbicides and pesticides as needed to protect lake water quality.
 6. The applicant shall use of “fully shielded cut off” light fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and direct the light toward the ground for any exterior light sources located on the west façade of the residence or other façades with exterior light sources that is directed towards the lake.
 7. The remodel or expansion will not cause adverse impacts to shoreline ecological functions and/or processes.
- h. Nonconforming Landscaping. The landscaping requirements of this section must be brought into conformance as much as is feasible, based on available land area, in either of the following situations:
- i. An increase of at least 10 percent in gross floor area of any structure located in shoreline jurisdiction; or
 - ii. An alteration to any structure in shoreline jurisdiction, the cost of which exceeds 50 percent of the replacement cost of the structure.

Fellow shoreline owners:

December 2, 2008

After reviewing some of the proposed Shoreline Master Program amendments, I have the following concerns.

1. I had to repair my bulkhead. Even though the project was exempt from several provisions of the Shoreline Master Program, I still had to comply with the existing city, state, and federal regulations. I had to "soften" the bulkhead by putting in sloping cobbles and fish spawning gravel in the water although fish do not spawn there. For my 62 feet of waterfront, it cost \$17,500 and took 5 months. Yes, my property benefited, but so did the fish, adjacent properties, the city, the state, and those who use the lake. **Yet, I was the only one who had to pay for it.** Should I and other shoreline owners have to carry the burden alone? Instead, the city should do a citywide geotechnical report and provide the cobble and spawning gravel for each property owner thereby complying with the provision of the Shoreline Manage Program that mandates protection for single-family properties.
2. If you apply to remodel or build a new home, or repair your bulkhead, your property will become subject to review by the city. Homes close to the shoreline may cease to exist unless the homeowner pays for a hydraulic geotechnical report showing the need for a bulkhead. **The city just funded a private property owner's bulkhead on Juanita Creek to stabilize the shoreline and prevent erosion.** It cost \$345,000. They should do the same shoreline stabilization for lake front owners. This is a state mandated program that should be covered by the state.
3. To increase setbacks decreases the amount of property that can be used for a single-family home and where it's located on the property. The city has yet to meet with shoreline owners and show them the impacts of the new setbacks their properties. The city's **Shoreline flier dated 11-20-08** prepared for the Planning Commission shows the new setbacks. If you live on the shoreline, you should evaluate the new setbacks, 25, 30, or 50 feet from the shoreline, 25-foot front yard setback, and 5-foot side yard setbacks if you are north of downtown. There is right-to-sunlight provision of an additional 10 feet side yard setback on the north side for a total of 15 feet of shadow allowance during the winter to properties owners south of downtown.

Why is that different than any other property in Kirkland? I've included two setback examples. Contact the city (425-587-3225) for an example of the how the new setbacks affects your property.

4. To increase setbacks from bulkheads from 15 feet to 25, 30, or 50 feet is not justified. The city wants low profile vegetation to generate shadows along the shoreline. And yet, they want sunlight under docks adjacent to shorelines. That's not being consistent. Any low profile vegetation would have to be less than 3 feet in height not to block the view of the homeowner. It will not generate enough shadow area to enhance fish habit. It takes trees. A building 25 feet tall with a 15-foot setback does the same thing. To plant trees along the shoreline blocks views and decrease property values. Trees in the side yard setback and not in the shoreline setback are desirable.
5. The city's requirements for 30% of properties for view corridors are contrary to many of the city's desires. The city wants trees. I ask, does the city want greater side yard setback without trees and without morning shadows for the shoreline?
6. Instead of being straightforward and understandable, the proposed regulations allow for judgmental and subjective opinions anytime someone wants to build or remodel their single-family home. It's not required for other single-family homes in the city. By requiring either a SDP (Substantial Development Permit) or a CUP (Conditional Use Permit), the city is opening the door for a discretionary, possibly confrontational, and an uncertain process that regulates single-family homes. It increases the cost the applicant has to pay and the amount of time it takes to complete the process.

Thanks for listening to my concerns. I wish you the best over the holidays.

Sincerely,

Robert L. Style
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Kirkland, WA 98033
827-0216
rstyle@aol.com

Teresa Swan

From: Jim Tosti [jetosti@msn.com]
Sent: Wednesday, December 10, 2008 2:18 PM
To: Teresa Swan

Miss Swan,

I am a SPO that lives in Kirkland and have attended a couple of the PC meetings. I am an area wide developer and have been involved in these kinds of actions for many years. At one of the past PC meetings I requested a stakeholder's meeting and I have not heard back from the PC on this request. Since then I have requested two more times through Paul Stewart for a stakeholder's meeting and have heard nothing from him directly but have heard through Mark Nelson that he wants to limit the stakeholder number for a meeting.

My view on the above is quite simple, if the City or any of its commissions, councils, or representatives continues to refuse to let the PC have a stakeholders meeting or in any way tries to limit the number of stakeholders in a meeting then our group will take immediate action to force a stakeholders meeting.

I worked closely with the City of Sammamish on their moratorium in a situation somewhat like this and we were able to fashion an agreement between the PC and the stakeholders that we could both support at the council level. This is what we should be doing here. You need to be able to explain in a rational manor what your supportable needs are. At this point no shoreline owner understands or supports any of the reports you are basing your action on. In short, there is a large disconnect between what the PC is looking at doing by law and what may actually be accomplished in the field.

The single fact that the city exempted themselves from the kinds of regs that would apply to the shoreline owners is a show of bad faith on the City's part as is being seen that way citywide to those that are involved in this project.

I sincerely suggest that the City change its attitude towards the shoreline property owners and makes a sincere effort to bring us into these meetings as a valuable resource. This is the only way we are going to be able to get an update completed without untold amounts of money being spent on legal representation.

Jim Tosti

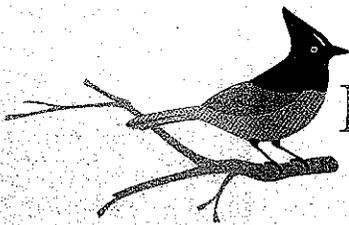
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PLANNING DEPARTMENT

PM

BY _____



Eastside Audubon
your connection to nature

birding
conservation
education

December 8, 2008

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

Re: Shoreline Management Plan Update

Dear Commissioners,

Eastside Audubon strongly endorses the concept of "no-net-loss" of shoreline ecological function and that the existing shoreline ecological function should remain the same or be improved over time.

To that end we urge the City of Kirkland to adopt the updated Shoreline Management Plan ("SMP") consistent with the Washington State Department of Ecology ("DOE") guidelines.

Key elements of the updated SMP to be implemented for new development or substantial redevelopment should include:

- Increased setbacks from the shorelines, streams and wetlands.
- Shoreline restoration that is appropriate to the existing site conditions, which could include bulkhead removal and replacement with soft structural shoreline stabilization measures.
- Other restoration techniques may include placement of gravel in front of an existing bulkhead or planting of native vegetation.
- Incorporation of natural shoreline vegetation planted at the shoreline edge.
- Revisions for piers and docks to make them more fish friendly.
- Emphasis on shared docks to reduce new structures in the water.
- New standards for application of herbicides, pesticides and fertilizers near shorelines.

Urban shoreline is only one small piece of the extensive area used by salmon, and yet it is the least survivable area for the species. These

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City of Kirkland
Planning Department
December 8, 2008
Page 2

proposed changes will greatly increase the habitability of Kirkland's shorelines for salmon and other wildlife who depend on this habitat. Regulations for every other zone where salmon exist are being changed to reflect the need and desire to restore habitat to survivable conditions. It's time to update shoreline regulations to be consistent with this trend.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim McGruder', with a long horizontal flourish extending to the right.

Tim McGruder
Conservation Chair



December 10, 2008

Kirkland Planning Commission
c/o Teresa Swan, Senior Planner
Kirkland Planning Department
23 5th Avenue
Kirkland, Washington 98033

Sent by email to: tswan@ci.kirkland.wa.us

Re: Kirkland Shoreline Master Program Update

Dear Planning Commission:

Futurewise appreciates the opportunity to comment on several important issues currently under discussion by the Planning Commission as the City of Kirkland develops its Shoreline Master Program (SMP) update. Futurewise is a statewide citizens group that promotes healthy communities and cities while protecting working farms, forests, and shorelines for this and future generations. A substantial number of our members live in the City of Kirkland.

We commend your planning staff for doing a very thorough job of describing several important issues you have been dealing with lately. As they have pointed out in previous materials, three of these issues are interrelated and need to be considered together. They are:

- Shore Stabilization – particularly bulkheads.
- Vegetative Buffers
- Restoration of degraded ecological functions

The reason these are interrelated is due to the highly degraded nature of Kirkland's waterfront shoreline. This degradation has happened over the course of 30 years or more, in spite of the Shoreline Management Act requirements to protect shorelines. It is a common situation in most cities in the state, and is major reason why restoration is now required for all updated Shoreline Master Programs. The City's restoration plan needs to include both incremental small-scale restoration in the course of permitting, and project restoration more typically undertaken by resource agencies and organizations (though on occasion, individual landowners may also do a restoration project).

The strategy for incorporating restoration into the permitting process is an important consideration that has been one of the subjects of the staff memos for the last few Planning Commission meetings. We understand it has been the cause for much public opposition, as well.

We are writing this letter to emphasize the importance of doing the right thing in developing the strategy for protecting and restoring Kirkland's Shorelines, particularly since Lake Washington is a Shoreline of Statewide Significance which must receive special consideration in your SMP.

The protection and restoration of shorelines needs to use current science and technology, follow a line of logic that makes sense, and is implemented by a clear and understandable system. Staff has laid out several options for each subject area. Using these options one can develop a restoration strategy. We

have thoughts on such a strategy that we would like to share, as well as some important additional points we would like to make on related issues.

In developing a restoration strategy to use in the Shoreline Regulations, we recommend the following:

1. **Establish what the science indicates is needed to protect ecological function.** This is one major issue we see that has not yet been dealt with.

The current standards in the SMP are 15 feet. These widths do not match what the science says is needed to protect near-shore and riparian functions, and it is imperative that the buffers be based on science. The science indicates that widths more in the range of 100 feet are needed; not considering providing wildlife habitat for even modest sized species.¹ The staff memos and attachments do a good job of describing the protection functions that buffers perform; however, the 20-50 foot buffer widths discussed in the staff memos also need to be changed to be based on science. The discussion of buffer widths in the staff memos are based on land use and existing conditions. While these are important considerations, the science on the buffer widths needed to protect fish and wildlife habitats must also weight heavily in the decision making process.

In addition, the buffer options in the staff memos use an approach of allowing higher intensity uses to have smaller buffers than lower intensity uses. Such an approach is opposite to the scientific findings that more intense uses need larger buffers. This approach in the buffer options needs to be changed, with the only exception being for water-dependent and water-related uses (there is no reason that water-enjoyment uses can't meet the buffer and maintain their enjoyment function).

A science-based buffer width is important, even in already developed areas, because it identifies the area where restoration needs to be considered. It also establishes the area where additional encroachments need to be thoughtfully designed and carefully considered, not assumed to be automatically acceptable. It does not mean that the entire buffer width has to be restored to original condition.

2. Acknowledge that a buffer that is degraded cannot protect the shoreline or critical area from the impacts of an adjacent use. This is one reason that restoration is needed in the regulations. For permit approvals, degraded buffers need to be restored as much as possible.
3. Acknowledge that existing development can continue to exist and operate without additional permits and without performing restoration. It is new development (on vacant land, redevelopment, expansions, etc.) that would be subject to the restoration requirements. This is a common concern for property owners in all SMPs and can be effectively dealt with through public education. Given shoreline land costs and the size and

¹ The maintenance of large woody debris requires 100 to 150 foot wide buffers. K. L. Knutson & V. L. Naef, *Management Recommendations for Washington's Priority Habitats: Riparian* p. 164 (Wash. Dept. Fish and Wildlife, Olympia WA: 1997). Available at: <http://wdfw.wa.gov/hab/ripsum.htm> This is important to maintaining habitat along the lake. For example, coho salmon smolts seek cover near large woody debris during migration. Tom Kahler, The Watershed Company, and Martin Grassley and David Beauchamp, Washington Cooperative Fish & Wildlife Research Unit, *Final Report: A Summary of the Effects of Bulkheads, Piers, and Other Artificial Structures and Shorezone Development on ESA-listed Salmonids in Lakes* p. 9 (Prepared for the City of Bellevue: 13 July 2000). Available at: http://www.ci.bellevue.wa.us/pdf/Utilities/dock_bulkhead.pdf. Wildlife habitat generally requires buffers of 100 to 200 feet wide, with wider buffers needed for some wildlife. *Management Recommendations for Washington's Priority Habitats: Riparian* p. 165 – 67.

- cost of new construction on shorelines, restoration costs will be a very small fraction of the total project costs.
4. Distinguish between new development that can meet the buffer and existing development already within the buffer. Two different approaches are needed.
 5. Where the buffer can be provided, degraded conditions should be addressed, and encroachments into the buffer need to meet the Shoreline Variance criteria, except for water-dependent and water-related uses, which have to be in the buffer by their nature.
 6. New permits for existing development already in the buffer also need to address degraded conditions; however, the existing facilities mean that the approach needs to be slightly different. The restoration approach will be very site specific, and the buffer would be restored as much as possible, which would need case-by-case consideration. Options could include reduction of lawn area, replanting buffer areas, fill removal or other grading options, etc. Most improvements to existing development that lie within the buffer would typically meet the Variance criteria, but such review will also ensure that the development adequately provides mitigation for increased impacts and increased intensity of use, rather than the historic practice of continual and gradual encroachment with little or no review under a Shoreline Exemption.
 7. Two options for shore stabilization were described in the staff memo. The first option included the use of a Conditional Use Permit for hard stabilization methods, while soft methods could use a Substantial Development Permit or, most typically, a Shoreline Exemption for residential bulkhead. The second option treated all stabilization as a Substantial Development Permit, and thus almost all bulkheads would be done under a Shoreline Exemption.

Given the high percentage of bulkheads on Kirkland's shorelines, it is critically important to halt the further armoring of the remaining unarmored shoreline segments. If hard stabilization methods are to be used, they need to be reviewed through a formal process, not a Shoreline Exemption. This would have to be the Conditional Use Permit.

Similar to the idea of mitigation sequencing (i.e. avoidance and minimization), a preference list needs to be incorporated into the shore stabilization provisions to emphasize the use of softer measures over harder measures, as follows:

- revegetation
- bio-engineering and wood structures
- rock structures
- concrete structures.

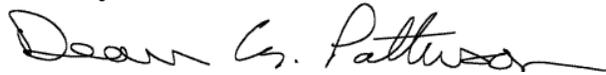
One of the staff memo options included the use of development/expansion thresholds that would trigger the need to undertake bulkhead restoration. We support such an idea. It is also consistent with the recommendations of the *Final Report: A Summary of the Effects of Bulkheads, Piers, and Other Artificial Structures and Shorezone Development on ESA-listed Salmonids in Lakes* which calls for the removal of bulkheads in favor of shoreline restoration measures such as low-gradient beaches and planting native vegetation to both protect upland properties and protect salmon habitat in Lake Washington.² These designs have been successfully used in recovery efforts on the Great Lakes.³

² Tom Kahler, The Watershed Company, and Martin Grassley and David Beauchamp, Washington Cooperative Fish & Wildlife Research Unit, *Final Report: A Summary of the Effects of Bulkheads, Piers, and Other Artificial*

8. A similar issue that will come up in the update is that of docks and piers. The percentage of properties with docks or piers is roughly the same as for those with bulkheads. While docks and piers have direct impacts in the water, they also have land-based components that equally impact the land within shoreline jurisdiction. Like bulkheads, it is critically important to protect the remaining segments of shoreline without docks or piers. Indeed, the *Final Report: A Summary of the Effects of Bulkheads, Piers, and Other Artificial Structures and Shorezone Development on ESA-listed Salmonids in Lakes* recommends consideration of “of ‘a no new piers’ policy as the best option for protecting fish and fish habitat. Encourage the use of floats or buoys instead.”⁴ The report recognizes that this may not be politically possible and recommends as a backup no net increase in overwater coverage. In order to build a new dock, existing docks would have to be slimmed down to to compensate for the increased coverage. So docks and piers should have carefully crafted standards to protect Lake Washington from their significant impacts. We have the following recommendations:
- A. Limit use: Prohibit docks and piers associated with non-water oriented uses, except for single family residences.
 - B. Require that any new area of docks and piers be mitigated by the removal of like area from another dock or pier (for example removal of a dilapidated dock, or a reduction of an overly-large dock).
 - C. Include design standards for docks and piers similar to those of the draft King County SMP; particularly as they relate to repair and replacement.
 - D. New and expanded docks and piers should be reviewed through a Conditional Use Permit.
 - E. As with other development, docks and piers should include restoration as much as possible.

Thank you for the opportunity to provide our thoughts to you. We strongly support your Planning Staff's effort to bring these difficult issues to light, and wish this to be a successful update effort. We also appreciate the many hours that the Planning Commissioners are devoting to this important project. It is easy to forget that you are all volunteers. Thank you for your important work. If you require more information please contact me at telephone (509) 823-5481 or email dean@futurewise.org.

Sincerely,



Dean Patterson
Shoreline Planner
Futurewise

Structures and Shorezone Development on ESA-listed Salmonids in Lakes p. 9 (Prepared for the City of Bellevue: 13 July 2000).

³ *Id.*

⁴ *Id.* at p. 51.