

City of Renton

Shoreline Master Program

Planning Commission 12-10-08



Shoreline Management Act Overview

Washington's Shoreline Management Act (SMA)

was adopted by the public in a 1972 referendum

“to prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines.”

The SMA incorporates four broad policies:

- Encourage water-dependent uses
- Protect shoreline natural resources
- Promote public access
- Provide for restoration of ecological functions



Shoreline Management Act Overview

Shorelines in Renton

- Lake Washington
- Cedar River
- May Creek
- Green River/Black River
- Springbrook Creek
- Lake Desire



Renton Shoreline Master Program

Update Process

- Initial Public Involvement - May, June, 2008
- Assessment of Options - **Now** through Early 2009
- Draft Shoreline Master Program - Mid 2009
 - o Before Erika takes leave – through Feb – Policies
 - o After Erika returns – June through August - Regulations
- Review & Adoption – Sept to Dec 2009
- Ecology Review



Renton Shoreline Master Program

Update Process

- Assessment of Options - **Now** through Early 2009
 - Last meeting – overview of issues
 - **This meeting – Lake Washington – ecological issues**
 - Next meeting – other shorelines – ecological issues
 - Additional meetings – policy implications/options



Renton Shoreline Master Program

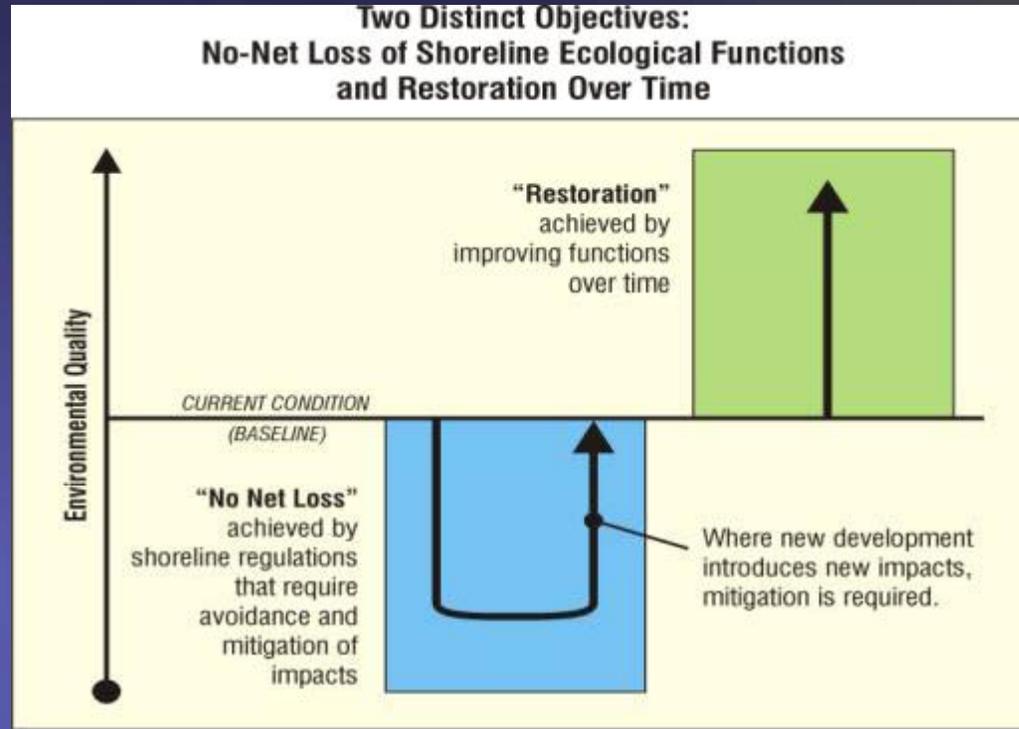
Information Resources

- Inventory/Characterization
- Tech Memo – Opportunities/Constraints Ecological Functions
- Tech Memo – Regulatory Options – Overview
- Tech Memo – Regulatory Options – Specific Issues
- Tech Memo – Public Access
- Tech Memo – Demand for Water Dependent Use



Renton Shoreline Master Program

No-net-loss of ecological functions



Renton Shoreline Master Program

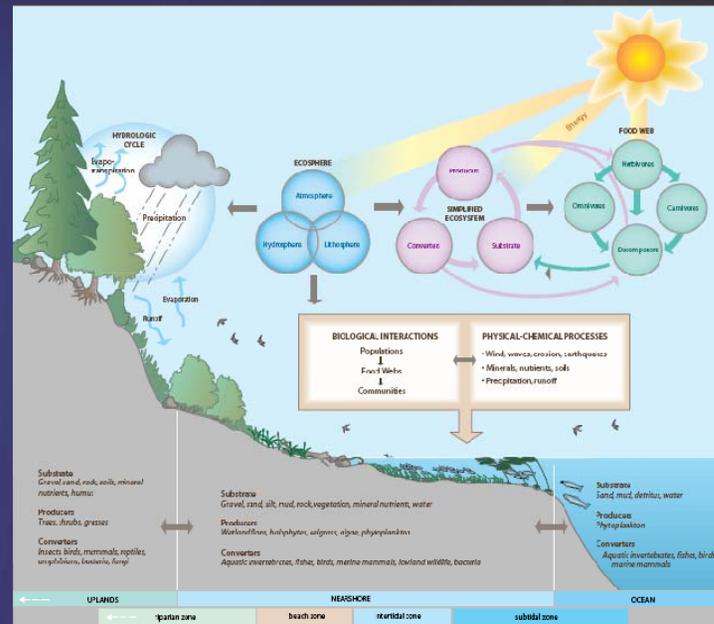
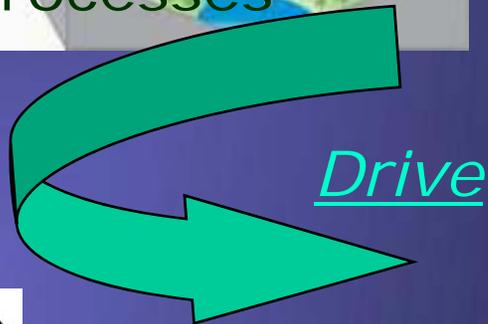
Inventory and Characterization

- Identify the ecosystem-wide processes and ecological functions
- Assess relationship to ecological functions present within the jurisdiction
- Identify specific measures necessary to protect and/or restore the ecological functions and ecosystem-wide processes



Renton Shoreline Master Program Inventory and Characterization

- Identify the ecosystem-wide processes and ecological functions



Shoreline
Functions



Renton Shoreline Master Program

Lake Washington

Shoreline of Statewide Significance

Additional set of criteria

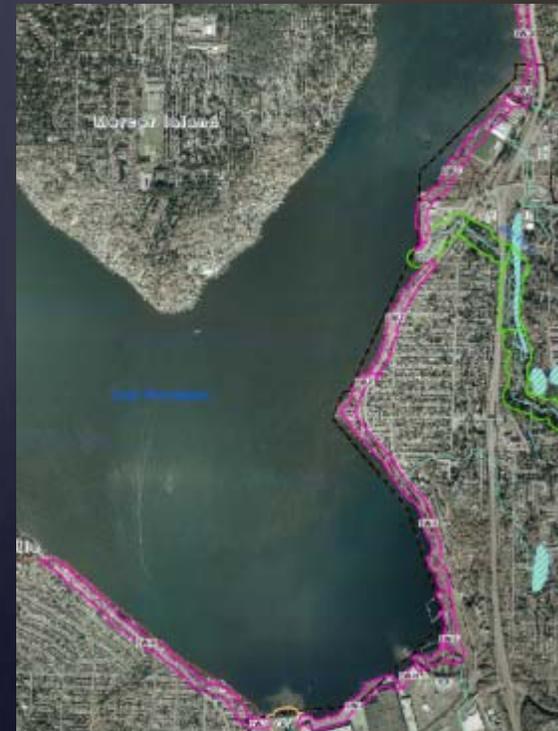
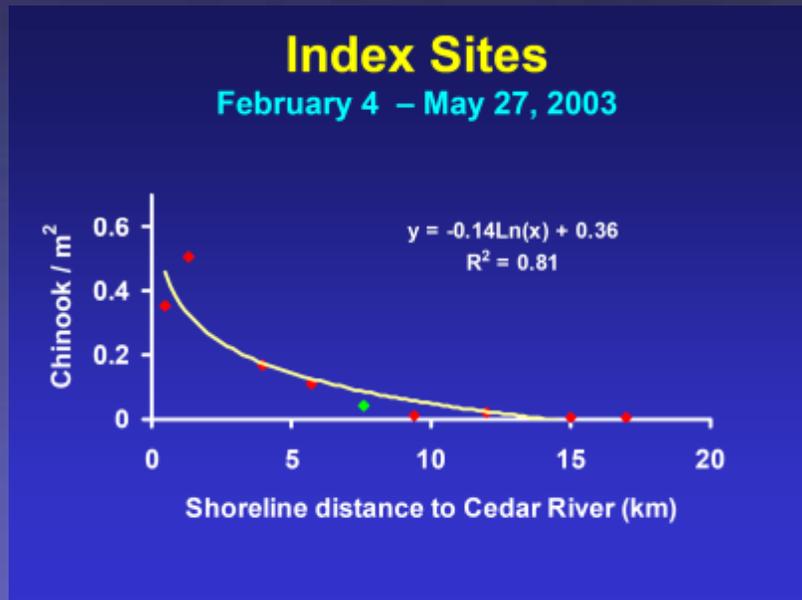
- Preserve the natural character of the shoreline
- Result in long term over short term benefit
- Recognize and protect the statewide interest over local interest
- Protect the resources and ecology of the shoreline
- Increase public access to publicly owned areas of the shorelines
- Increase recreational opportunities for the public in the shoreline
- Provide for any other element as defined in RCW 90.58.100 deemed appropriate or necessary



Renton Shoreline Master Program

Lake Washington

Chinook Salmon - Critical near-shore habitat

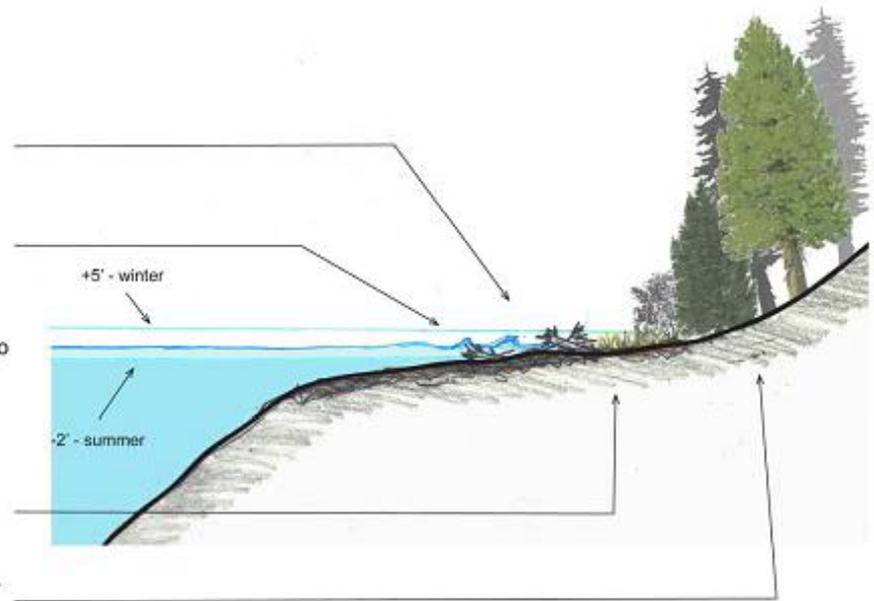


Renton Shoreline Master Program

Nearshore ecological functions

historic conditions (typical)

- shore as low gradient transition zone between the lake and dry land with some areas having actively eroding bluffs providing new beach sediment inputs
- waves up to 3' or more during less frequently recurring storms
- mean water level with upwards of 7' water fluctuation throughout year (typically up to +5' in winter storms, up to -2' in summer droughts)
- low gradient shore with gravel/sand substrate or emergent wetlands in low wave energy areas
- well vegetated wetland, riparian, and upland areas providing carbon inputs and woody debris similar habitat structure to an estuary



Renton Shoreline Master Program

Nearshore ecological functions

current conditions (typical)

- bulkheads and other 'hard' elements create a vertical boundary between land and water. The results:
no bluff erosion = no source of new beach sediment
hard edge = wave energy reflected into toe of slope
increasing erosion loss to deep water

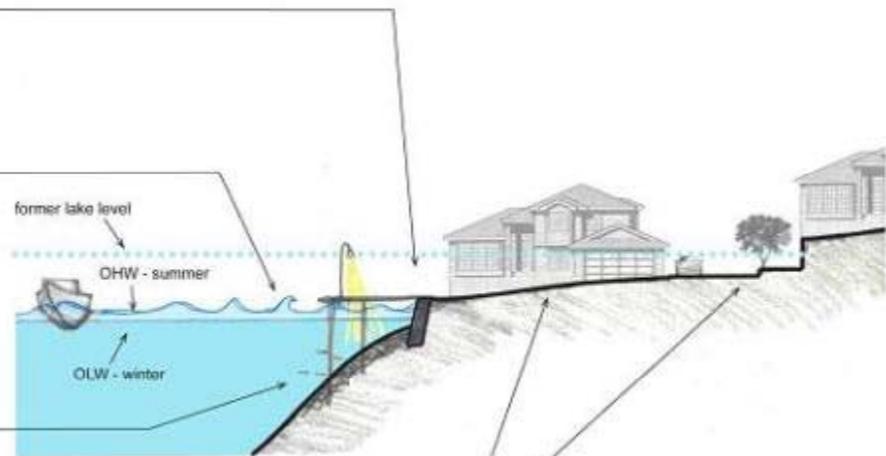
- lake level lowered in 1916 by ~9' exposing higher gradient and more erodible section of lake bottom to wave energy

- waves up to 4' or more during all times of the year, particularly on high boating days

- mean water level controlled to vary <1' during even the most intense storms, lake level lowered 1.9' during winter months

- over-water structures discourage salmonid use and providing cover and spawning habitat for introduced non-native predatory fishes

- native shore vegetation removed - mostly replaced by turf and non-native ornamentals



Renton Shoreline Master Program

Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

- Shallow habitat
- Native shoreline vegetation
- Woody debris:
- In-water structures



Renton Shoreline Master Program

Critical near-shore habitat



Renton Shoreline Master Program

Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

□ Shallow habitat

- Shallow shoreline depths (0 to 4 feet ordinary high water mark [OHWM]) with a gradual substrate slope (1:V to 4:H or shallower) Young salmon prefer this substrate during their early residence in Lake Washington (Tabor et al. 2006).
- Substrate composed of a mix of silt, sand, and gravel, and possible cobble size material at high wave energy locations. Young Chinook prefer sand and gravel substrates during their rearing in shallow water in Lake Washington.



Renton Shoreline Master Program

Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

- ❑ **Native shoreline vegetation overhanging shoreline edge:**
 - Provides shading and refuge habitat within the water for young salmon.
 - Riparian buffer vegetation provides fish prey (insects), Localized shading may reduce the increase in water temperature from solar radiation in shallow nearshore
 - Native vegetation limits the use of fertilizers and pesticides

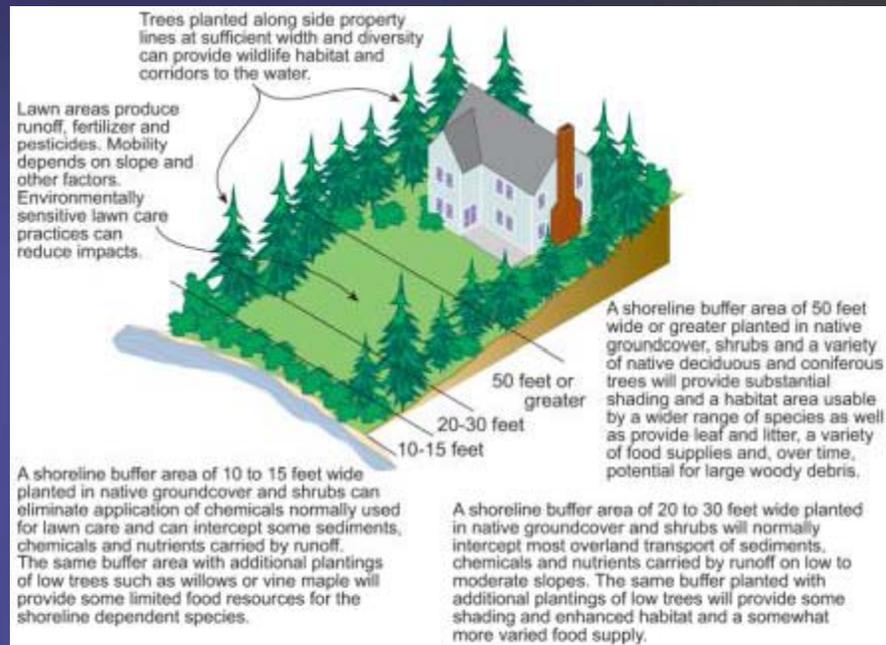


Renton Shoreline Master Program

Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

- Additional vegetation functions for upland habitat



Renton Shoreline Master Program

Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

Woody debris:

- Small woody debris at the shoreline, similar overhanging vegetation, provides refuge habitat for young salmon.



Renton Shoreline Master Program

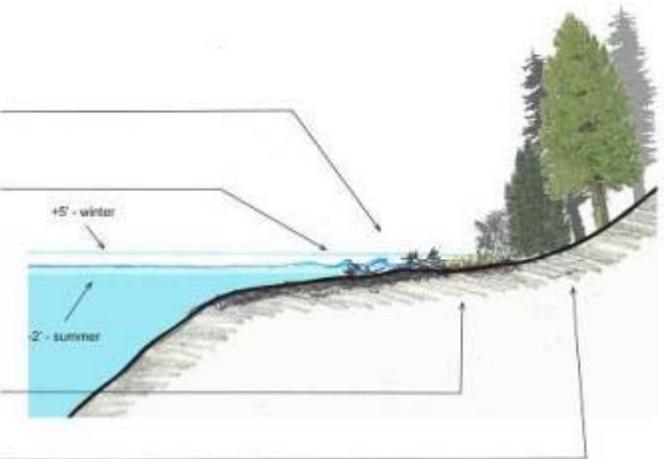
Nearshore ecological functions

Lake Shoreline physical attributes related to Chinook (and possibly other anadromous species):

- Shallow habitat
- Native shoreline vegetation
- Woody debris:
- In-water structures

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Renton Shoreline Master Program

Nearshore ecological functions

Shoreline Alteration

- Lake Level Lowering
- Vegetation Alteration
- Shoreline structure/geomorphology
- In-water structures



Renton Shoreline Master Program

Nearshore ecological functions

Shoreline Alteration

☐ Lake Level Lowering

- Eliminated shallow nearshore – became upland
- Natural processes, if not interrupted would
 - Re-establish vegetation
 - Shoreline structure/geomorphology
 - Sediment production
 - ✓ Stream deltas
 - ✓ Erosion of banks
 - Transport mechanisms and
 - Depositional environment



Renton Shoreline Master Program

Nearshore ecological functions

□ Vegetation alteration

- Commercial – Industrial
 - 50% to 70% building
 - 70% to 100% impervious
 - Ornamental vegetation
- Multi-family
 - 50% to 70% building
 - 60% to 90% impervious
 - Lawn and ornamental vegetation
- Single Family
 - 35% building
 - 50% to 70% impervious
 - Lawn and ornamental vegetation



Renton Shoreline Master Program

Nearshore ecological functions

☐ Shoreline structure/geomorphology

- Fill into lake
- Interruption of sediment source
 - Stream deltas - dredging
 - Bank erosion - armoring
- Transport – barriers
- Deposition
 - Dredging – removal
 - Armoring – high energy waved environment results in deeper lake deposition



Renton Shoreline Master Program

Nearshore ecological functions

- ❑ Changes in shoreline structure/geomorphology
- ❑ Vegetation alteration
- ❑ Over water structures

current conditions (typical)

- bulkheads and other 'hard' elements create a vertical boundary between land and water. The results:
no bluff erosion = no source of new beach sediment
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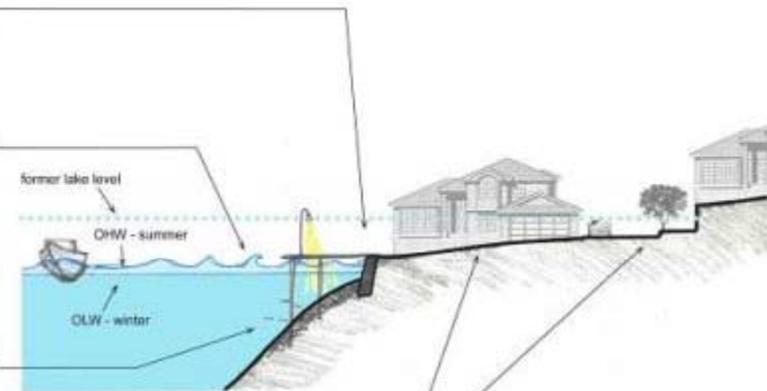
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- over-water structures discourage salmonid use and providing cover and spawning habitat for introduced non-native predatory fishes

- native shore vegetation removed - mostly replaced by turf and non-native ornamentals



Renton Shoreline Master Program

Nearshore ecological functions

- ❑ In-water structures (docks, boat houses, etc.)
 - Habitat for predators (largely bass)
 - Interruption of movement along the shore
 - Related clearance of small woody debris
 - Related human activity



Renton Shoreline Master Program

No Net Loss

Cumulative Impacts WAC 173-26-186

Evaluation of cumulative impacts should consider:

- Current circumstances affecting the shorelines and relevant natural processes;
- Reasonably foreseeable future development and use of the shoreline; and
- Beneficial effects of any established regulatory programs under other local, state, and federal laws.



Renton Shoreline Master Program

No Net Loss

Cumulative Impacts WAC 173-26-186

- Current circumstances affecting the shorelines and relevant natural processes;
 - Ongoing impacts of existing development
 - Interruption of geomorphic processes of deposition
 - Lack of shoreline vegetation functions
 - In-water structures
 - Existing impacts/processes that may be modified
 - Dredging
 - Shoreline modification
 - Shoreline Vegetation
 - Number, size and design of in-water structures



Renton Shoreline Master Program

No Net Loss

Cumulative Impacts WAC 173-26-186

□ Reasonably foreseeable future development and use of the shoreline

○ **More intense development**

- Larger houses
- More impervious surface
- Larger commercial/multi-family buildings

○ **Change in type of uses**

- Commercial mixed use
- Marinas
- Possible change in industrial uses on shoreline
- Possible change in transportation use



Renton Shoreline Master Program

No Net Loss

Cumulative Impacts WAC 173-26-186

- Reasonably foreseeable future development and use of the shoreline
 - More intense development
 - Larger houses
 - More impervious surface
 - Larger commercial/multi-family buildings
 - Change in type of uses
 - Commercial mixed use
 - Marinas
 - Possible change in industrial uses on shoreline
 - Possible change in transportation use



Renton Shoreline Master Program

No Net Loss

Cumulative Impacts WAC 173-26-186

- Beneficial effects of any established regulatory programs under other local, state, and federal laws.
 - o Salmon recovery programs
 - o Corps of Engineers 404 permits
 - o ESA requirements
 - o This Shoreline Master Program



Renton Shoreline Master Program

No Net Loss

Fairly Allocate the Burden of Addressing Cumulative Impacts

- ❑ Regulations may include mitigation for both individual and cumulative impacts
- ❑ Cumulative impacts addressed by other programs
 - Identify the specific areas and actions where mitigation is most effective
 - Funding for mitigation
 - from general funds or
 - included in a mitigation fee system collected at the time permits are issued, or
 - implemented through other fees such as stormwater management fees.



Renton Shoreline Master Program

No Net Loss

Fairly Allocate the Burden of Addressing Cumulative Impacts

Lake Washington Land Uses – Renton UGA (PAA)

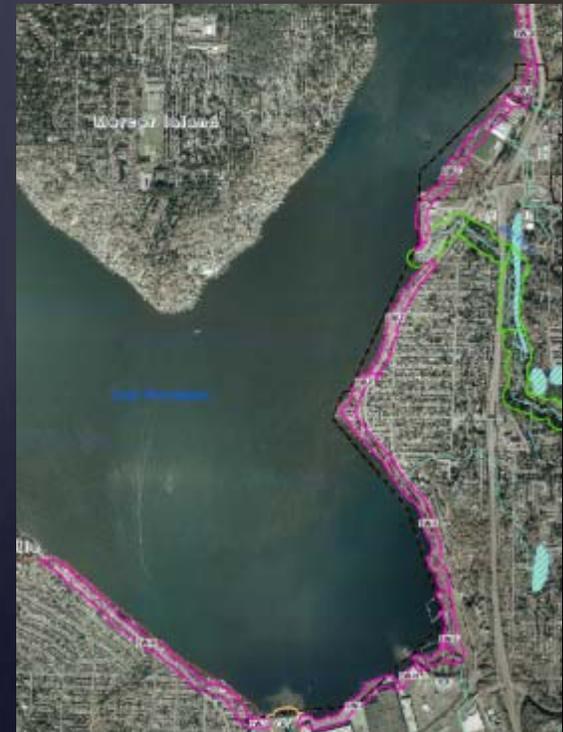
- Single-family residential use
- Public recreation use
- Industrial use
- DNR managed public aquatic lands
- Multi-family residential use
- Mixed Use - Commercial use



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

Lake Washington *By Reach*

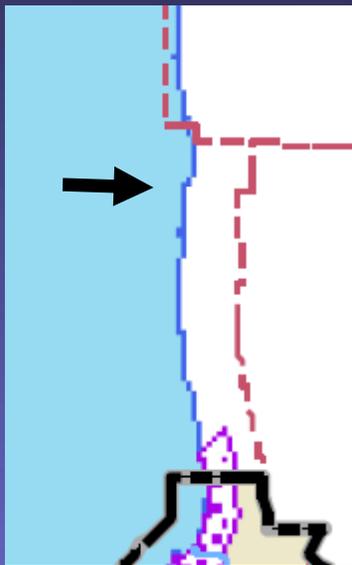


Parametrix

Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

*Lake Washington **Reach A***



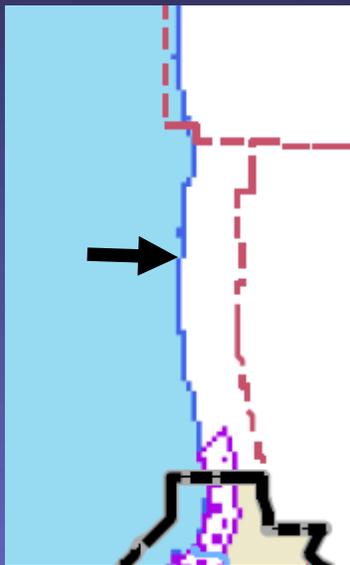
Start Renton SMP

Parametrix

Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

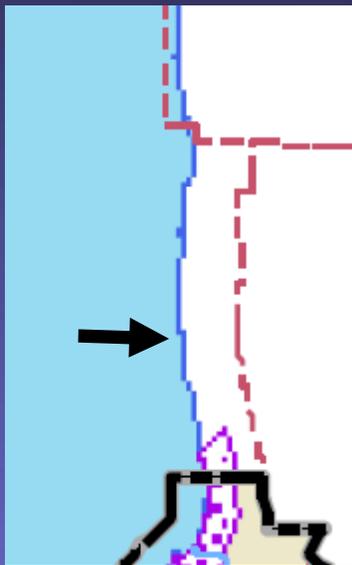
*Lake Washington **Reach A***



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

*Lake Washington **Reach A***



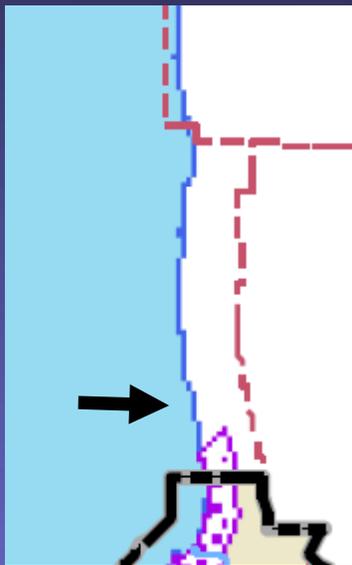
Culverted outfall



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

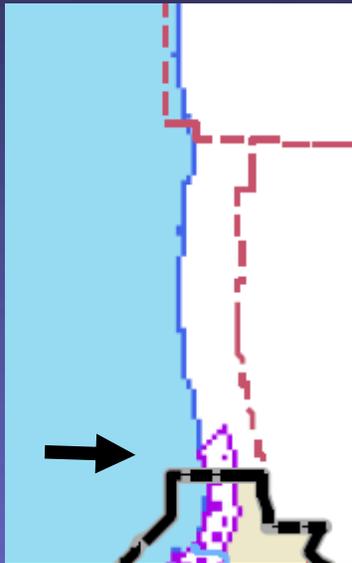
*Lake Washington **Reach A***



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

Lake Washington Reach A & B



Current Renton City Limits

Parametrix

Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington Reach A Summary:

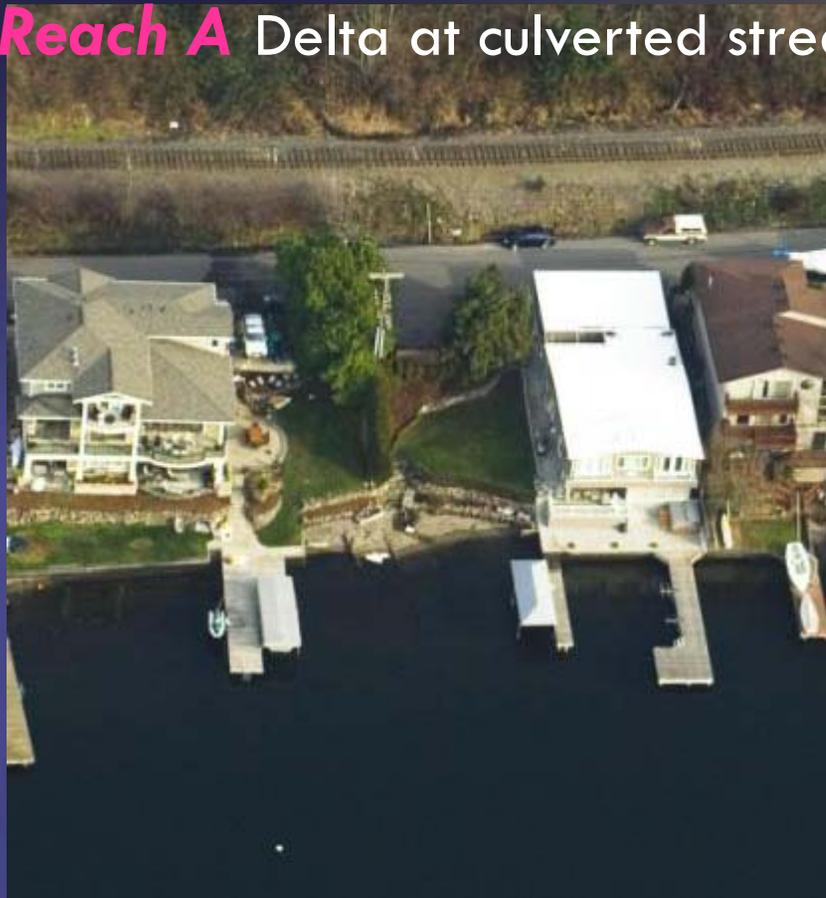
- Single family land use
- Almost entirely bulkheaded
- Some nearshore shallow habitat
 - Below bulkheads
 - Delta at culverted stream
- Little or no native riparian vegetation
- Docks-instream structures relatively small in scale



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington Reach A Delta at culverted stream



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington *Reach A* **Potential actions:**

- Replace bulkheads with softer armor
- Add substrate to nearshore
- Enhance shoreline native vegetation
- Replace docks as they deteriorate with
 - Smaller width in nearshore areas
 - Grated for light passage
- Address runoff through maximum impervious surface/treatment



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
Maintaining and Enhancing Ecological Productivity

*Lake Washington **Reach B***



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington *Reach B* Summary:

- Single family and Multi-family land use
- Almost entirely bulkheaded – some above OHWM
- Extensive nearshore shallow habitat
 - Below bulkheads
 - Delta at open stream
- Little or no native riparian vegetation
- Docks-instream structures - scale varies

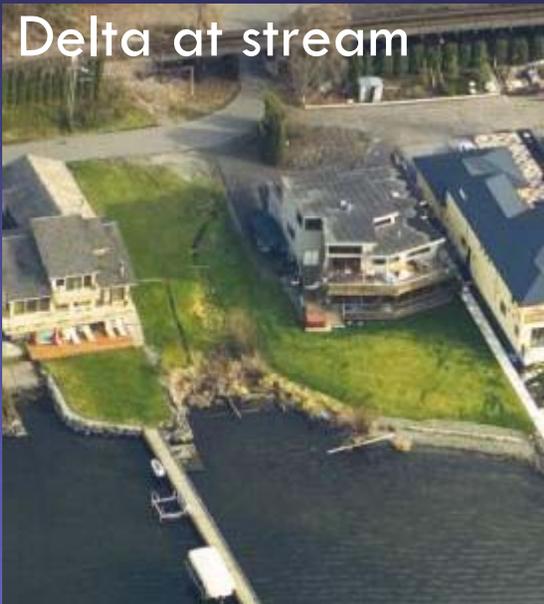


Renton Shoreline Master Program

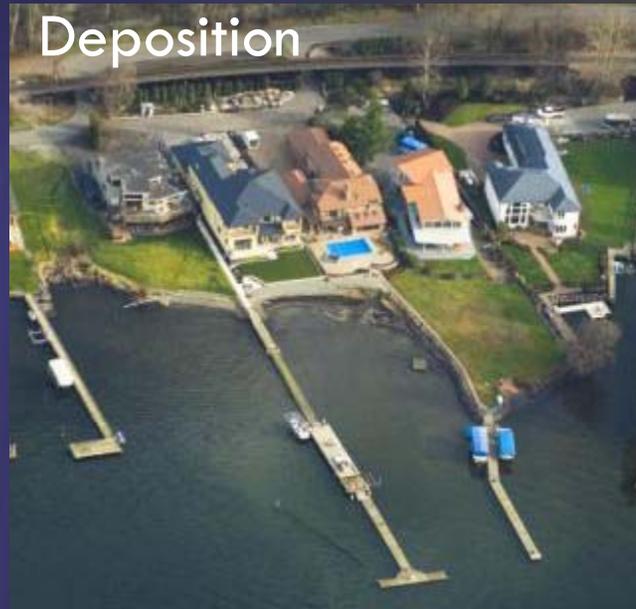
Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington *Reach B*

Delta at stream



Deposition



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

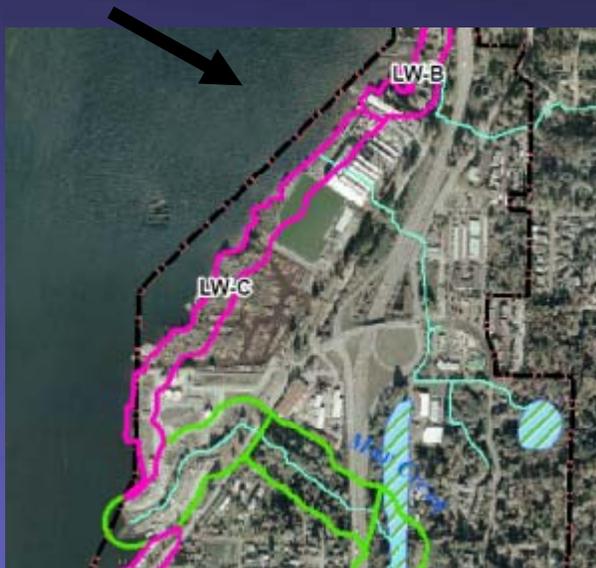
Lake Washington *Reach B* **Potential actions:**

- Replace bulkheads with softer armor – extensive areas are protected from wave action and don't need bulkheads
- Add substrate to nearshore, or allow normal deposition to continue
- Enhance shoreline native vegetation
- Replace docks as they deteriorate with
 - Smaller
 - Grated for light passage
- Address runoff through maximum impervious surface and/or treatment



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach C



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach C



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach C*



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach C



Renton Shoreline Master Program

**No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach C***



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach C*



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach C*



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach C* Summary:

- Seahawks, vacant and single family land use
 - Future re-development potential Seahawks far future
 - Unknown parameters for Quendall Terminals Superfund cleanup (Assessment available in late 2009, early 2010)
- Extensive nearshore shallow habitat
 - Past dredging at Barbee sawmill
 - Delta at open stream
- Native riparian vegetation
 - Some restoration at Seahawks site
 - Unknown effects of Quendall terminals cleanup
 - Restoration of 35' shoreline strip at Barbee Mill subdivision
- One new dock, likely additional shared dock at Barbee



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach C* **Potential actions:**

- Preserve delta formation processes at May Creek – prohibit dredging
- Shoreline restoration (Quendall Terminals)
 - Nearshore substrate
 - Riparian vegetation
- Limit future in-water facilities (Quendall Terminals redevelopment)
 - Locate away from delta areas
 - Avoid/protect near-shore areas
- Address runoff water quality (Quendall Terminals)



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D*



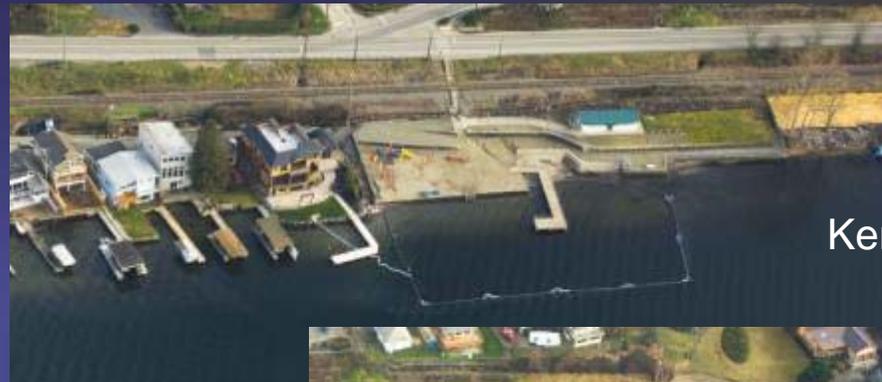
Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D*



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach D



Kennydale Park



RR land 100'

Parametrix



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D & E*

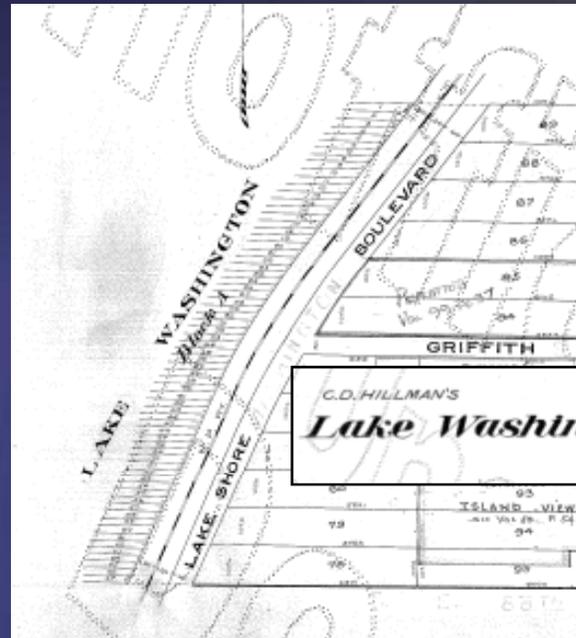
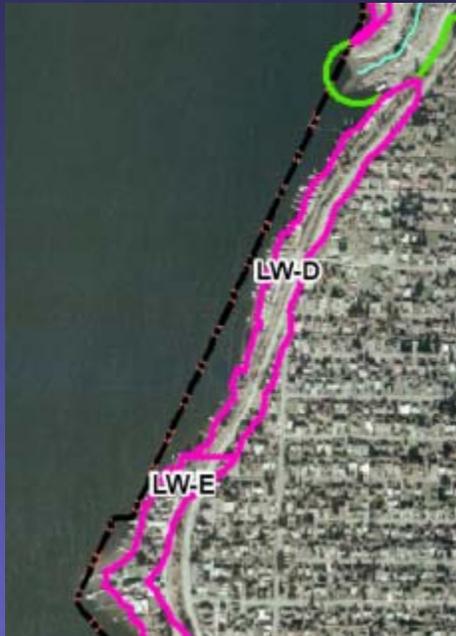


Reach D / Reach E



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D*



1904



Parametrix

Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D* Summary:

- Single family land use
 - Small lots
 - Some not developed
- Renton Kenneydale Park
- Some lots not bulkheaded
- Some nearshore shallow habitat
 - Below bulkheads
 - Delta at May Creek
- Little or no native riparian vegetation
- Docks-instream structures relatively small in scale



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach D*

May Creek delta

- Extensively dredged in the past for sawmill log storage
- Likely to have extensive deposition in future
- Very productive nearshore habitat
- Implications for existing docks and future moorage



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach D*

Potential actions:

- Allow May Creek delta natural deposition
- Add substrate to nearshore
- Soft shoreline armor
- Enhance shoreline native vegetation
- Replace docks as they deteriorate with
 - Smaller width in nearshore areas
 - Grated for light passage
- Address runoff through maximum impervious surface and/or treatment



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach E



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach E



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach E



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach E* Summary:

- Single family land use - Larger, deeper lots
- Some soft armoring (v. traditional bulkheads)
- Nearshore shallow habitat near point
- Little or no native riparian vegetation
- Docks-instream structures relatively small in scale



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach E* Soft armoring



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington *Reach E* Soft armoring



Renton Shoreline Master Program

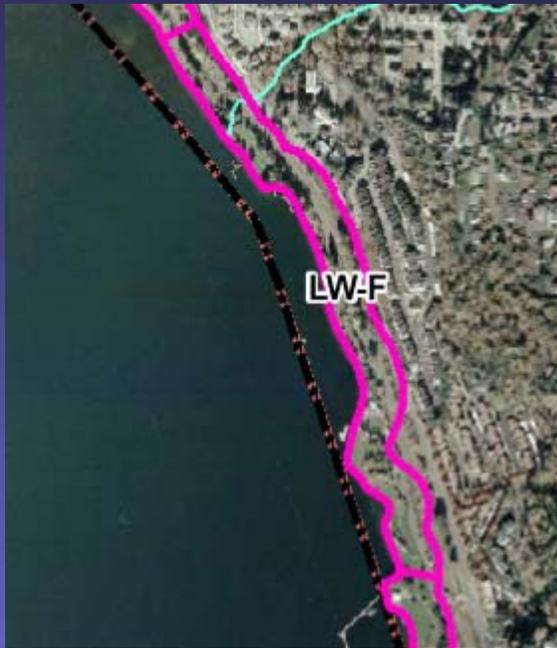
Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach E* **Potential actions:**

- Larger lots provide more options for setbacks/buffers
- Soft shoreline armor
- Enhance shoreline native vegetation
- Replace docks as they deteriorate with
 - Smaller width in nearshore areas
 - Grated for light passage
- Address runoff through maximum impervious surface/treatment



Renton Shoreline Master Program

**No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach F* Gene Coulon Park - North**



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach F* Summary:

- Northerly part of Gene Coulon Park – relatively low level of development
- Shoreline relatively natural (former bulkheads have deteriorated in most areas, riprap south of aquatic center)
- Nearshore shallow habitat throughout
- Delta at Kenneydale Creek
- Native riparian vegetation variable
- Docks-instream structures relatively small in scale



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach F* Delta at Kennydale Creek

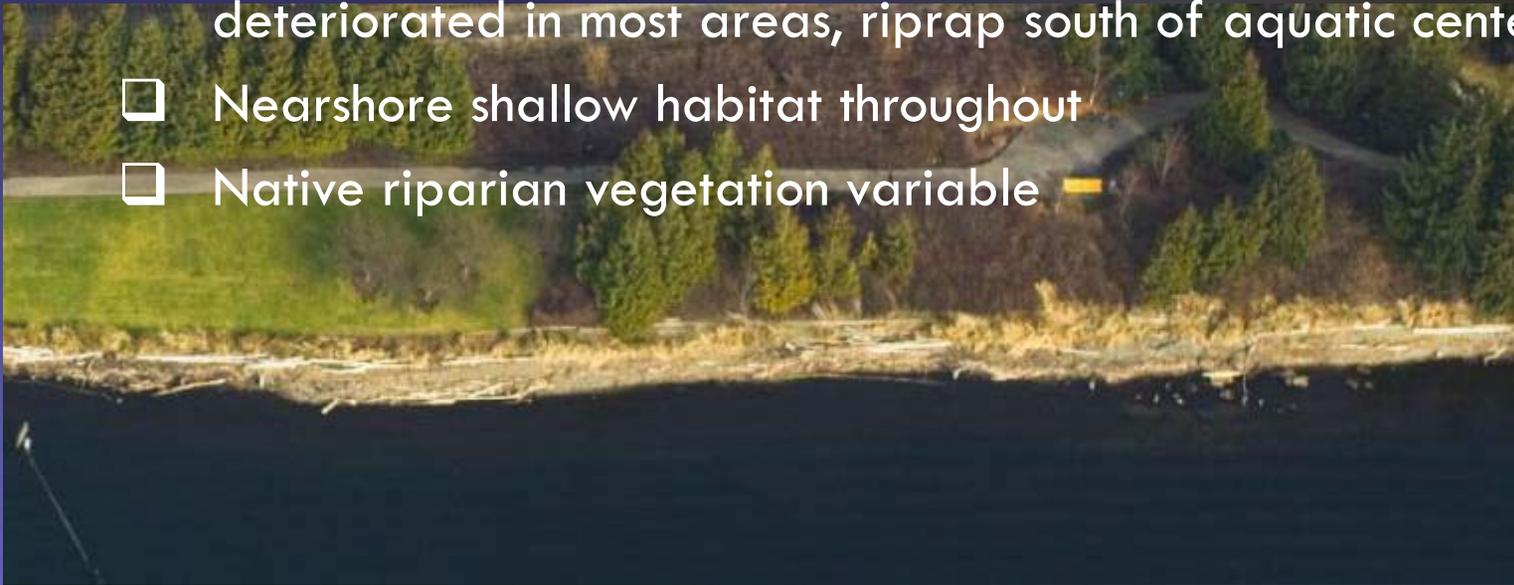


Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington *Reach F* Summary:

- ❑ Shoreline relatively natural (former bulkheads have deteriorated in most areas, riprap south of aquatic center)
- ❑ Nearshore shallow habitat throughout
- ❑ Native riparian vegetation variable



Renton Shoreline Master Program

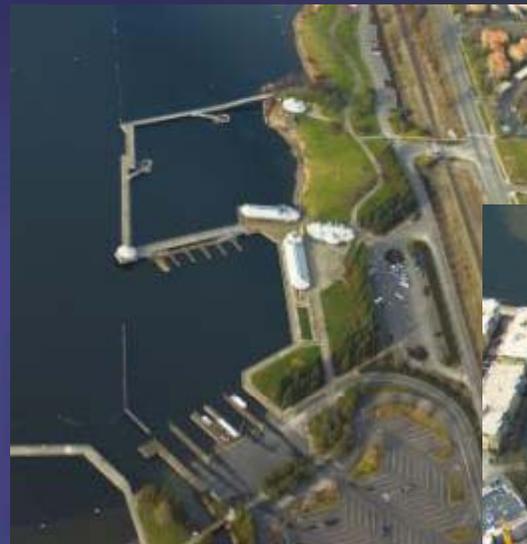
Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach F Potential actions:*

- Maintain natural shoreline gradient
- Enhance shoreline native vegetation (tradeoffs relate to the design goals of the park in providing areas for
 - Lawn area for active uses and picnicking
 - Physical access to the shoreline
 - Visual access to the shoreline.Additional native trees could be provided that would allow
 - Substantial lawn areas
 - Framed views of the water from upland portions of the park
 - Physical access to less sensitive areas
- Vegetation maintenance to control fertilizers & other chemicals



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach G* Gene Coulon Park - South



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach G* Summary:

- Southerly part of Gene Coulon Park – Higher level of development
- Shoreline alteration varies
- Nearshore shallow habitat throughout (even at boat launch and beach)
- Delta at Johns Creek
- Little native riparian vegetation
- Extensive in-water structures



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach F* Delta at Johns Creek



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach G Potential actions:*

- Manage park for multiple use, keeping aquatic habitat in the mix of considerations
- Maintain shoreline gradient
- Enhance shoreline native vegetation in limited areas
- Johns Creek delta actions
- Vegetation maintenance to control fertilizers & other chemicals



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington Reach H



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach H* Summary:

- Urban Center North – 2 Zoning - Mixed Use Former Shuffleton Steam Plant
 - First Phase Multi-Family Residential
 - Planned future phases mixed use
- Nearshore shallow habitat to the north and south
- Hard armored shoreline, no native riparian vegetation
- Potential for future water oriented moorage



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach H Potential actions*

- ❑ Some opportunities for ecological enhancements (may be required for non-water dependent mixed uses- consider trade-offs with public access)
- ❑ Any future moorage will be scrutinized closely for potential barrier effects on salmonid migration



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach I*



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach I*



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach I*



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach I* Summary:

- Boeing and Public Aquatics Lands (DNR Managed)
- Urban Center North – 2 Zoning - Mixed Use
- Former Shuffleton Steam Plant outfall armored channel
- Nearshore shallow habitat adjacent to part of DNR
- Nearshore shallow habitat adjacent to Cedar River delta
- Hard armored shoreline on Boeing frontage
- Limited to no native riparian vegetation



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach I Potential actions:*

- Public aquatic lands
 - Remove Shuffleton outfall
 - Enhance nearshore
 - Provide riparian vegetation (provision for wing overhang for Boeing airplanes)
- Allow Cedar River delta formation to continue
- Long term future opportunities at Boeing plant



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach J* Municipal Airport



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Lake Washington Reach J Summary:

- Use - Renton Municipal Airport
- Seaplane dock is a water dependent use
- Nearshore shallow habitat adjacent to Cedar River delta
- Hard armored shoreline on Airport frontage
- Limited to no native riparian vegetation (aviation safety issues primarily related to bird roosting, height is secondary)



Renton Shoreline Master Program

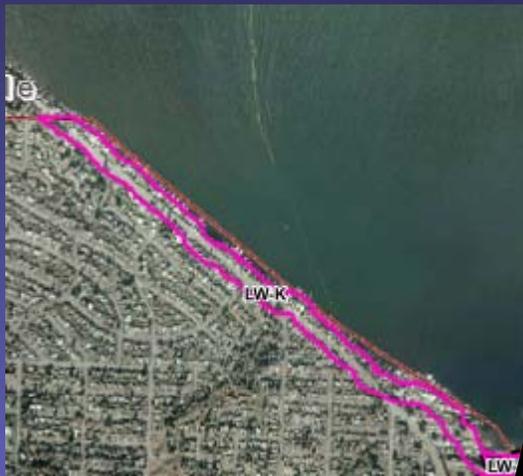
Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach J Potential actions:*

- Allow Cedar River delta formation to continue (some dredging proposed for relocated seaplane dock, but it also is being relocated to require less dredging)
- Some opportunity for riparian vegetation, if it is maintained at a low level and limited diameter (would require long-term maintenance by the airport)
- Redevelopment potential only in Boeing operations ceased



Renton Shoreline Master Program

**No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach K***

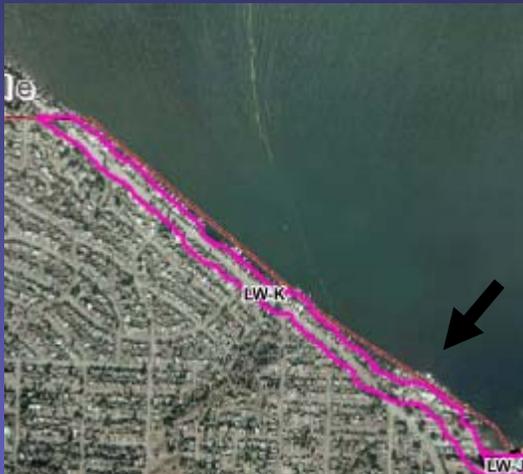


Current Renton City Limits



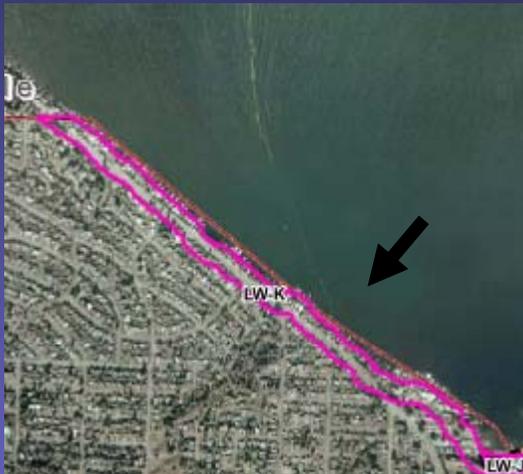
Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach K*



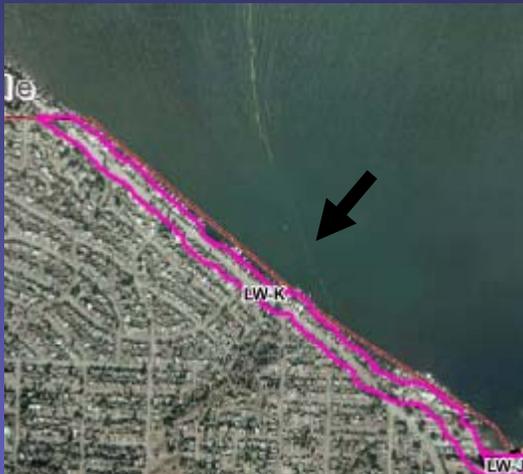
Renton Shoreline Master Program

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Lake Washington *Reach K***



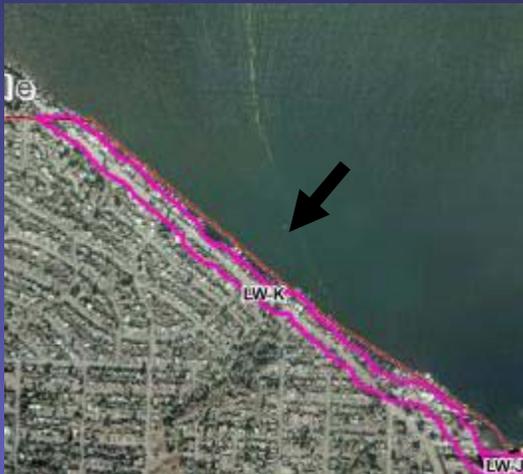
Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach K*



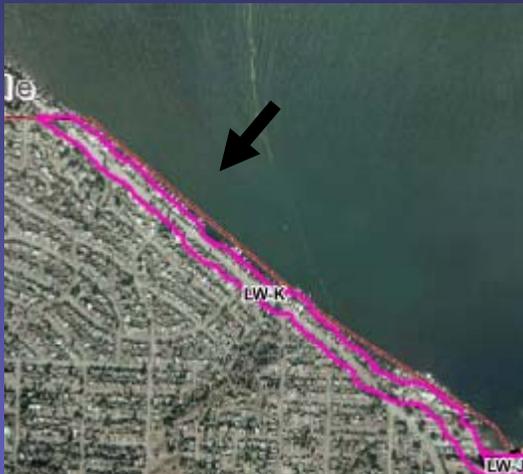
Renton Shoreline Master Program

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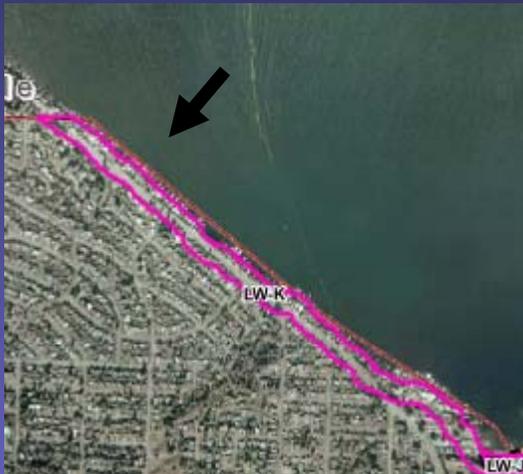
Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity *Lake Washington Reach K*



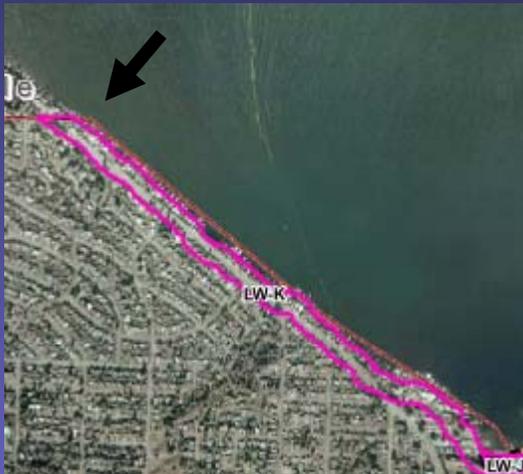
Renton Shoreline Master Program

**No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach K***



Renton Shoreline Master Program

**No Net Loss Opportunities and Constraints
for Maintaining and Enhancing Ecological Productivity
Lake Washington *Reach K***



Current Seattle City Limits



Parametrix

Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach K* Summary:

- Multi-family land use first 540 feet
- Balance - single family land use
- Almost entirely bulkheaded
- Some nearshore shallow habitat, below bulkheads
- Little or no native riparian vegetation
- Docks-instream structures
 - relatively larger in scale than east shoreline
 - More covered moorage



Renton Shoreline Master Program

Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity Lake Washington *Reach K Potential actions:*

- Replace bulkheads with softer armor
- Add substrate to nearshore
- Enhance shoreline native vegetation
- Replace docks as they deteriorate with
 - Smaller width in nearshore areas
 - Grated for light passage
- Address runoff through maximum impervious surface and/or treatment requirements



Renton Shoreline Master Program

No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Policy Issues

- Water dependent uses
- Public access
- Environment designations
- Provisions for existing development
- Development standards
 - Setbacks/Buffers
 - Shoreline Vegetation
 - Building Height
 - Shoreline Protection
 - In-water structures/docks



Shoreline Management Act Overview

Next Meeting - No Net Loss Opportunities and Constraints for Maintaining and Enhancing Ecological Productivity

Other Shorelines in Renton

- Cedar River
- May Creek
- Green River/Black River
- Springbrook Creek
- Lake Desire

