



SHORELINE MASTER PROGRAM UPDATE



Shoreline Master Program Regulations

October 9, 2008



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Agenda

- Overview changes
- Discuss topics & provide staff with policy direction on key issues
 - Remaining General Regulations
 - Shoreline Modifications
 - Shoreline Uses



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9/11 PC Meeting:

- Shoreline Environment Name Changes (Residential – and Residential – M/H)
- Map changes in response to PC recommendations (pg. 21-24)
- Definition changes
 - Preserve (pg. 29)
 - Substantial Development (pg. 31-32)
 - Land surface modification (pg. 28)
 - Ordinary high water mark (pg. 29)
 - Added relevant wetland and stream regulations
- Use Table
 - Public floatplane operations (pg. 40)
 - Public Park Improvements (pg. 39)
 - Detached dwelling unit in UC (pg. 39)
- Wetlands and Streams
 - Added Reasonable Use Provisions (pg. 47 and 58)
 - Added reference to King County BAS information (pg. 45)



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Tree Removal Standards (9/11 Memo, pg. 24):

- Existing provisions = potential loss of shoreline vegetation
 - Allows 2 trees to be removed per calendar year
- Staff Recommendation: Limit removal of existing trees in shoreline setback, except for hazardous trees. Provide standards for pruning.



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Removal of Aquatic Vegetation (9/11 Memo, pg. 26-27):

– Approach 1:

- **Prohibit all removal of aquatic vegetation, except where it threatens water-dependent use or fish and wildlife habitat.**
- **Require an aquatic weed management program**

– Approach 2: **Allow all proposed removal of invasive aquatic vegetation.** Normal maintenance.

Staff Recommendation: Approach 1.



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Water Quality, Stormwater and Nonpoint Pollution: (see 9/11 memo Attachment 23, pg. 255-256)

- Key Issues: Standards addressing application of pesticides, herbicides, and fertilizers within the shoreline area.
- Proposed Requirements:
 - **References to requirements in City's adopted surface water design manual.**
 - Requirements for the use of **Best Management Practices (BMPs)**.
 - Emphasis on use of **low-impact development techniques**.
 - **Limitations on new outfalls** to Lake Washington.
 - Restrictions or limitations on the use of **pesticides, herbicides, and fertilizers** within the shoreline



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Upland application of fertilizers, pesticides, and herbicides (9/11 Memo, pg. 28-29 & 10/9 Memo, pg. 5-6 and public comments):

- Approach 1: **Restrict use of pesticides, herbicides, or certain fertilizers** within the shoreline setback.
- Approach 2: **Provide standards for application**:
 - Limitations on aerial spraying,
 - Spot application or wicking,
 - Time-release fertilizers and herbicides,
 - Compliance with federal and state standards.
- Approach 3: Require compliance with state and federal laws & focus on **education and technical assistance** to encourage voluntary use of natural yard care practices.
- Staff recommendation (preliminary): Approach 1



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Aquatic application of herbicides (9/11 Memo, pg. 29-30):

- Approach 1: **Defer to the existing State regulations**
- Approach 2: **Prohibit the use of herbicides to control aquatic vegetation except where no reasonable alternative exists**
- Approach 3: **Require submittal of a plan for City review & approval**

Staff recommendation (preliminary): Approach



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View Corridors (9/11 Memo, Attachment 25, pg. 259-260):

- Key Issues: Defining **what public view** these regulations should be trying to protect:
 - The view to the ordinary high water mark/shoreline edge & Lake Washington, or
 - The view to a portion of Lake Washington, but not necessarily to the shoreline edge.
- Proposed Regulations: Existing provisions continue, with the following minor changes:
 - View corridor requirements **do not apply within JBD and CBD**
 - Clarifications on permitted **encroachments** within the view corridor
 - Appropriate **placement** for the view corridor
 - **Dedication** for the view corridor



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Observations of existing view corridors:

- Grade, parcel depth & existing vegetation & improvements are factors in determining how much of the Lake and shoreline can be seen
- Vegetation, fencing (even open wire), view platforms, structured parking, retaining walls, trellis/arbors, and other garden features minimize view
- Potential conflict between shoreline vegetation & protecting view corridors



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Approximately upper 1/3 Lake visible as well as opposite shoreline

Approximately upper 2/3 Lake visible as well as opposite shoreline





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Most of Lake could be visible, if not blocked by vegetation



Most of Lake and shoreline water-dependent uses are visible





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Most of Lake visible, with some vegetation in field of vision



Most of Lake could be visible, with overhanging vegetation





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Covered moorage located in view corridor. Existing deciduous trees at shoreline edge in view corridor (SW corner)



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Examples of shoreline restoration projects where view preservation was incorporated into design.



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- **Existing view corridor provisions:**
 - Within the view corridor, structures, parking areas & landscaping allowed, provided not obscure view from public rights-of-way to and beyond Lake Washington.
- **Staff recommendation:**
 - Preserve views of lake and the opposite shoreline. Preserve views of the shoreline edge, if feasible, given the existing conditions and improvements.
 - Allow retention of existing specimen trees and native vegetation.
 - Design restoration planting plan to not block views.



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Lighting (9/11 Memo, Attachment 28, pg. 265-267):

- Proposed Regulations:
 - Light level standards providing protection for:
 - Lake Washington
 - Natural shoreline environment.
 - Residential properties from adjoining commercial development.
 - Light pollution - direction and shielding requirements.
 - Submittal requirements, including lighting studies.
 - Nonconformances – when should compliance be required?
 - Proposed: Increase in GFA of 50%
 - What about major remodels? Should those be addressed?

Staff recommendation: Proposed regulations in Attachment 28



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Miscellaneous Standards (9/11 Memo, Attachment 27, pg. 263-264):

- **Key Issues:** New standards address design of water-oriented uses.
- **Proposed Regulations:**
 - Screening of outdoor storage areas, rooftop appurtenances and garbage receptacles.
 - Glare.
 - Special standards for water-enjoyment uses to ensure designed to facilitate enjoyment of the shoreline.

Staff recommendation: Proposed regulations in Attachment 27



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Other comments/revisions needed on General Regulations (9/11 Memo)?

- Geologically Hazardous Areas (pg. 231)
- Archaeological and Historic Resources (pg. 233)
- Flood Hazard Reduction (pg. 235)
- Parking (pg. 261-264)
- Signage (pg. 267)
- In-Water Work (pg. 269)



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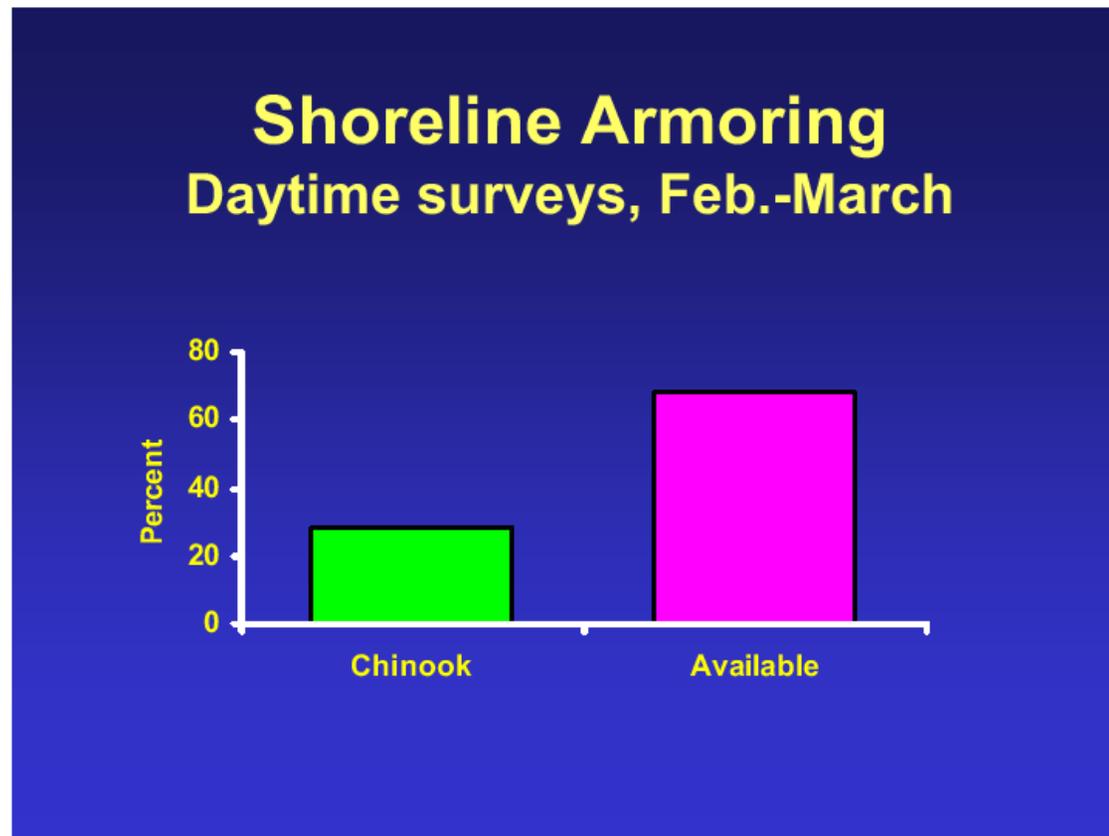
- Shoreline Stabilization
 - Ecology provides clear standards for new shoreline stabilization
 - Science-based
- Inventory shows:
 - 88% hardened shoreline in Residential – L
 - 89% hardened shoreline in Residential – M/H
 - 80% hardened shoreline in Urban Mixed
 - 60% hardened shoreline in Urban Conservancy
 - 0% hardened in Natural



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Juvenile Chinook avoid armored shorelines



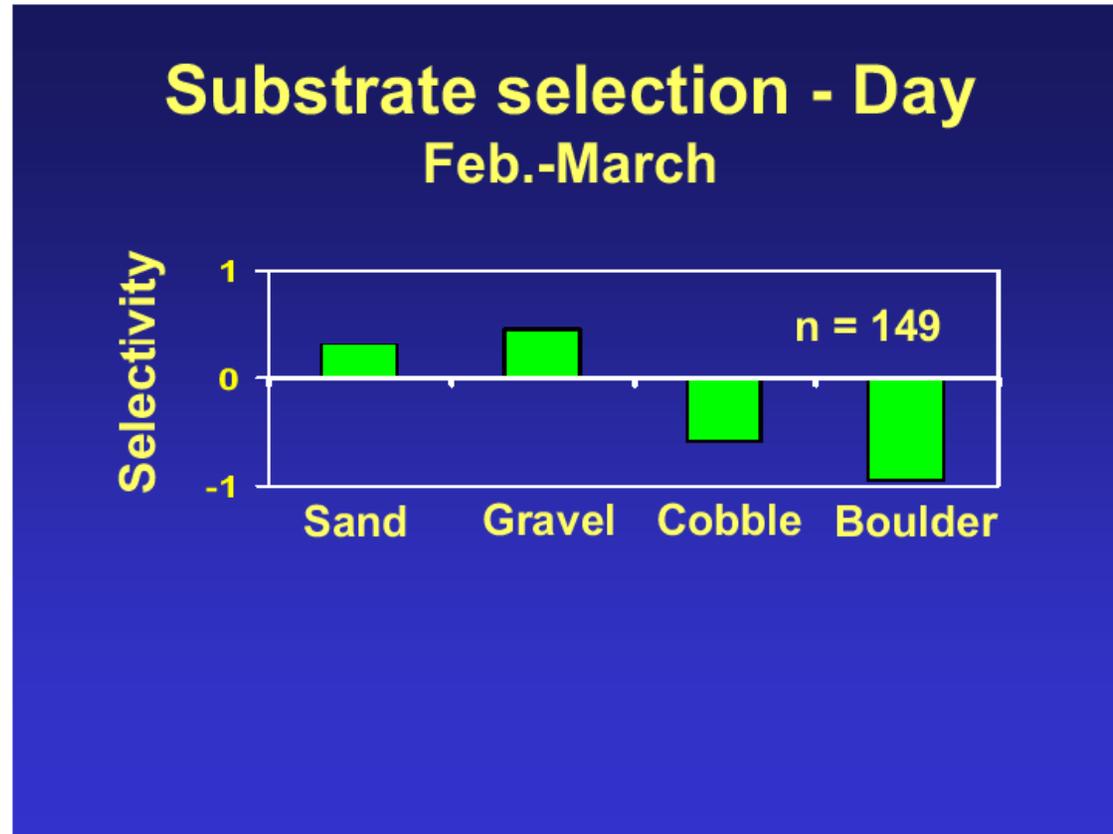
Source: US Fish and Wildlife Service



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Juvenile Chinook preference for sandy or gravel substrate



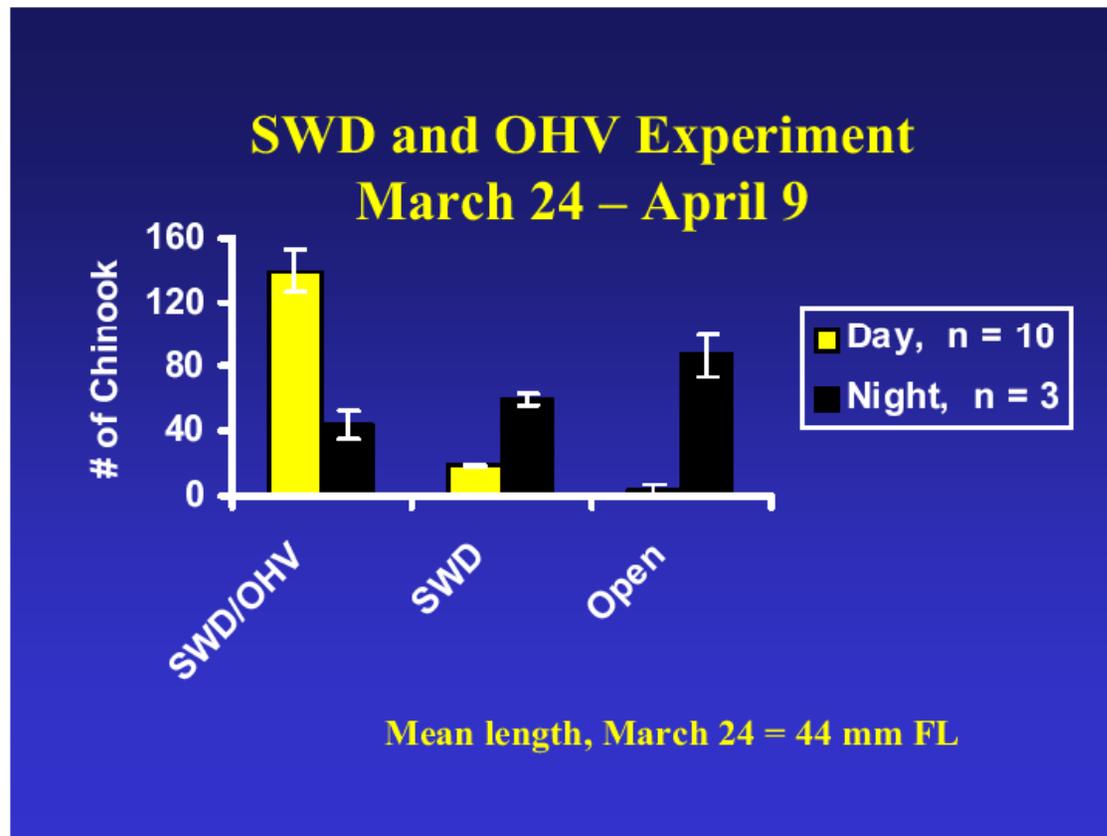
Source: US Fish and Wildlife Service



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Chinook juvenile preference for woody debris and overhanging vegetation



Source: US Fish and Wildlife Service



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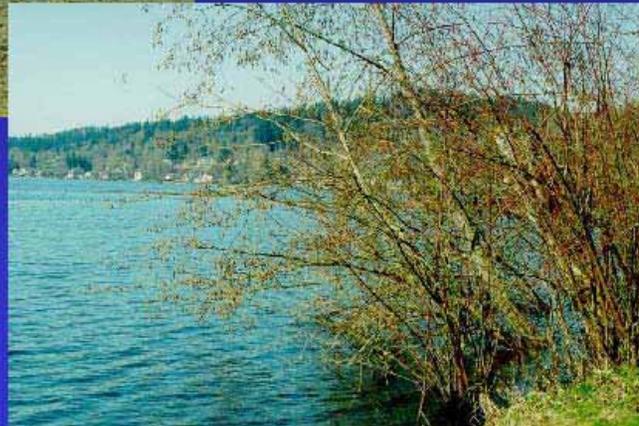


Preferred Habitat Conditions



Open sandy beach –
Day and night habitat

SWD and OHV –
Day habitat



Source: US Fish and Wildlife Service



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Shoreline Stabilization (10/9 Memo, Attachment 7, pg. 84-89)

- **Key Issues:** Existing standards contained preference for soft shoreline techniques. New standards are more restrictive than current provisions in a number of areas, including:
 - Submittal requirements (geotechnical report)
 - Mitigation (shoreline plantings and gravel substrate)
 - Threshold for repair activities to existing bulkhead.
- **Proposed Regulations:**
 - Geotechnical report for hard structural stabilization
 - Permitting preference for soft-shoreline stabilization
 - Must implement soft shoreline stabilization, if possible
 - Threshold of <25% established for repair of existing bulkhead; otherwise must meet new standards
 - Allow placement of fill material for purposes of habitat enhancement waterward of OHWM
 - If OHWM shifts landward, lot coverage and shoreline setback based on original OHWM
 - Mitigation = native shoreline planting plan and enhancement of shallow-water habitat



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Shoreline Restoration

- Goal = Achieve improvements to shoreline ecological functions over time
- One of key issues – riparian habitat is generally non-functional
- Staff recommendation: Focus on making improvements to riparian habitat by introducing overhanging shoreline vegetation, reducing shoreline armoring, introducing appropriate substrate materials
- How?:
 - # of options:
 - Regulations
 - Regulatory flexibility and incentives
 - Education and technical assistance
 - Financial incentives



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Restoration project in PAA



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Restoration project in PAA



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Shoreline Restoration – Range of Options (9/11 packet, pg. 22-26)

- Issues to consider:
 - Costs
 - Estimated Costs Associated with Beach

Activity	Cost	Example (Beach Establishment for 60' wide lot)
Permitting	\$5,000 - \$12,000	\$5,000 - \$12,000
Permitting consultation	\$1,000 - \$3,000	\$1,000 - \$3,000
Design	\$7,000 - \$15,000	\$7,000 - \$15,000
Geotechnical Analysis	\$2,000-\$4,000	\$2,000-\$4,000
Engineering Analysis	N/A	N/A
Construction Cost	\$600 - 700/linear foot	\$36,000 - \$42,000
Planting Costs	\$2.50-\$3.50 SF	\$2,250 - \$3,150
5-Year Monitoring and Maintenance Costs	\$6,000 to \$12,500 for monitoring work. Estimated \$5,000 for maintenance	\$11,000 - \$17,500
Security Fees	The price for the Bonds are directly related to the cost of the project	\$2,400 - \$3,600
Estimated Total		\$66,650 - \$100,250



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- **Costs of full beach establishment are high (~\$65 – 100K or ~3.5-5.5% of recent new SFR building valuations)**
- **Other techniques (e.g. shoreline vegetation) would cost less**
- **Opportunities may exist for financial incentives (e.g. Community Salmon Fund, Public Benefit Rating System, etc.), but there are issues with these:**
 - **Community Salmon Fund - competitive grant process, better likelihood with more participating properties**
 - **PBRS – If project qualifies, not a significant financial savings**
- **Some property owners have concerns about impacts on property values**



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– Effectiveness

- Regulatory approach may be most effective tool – more properties are likely to participate
- Regulatory flexibility could be a good tool, but it requires careful consideration of regulations to ensure some property owners will be enticed to participate
- Voluntary participation may not lead to high incidence of restoration projects, but it could have more shoreline property owner support – with better education tools and changes re: permitting and gravel substrate placement there could be improvement over time



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– Threshold

- # of different tools that could be used to determine when a restoration project should be required – threshold may depend on what is required:
 - All new construction
 - Increases in square footage
 - » % of existing building or gross floor area
 - » Set amount
 - Cost of improvement
 - » Set amount
 - » % of total building evaluation
 - » % of total assessed valuate of property and improvements



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Staff's recommendation:

- Combination of strategies:
 - Shoreline ecological restoration, given existing site conditions & features (9/11 Memo, Approach 1, pg. 22).
 - Use of native plants (9/11 Memo, Approach 2, pg. 23).
 - Land surface modification standards (10/9 Memo, pg. 91-92)
 - Tree removal standards (9/11 Memo, Approach 5, pg. 24)
 - Non-regulatory – education and assistance (9/11 Memo, Approach 10, pg. 26)
- When should bulkhead removal be investigated?
 - new development and significant redevelopment
 - Otherwise, standards for native vegetation would apply



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Marina (10/9 Packet, pg. 81-84)

- Key Issues: Setback of associated piers.
- Proposed Regulations:
 - Many existing regulations carried forward
 - Key new standards:
 - Dimensional, piling, and grating standards
 - Setback from stream outlet
 - Use of BMPs for Marina Operators and sill prevention and response

Staff recommendation: Proposed regulations in Attachment 7

Note: Need to add standards addressing repair and additions



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Example of 30-degree setback from residence



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Dredging (10/9 Packet, pg. 89-91)

- Key Issue: More restrictive standards for dredging.
- Proposed Regulations:
 - New development sited to avoid need for dredging
 - Dredging limited (support existing uses, restore ecological functions, to use materials for shoreline restoration)
 - New standards and submittal requirements

Staff recommendation: Proposed regulations in Attachment 7



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Land Surface Modification (10/9 Packet, pg. 91-92)

- Key Issues: Limiting LSM activities within shoreline setback
- Proposed Regulations:
 - Prohibit LSM activities within shoreline setback, with some exceptions:
 - Shoreline habitat enhancement projects/soft shoreline stabilization measures
 - Authorized activities
 - Maintenance, etc.

Staff recommendation: Proposed regulations in Attachment 7



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Other comments/revisions needed on Shoreline Modifications (10/9 Memo)?

- Breakwaters (pg. 89)
- Fill (pg. 92)
- Shoreline Habitat and Natural Systems Enhancement Projects (pg. 93)



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Shoreline Development Standards

- Lot Size/Density
 - Density Incentive in Residential – M/H for public access

Shoreline Environment	Existing Zoning Standards	Existing Shoreline Standards	Proposed Shoreline Standards
Urban Mixed	No minimum lot size to 3,600 sq. ft./unit	1,800 sq. ft./unit to 3,600 sq. ft./unit	No minimum lot size to 1,800 sq. ft./unit
Residential – M/H	1,800 sq. ft./unit – 3,600 sq. ft./unit	3,600 sq. ft./unit	1,800 sq. ft./unit for 2 units; otherwise 3,600 sq. ft./unit
Residential – L	5,000 sq. ft. to 12,500 sq. ft.	12,500 sq. ft.	5,000 sq. ft. to 12,500 sq. ft.
Urban Conservancy	1,800 sq. ft./unit (for private property)	Case-by-case	12,500 sq. ft.
Natural	Varies	35,000 sq. ft.	12,500 sq. ft.



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Shoreline Development Standards

- Building Height – key changes:
 - Proposing to measure above street in CBD (same as zoning)
 - Some reductions in height from existing SMP to better reflect zoning height standards
 - Incorporated height incentive for superior view corridor that is found in zoning (R-M/H and UC)
 - Addressed height bonus approved through PUD

Shoreline Environment	Existing Zoning Standards	Existing Shoreline Standards	Proposed Shoreline Standards
Urban Mixed	25' to 55'	35' to 41'	30' to 55'
Residential – M/H	25' to 35'	30' to 35'	25' to 35'
Residential – L	25'	25'	25'
Urban Conservancy	Case-by-case	25' to 41'	25' to 35'
Natural	Varies	25' to 35'	25' to 30'



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Shoreline Development Standards

- Lot Coverage
 - Not currently addressed in SMP
 - Generally reflect zoning, except that waterfront properties in CBD 2 have slightly less lot coverage to account for shoreline vegetation

Shoreline Environment	Existing Zoning Standards	Existing Shoreline Standards	Proposed Shoreline Standards
Urban Mixed	70-100% with higher standards in CBD	None	80-100%
Residential – M/H	60-80%	None	60-80%
Residential – L	50%	None	50%
Urban Conservancy	Case-by-case for parks, otherwise 60-70%	None	30% for recreational uses, otherwise 50%
Natural	Varies	None	50%



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Shoreline Uses

- Most issues addressed in general regulations
- This section focuses on special standards that may be needed for some shoreline uses



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Commercial Uses (10/9 Memo, pg. 111-112)

- Key Issues: New standards for float plane facilities
- Proposed Regulations:
 - Taxiing patterns to minimize noise impacts and interference with navigation and moorage
 - Fuel spill and cleanup materials
 - Hours of operation

Staff recommendation: Proposed regulations in Attachment 8



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Recreational Uses (10/9 Packet, pg. 113 – 115)

- Key Issues: New standards for tour boat facility and boat launches
- Proposed Regulations:
 - Tour Boat facility:
 - Capacity
 - On-site passenger loading areas
 - Limitations on overwater structures
 - Boat launches:
 - Location standards
 - Design standards

Staff recommendation: Proposed regulations in Attachment 8



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Transportation Facilities (10/9 Packet, pg. 115-117)

- Key Issues: New standards for water taxis and passenger only ferries. New standard re: street tree placement to consider protection of public views.

Staff recommendation: Proposed regulations in Attachment 8



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Other comments/revisions needed on Shoreline Uses (10/9 Memo)?

- General Standards (pg. 111)
- Residential Uses (pg. 111)
- Commercial Uses (pg. 111-113)
- Industrial Uses (pg. 113)
- Recreational Development (pg. 113-115)
- Transportation Facilities (pg. 115-117)
- Utilities (pg. 117-118)
- Land Division (distributed in e-mail)



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- Schedule
 - November 20th next meeting
 - Focus on:
 - Shoreline setbacks
 - Shoreline vegetation standards
 - Shoreline restoration
 - Pier standards



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ANY QUESTIONS?