SHORELINE MASTER PROGRAM UPDATE

Shoreline Master Program (SMP) Workshop

February 28, 2009

SHORELINE MASTER PROGRAM UPDATE

Objectives for Update

- Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
- Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
- Protect investments along and near the shoreline.
- SMP is supported by Kirkland's elected officials, citizens, property owners and businesses, the State of Washington, and other key groups with an interest in the shoreline.
- Meet State SMP mandates.

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SHORELINE MANAGEMENT ACT (SMA)
RCW 90.58
To prevent harm caused by uncoordinated and piecemeal development of the state's major shorelines.

↓

Shoreline Master Program Guidelines
WAC 127-26

↓

Shoreline Master Program (SMP)
Carries out provisions of SMA
Must be approved by Dept. of Ecology, using policy of RCW 90.58.020 and Guidelines as approval standards/criteria

Note: SMP is a State-based regulation which we have less control over compared to typical zoning provisions

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Major **required elements** of SMP:

- Shoreline Inventory and Characterization
- Shoreline Goals and Policies
- Shoreline Environment Designations
- Shoreline Regulations
- Cumulative Impacts Analysis
- Restoration Plan

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Some of the **aspects required to be regulated** by the SMP:

- Bulk, dimensions & location of structures
- Site planning
- Vegetation conservation
- Shoreline stabilization
- Docks and moorage
- Public view corridors and public trails

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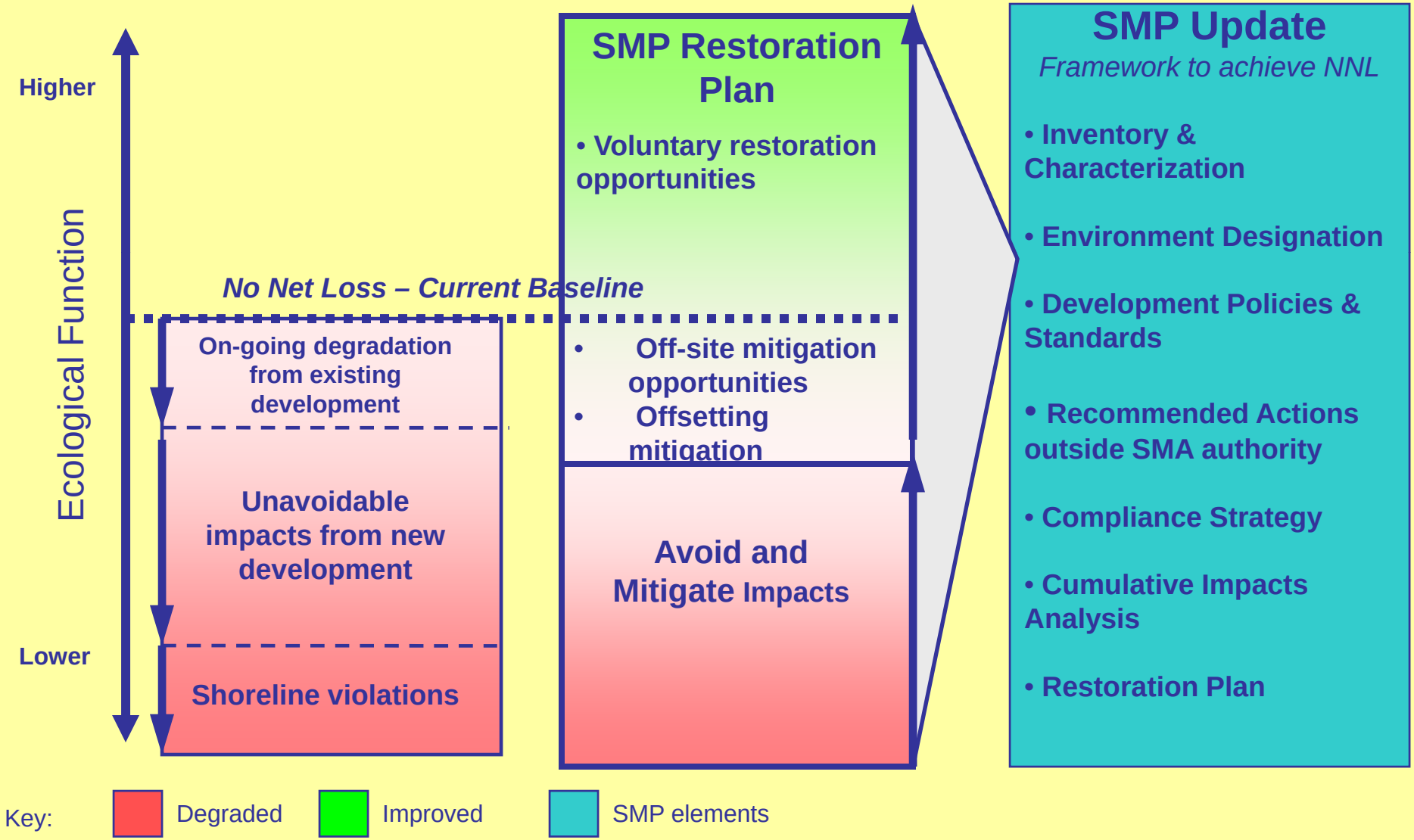
Some **Key Changes:**

- Implementing “no net loss” of ecological functions
- Shoreline Setbacks
- Shoreline Vegetation
- Shoreline Stabilization
- Piers

Graphic 1

SMP Updates: Achieving No Net Loss of Ecological Function



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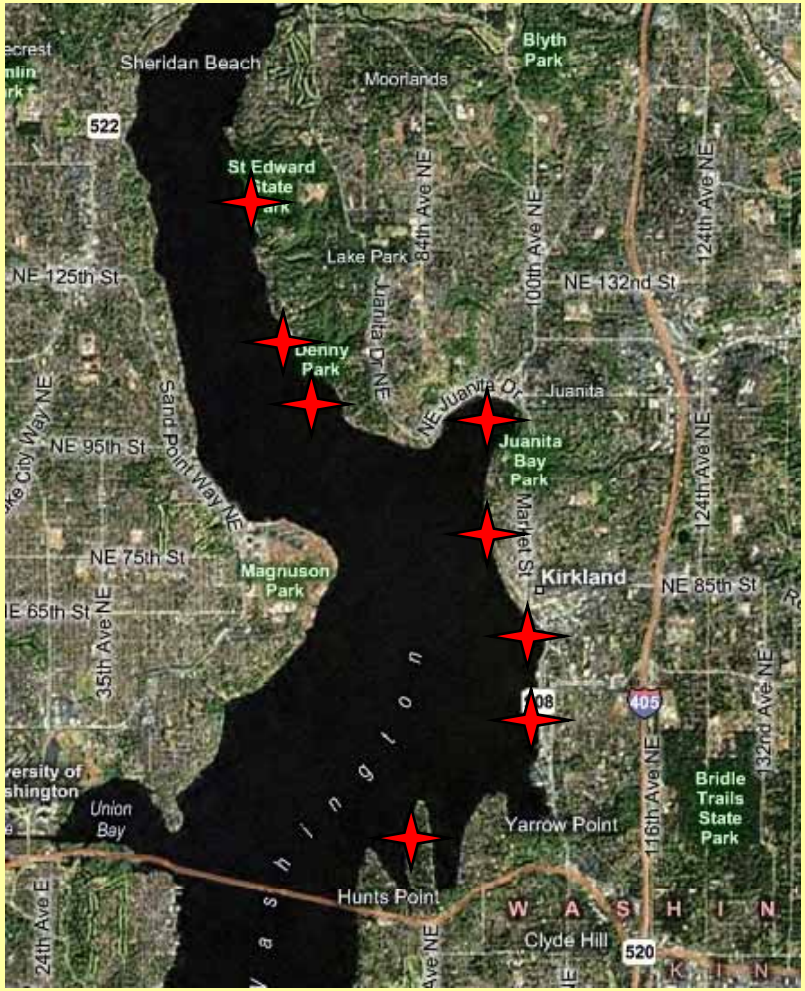
Chinook in Kirkland

- Locations of observed or captured juvenile chinook salmon in or near Kirkland



Shoreline Setbacks

- Purpose:
  - Reduce impact on shoreline habitat
    - Moderate surface water, chemical and sediment inputs
    - Buffer light and noise
  - Avoid damage from flooding and erosion
  - Minimize need for shoreline stabilization features
  - Community character

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Chinook Salmon Conservation Plan recommendations:

- **Riparian/shoreline buffers** should be increased to the extent practicable.
- Encourage **salmon friendly shoreline design** during new construction and redevelopment.
- Offer **incentives** and **regulatory flexibility** to shoreline property owners.
- Support **education and demonstration** programs.
- Apply shoreline restoration, appropriate use of pesticides, native landscaping, etc. in parks, street ends, and other **publicly owned property.**

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Goal:

Determine a setback standard that appropriately balances:

- *Ecological functions,*
- *Use of property, and*
- *Takes into account existing development patterns.*

Proposed Approach to Setbacks:

Review existing built conditions.

Proposed standard = existing median setback.

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Existing development patterns:

- Structures are, on average, built farther back from lake than required.
- Tremendous variability in lot & development conditions.
  - Residential – L (low-density):
    - Median existing setback of 42.5 feet
    - 35% of average parcel depth
  - Residential M/H (medium and high density):
    - Median existing setback of 24 feet
  - Urban Mixed
    - Median existing setback of 29 feet

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Shoreline Environment	Existing Shoreline Standards[1]	Proposed Shoreline Standards
Residential – L	15', 15% of average parcel depth, or average of adjoining lots, whichever is greater	Conceptual: Min. 30' or 35% of average lot depth to max. 60'
Urban Mixed	15' or 15% of average parcel depth, or average of adjoining residences	Under review, increases anticipated
Residential – M/H	15' or 15% of average parcel depth, whichever is greater	Under review, increases anticipated

1 **Note: No Net Loss relates to existing functions, not existing standards.**

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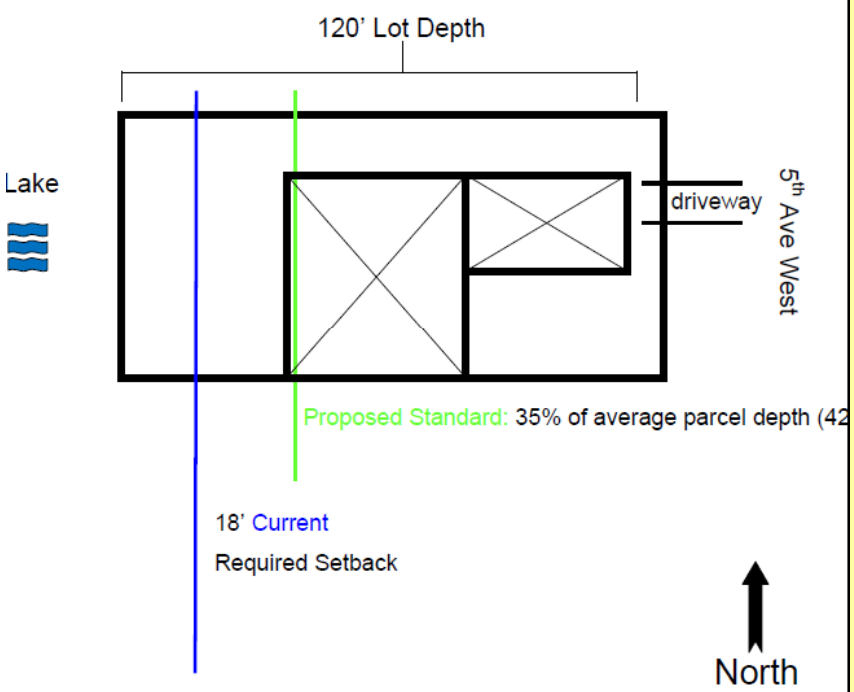
Existing Single Family Setback

in Market St. Neighborhood

(Residential –L Designation)

Lot Depth Group of 100' – 150' (median setback –39.8')

38.25' Existing Setback



Example diagram of proposed setback versus existing standard.

Average Lot Depth = 120 feet to private access drive

35% of average parcel depth = 42' setback

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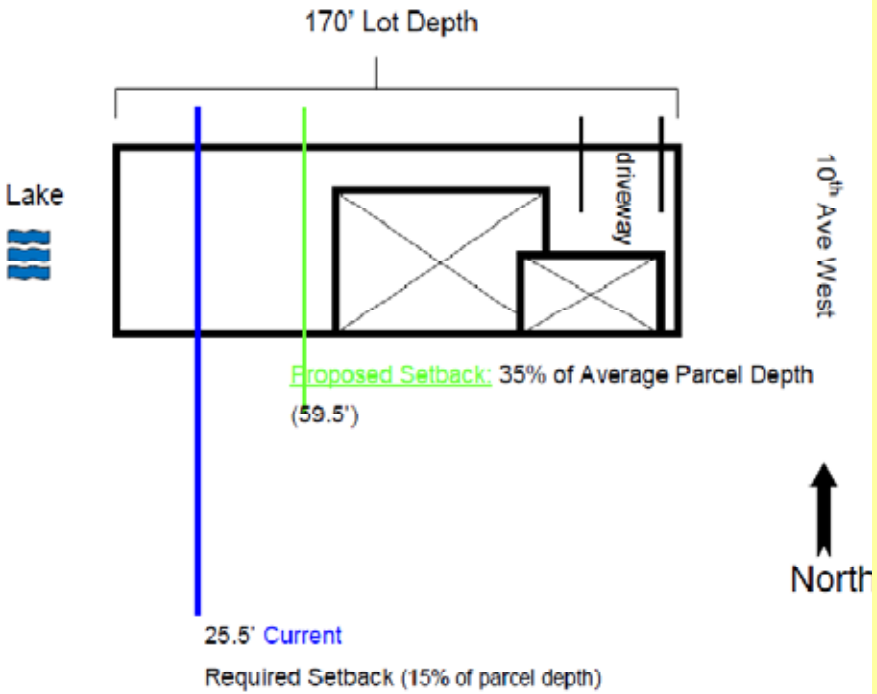
Existing Single Family Setback

in Market St. Neighborhood

(Residential –L Designation)

Lot Depth Group of > 150' (median setback – 74.9')

74.9' Existing Setback



Example diagram of proposed setback versus existing standard.

Average Lot Depth = 170 feet to public road

35% of average parcel depth = 59.5' setback

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Regulatory Flexibility

- Provide **regulatory flexibility** in exchange for improvement in ecological functions
  - Setback reductions
  - Other of interest to property owners?
- Permit improvements within setback (e.g. decks, pathways, etc.)
- Explore other areas of flexibility:
  - Reductions in other required yards
  - Other of interest to property owners?

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Shoreline Vegetation

Vegetation provides number of benefits to shoreline ecology

- Filter sediment and chemicals from runoff
- Provide food and shelter for fish and wildlife
- Stabilize banks
- Slow or prevent shoreline erosion.

Waterfront Construction

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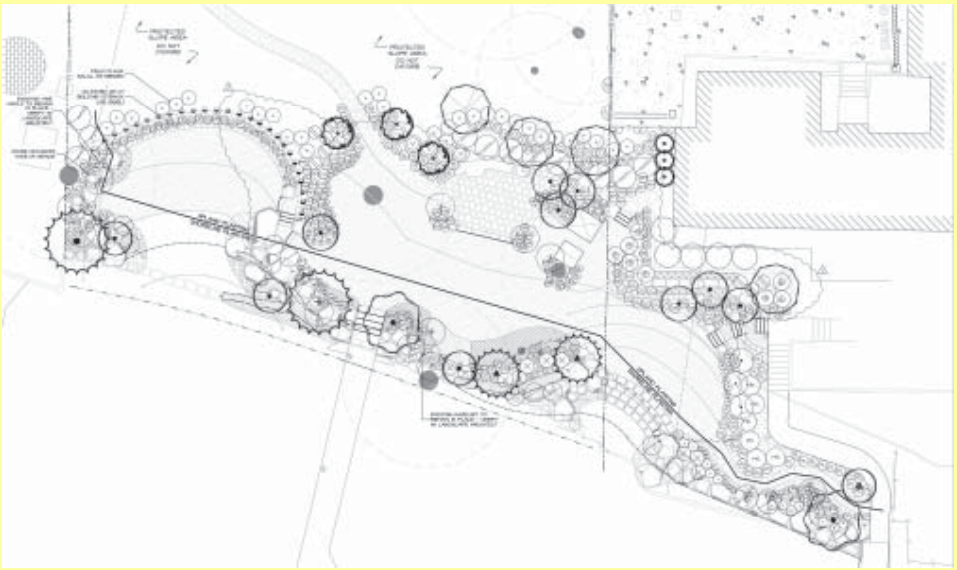

Goal:

Establish or preserve vegetation along the shoreline edge to contribute to ecological functions.

Proposed Approach:

Establish new standard for shoreline buffer of native plants (avg. 10’ in width). Allow variations.

Shoreline Stabilization

Review of key **State** provisions:

- **Protection of single-family residences**
- **Allow only where necessary**
- Existing primary structure **must be in danger from erosion** (not upland erosion)
- Danger = **geotechnical analysis** showing damage is likely within 3 yrs.
- **Allow bulkhead replacement if there is demonstrated need**.
- **Soft approaches must be used unless demonstrated not to be sufficient**.
- **Limit to minimum size**

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Ecological impacts of shoreline stabilization

(WAC 173-26-231(3)(a))

- Decrease natural gravel recruitment
- May cause excessive erosion on non-bulkheaded properties
- "Wave bashing" effect
- Decreases complex habitat
- Increases habitat for predators (bass/sculpin)

Soft engineering (vegetation enhancement, upland drainage control, strategic placement of gravel/cobble/boulders/logs) typically has smaller impacts than hard engineering (riprap, bulkheads).

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Chinook Salmon Conservation Plan recommendations:

- **Reduce bank hardening.**
- Recognize that **softening and removal of bulkheads** is the most important action to improve shoreline habitat.
- Better **assess needs for bulkheads**.
- Support development of federal/state/local specifications and **streamlined permitting for salmon friendly bulkheads**.
- Offer **incentives** to shoreline property owners to voluntarily remove bulkheads.
- Support **education and demonstration programs**.

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Goals:

- Ensure protection of property from erosion.
- Improve shoreline ecological functions.
- Enhance habitat for salmon
- Respond to new State requirements.
- Provide consistency with state and federal permitting.

Proposed regulations:

- New/replacement bulkheads permitted if necessary.
  - Danger from erosion.
  - Geotechnical analysis. Some waivers proposed.
- Existing bulkhead may be replaced if demonstrated need.
- Soft approaches unless demonstrated to be insufficient.
- Minimize size of structures.
- Minimize and mitigate for new impacts.
- Soft shoreline projects may extend waterward of ordinary high water.

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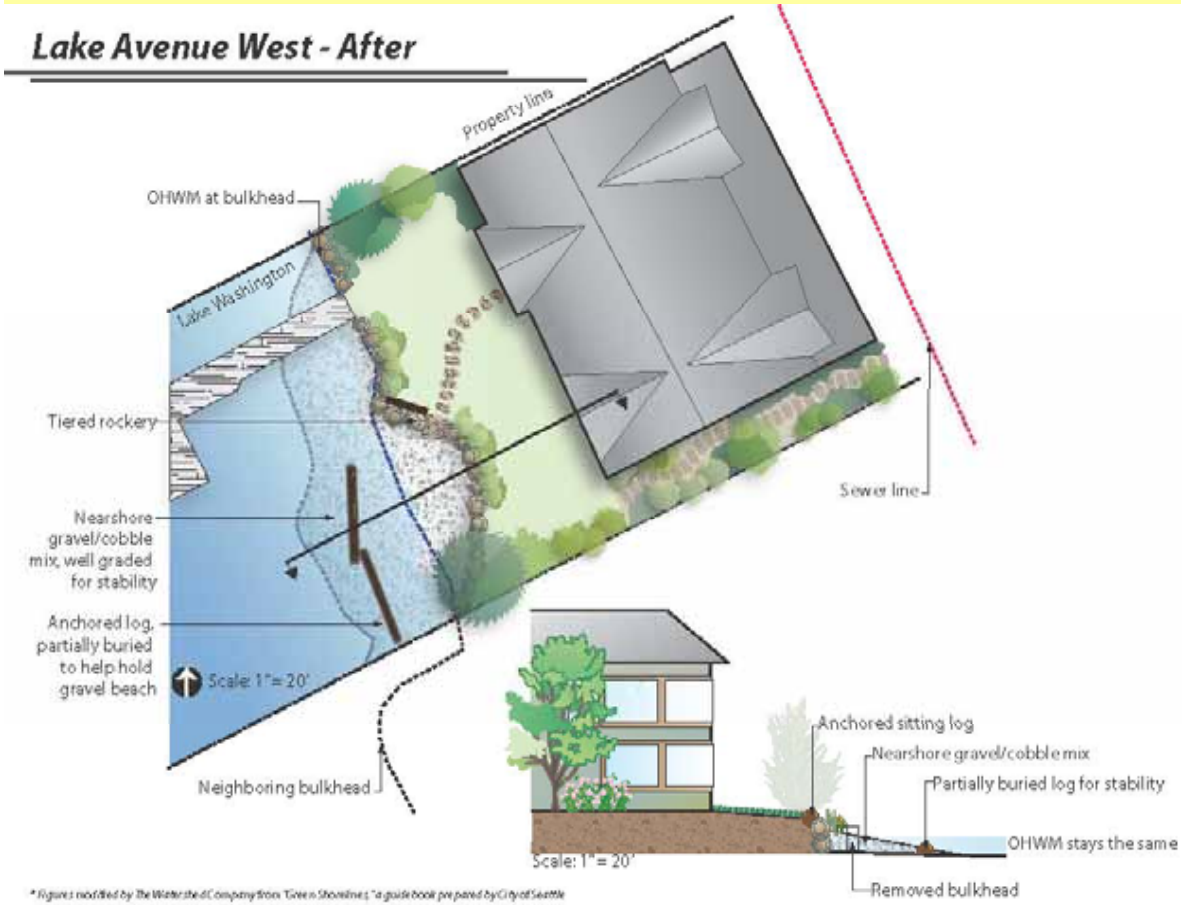
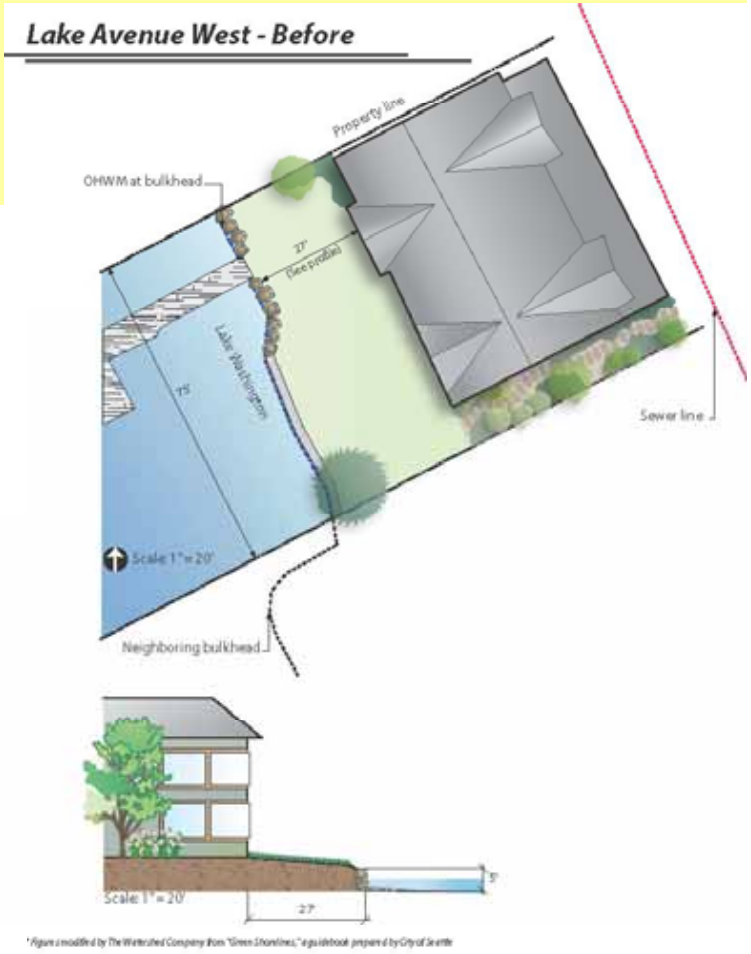
Shoreline Armoring Alternatives in Kirkland





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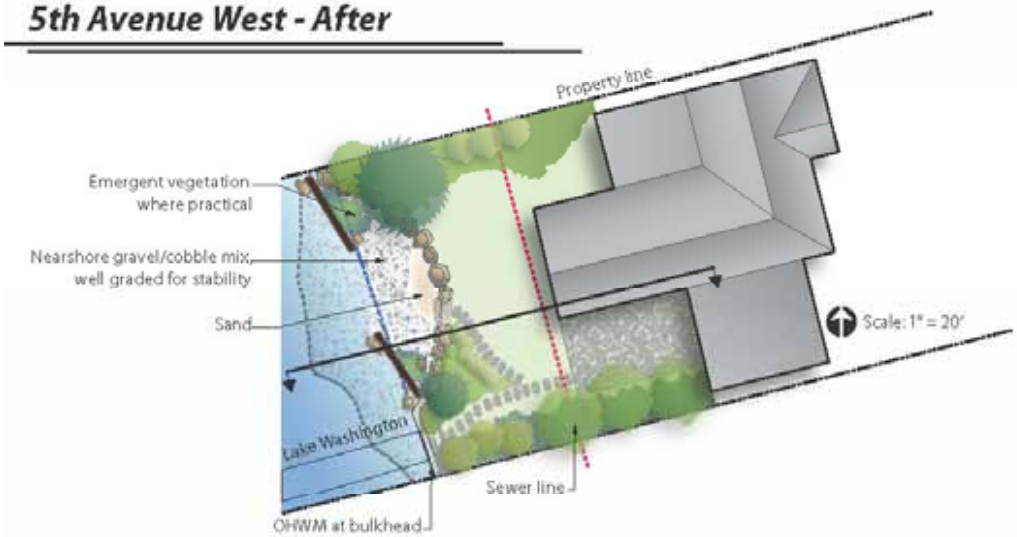
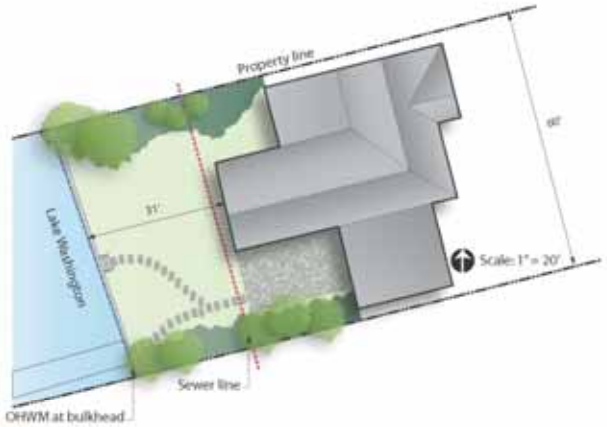
Shoreline Armoring Alternatives in Kirkland

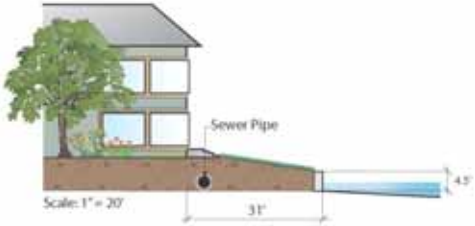
5th Avenue West - After



*Figures modified by The Watershed Company from "Green Shorelines," a guidebook prepared by City of Seattle

5th Avenue West - Before





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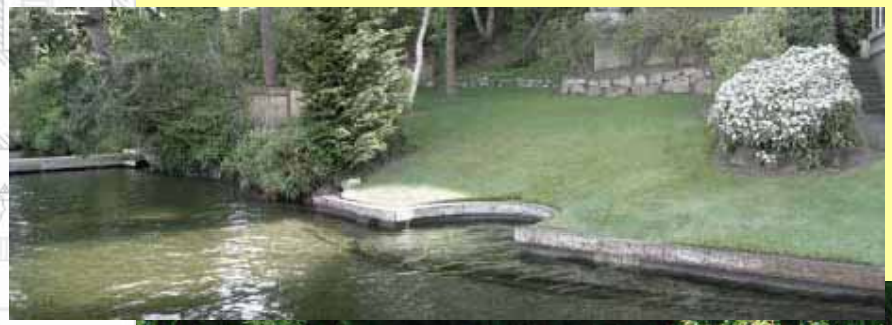
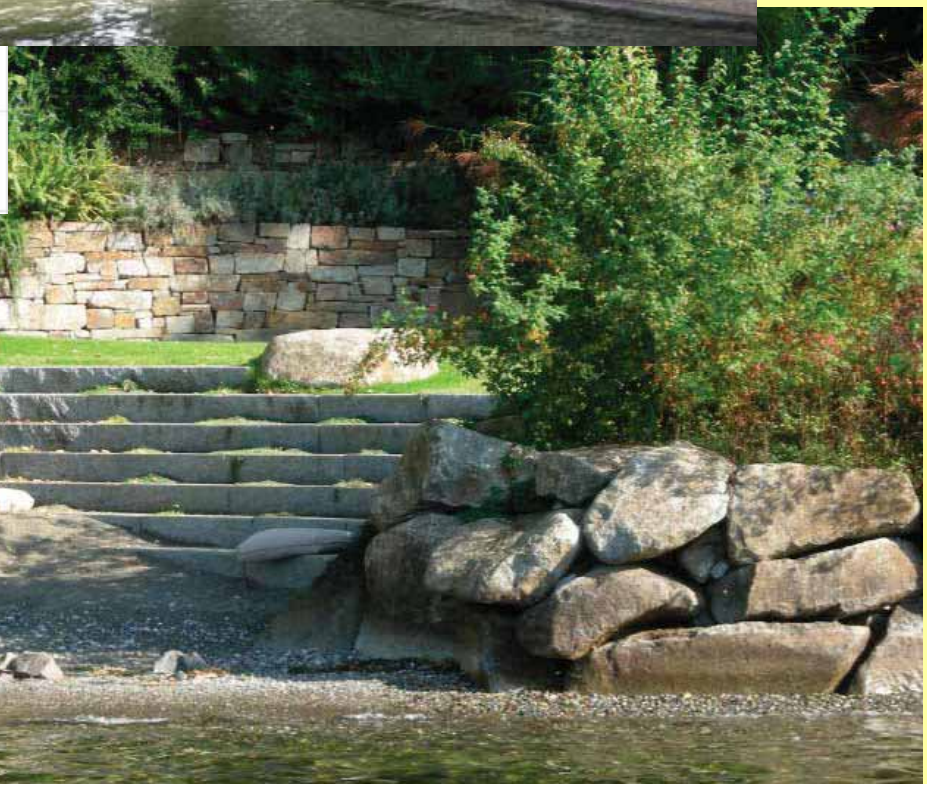
Before



After



Example of Shoreline Alternative Design in Bellevue, WA

Piers/Docks

General principles from the Guidelines

- Allow overwater coverage for water-dependent uses and public access
- Minimum size necessary for the proposed or existing use
- Design should avoid, minimize, or mitigate the impacts to ecological function
- Mitigation required to achieve “no net loss” of ecological functions (WAC 173-26-231(3)(b))

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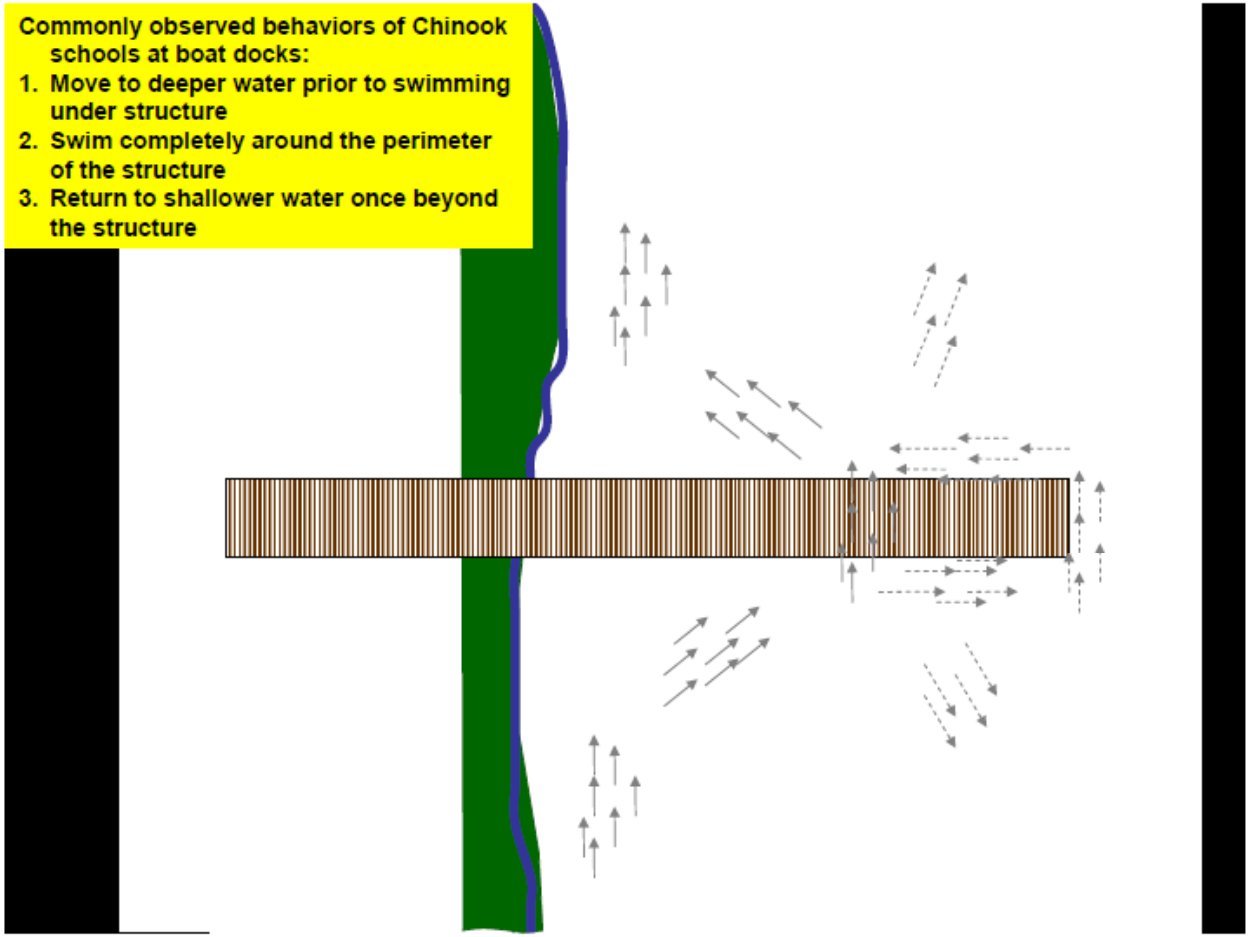
How do traditional piers impact salmon?

- Inhibit juvenile migration
- Sharp shade lines
- Shading inhibits aquatic vegetation
- Predator habitat (piles and cover)
- Nearshore habitat is compromised



Chinook Salmon Conservation Plan recommendations:

- Minimize overwater structures
- Support interagency development of pier specifications (RGP-3)
- Use of mesh surfaces/community docks

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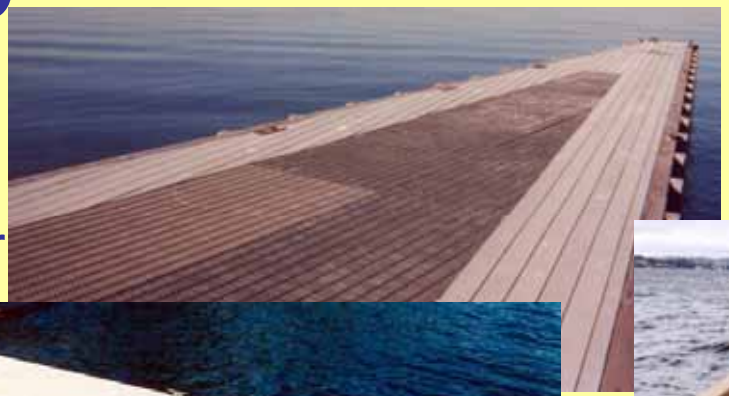
Pier Design Alternatives

- Width reduction
- Grated decking
- Increase height off water
- Extend ells to deeper water
- Elevated nearshore walkways
- Longer pile spans
- Reduce pile size and number



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Goals:

- Provide for recreational use along shoreline.
- Respond to new State requirements.
- Improve shoreline ecological functions.
- Enhance habitat for salmon.
- Provide consistency with state and federal permitting.

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Proposed Approach to Pier Standards:

- For new piers:
  - Be consistent with federal standards that allow for streamlined review (RGP-standards)
  - Provide flexibility to reach sufficient water depth
  - Respond to State guidelines to minimize size of structures
  - Minimize and mitigate for new impacts to extent feasible
- For replacement:
  - Be flexible to respond to alternatives that can be negotiated with federal agencies
- For enlargements:
  - Respond to State guidelines to minimize size of structures
  - Avoid, minimize and mitigate for new impacts to extent feasible
- For repairs:
  - Use newer materials that are designed to minimize impacts
  - Clarify what is a repair activity

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Implications of Key Changes to SMP:

- Stricter standards in response to State requirements
- Use of incentives, where possible, to initiate improvements in shoreline conditions
- Improved consistency with federal and state standards
- Improved habitat and water quality over time
- Enhance existing shoreline stewardship

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Clarifications:

- Requires balance of shoreline development with the preservation of shoreline ecology - interested in exploring different approaches that can meet these two objectives
- Changes apply to City property as well as private property
- City would like to set example
- Standards would apply when you are pursuing certain activities on your property, not retroactively

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ANY QUESTIONS?