

Carol



City of Tukwila

Department of Community Development

MEMORANDUM

TO: Tukwila City Council
FROM: Carol Lumb, Senior Planner
CC: Mayor Haggerton
Rhonda Berry, City Administrator
Bob Sterbank, City Attorney
DATE: October 21, 2009
SUBJECT: Packet #6 - Handouts

Attached you will find the following handouts relative to the October 27, 2009, Council Work Session on the Planning Commission Recommended DRAFT Shoreline Master Program:

- ❖ Meeting Agenda
- ❖ Updated Table of Contents
- ❖ Summary Sheet by SMP Section: *Includes a Summary Sheet for each section of the PC Recommended Draft SMP with attached text if the proposed revisions are extensive*
- ❖ Matrix B
- ❖ Appendix D, Net Loss Analysis (*inadvertently omitted from Council copy of the PC Recommended Draft SMP*)
- ❖ Department of Ecology Report on No Net Loss
- ❖ Memo from Kenyon Disend, Inc. on Bank Loans and Nonconforming Uses/Structures
- ❖ Letter from R.W. Thorpe, dated October 9, 2009, and Cost Estimate of Re-vegetation
- ❖ E-mail from Jeff Weber, dated October 19, 2009

This meeting will be dedicated to review of Matrix B, the Summary Sheets and possible changes to the Planning Commission Recommended Draft SMP.

The **Summary Sheets** attached take each section of the Planning Commission Recommended Draft SMP, and identify proposed changes for each. Staff has used the clean copy of the PC Recommended Draft SMP for the Summary Sheets so that proposed changes will be easier to see. If the SMP section or subsection has a number of proposed revisions, we have attached the whole section or subsection so that Council can see the proposed changes in the context of the entire section or subsection.

Summary Sheets are printed on white paper; attached sections from the clean copy of the PC Recommended Draft SMP are printed on buff colored paper. In the Summary Sheets, please note that **technical changes** are those that correct numbering, punctuation, or clarify language but in staff's opinion are not substantive or do not revise overall policy. **Proposed policy changes** are substantive changes that staff is identifying separately from technical changes.

Matrix B summarizes the comments received by the close of the public hearing and provides a staff response to the comments. Matrix B also includes staff proposed revisions.

Please let me know if you have any questions or would like to schedule time with staff to go over any questions. I can be reached at 206-431-3661.



AGENDA

Tukwila City Council SMP Work Session

**October 27, 2009
3:00 p.m. – 7:00 p.m.
City Council Chambers**

- | | |
|---|-------------------------|
| I. Agenda Packet | 3:00 – 3:15 p.m. |
| <ul style="list-style-type: none">• Opening Comments – Mayor Haggerton• Requested Materials – DCD Staff | |
|
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| II. Proposed Revisions to PC Recommended Draft SMP | 3:15 – 6:50 p.m. |
| <ul style="list-style-type: none">• DCD Staff• See Summary Sheets in packet• Questions from Council | |
|
 | |
| III. Next Meeting | 6:50 – 7:00 p.m. |
| <ul style="list-style-type: none">• Discuss options for upcoming meetings | |

TABLE OF CONTENTS

Letter from Mayor Haggerton, dated July 23, 2009

TAB: Draft SMP

Strike-Out/Underlined Version of the Planning Commission Recommended DRAFT Shoreline Master Program

TAB: Matrix B -

Council SMP Working Matrix - Comment Summary (*distributed for October 27 Work Session*)

TAB: Matrix A

Public Comments from STAFF Draft of SMP

TAB: DOE Comments

Letter from Department of Ecology, dated June 30, 2009, regarding DOE comments on the Planning Commission Recommended DRAFT Shoreline Master Program

TAB: BUFFERS

Buffer related information, including:

1. Memo from Jim Morrow and Jack Pace, dated September 9, 2008
2. Memo from Carol Lumb, dated October 10, 2008
3. Memo from Jim Morrow, dated January 26, 2009
4. Memo from Jim Morrow, dated May 8, 2008
5. King County Flood Management Plan, Sections 5.9.9 and 5.9.10
6. Memo from Jim Morrow, dated July 13, 2009
7. Memo from Jim Morrow, dated July 14, 2009
8. Shoreline Buffer Determination – Planning Commission excerpt from February 5, 2009
9. Levee Profiles

TAB: October 27, 2009 – Work Session

Meeting Agenda

MEMO - Packet #6 Handouts, dated October 21, 2009

- *Summary Sheets by SMP Section*
- *Appendix D, Net Loss Analysis*
- *Department of Ecology Report on No Net Loss*
- *Memo from Kenyon Disend, Inc. on Bank Loans and Nonconforming Uses/Structures*
- *Letter from R.W. Thorpe, dated October 9, 2009, and Cost Estimate of Re-vegetation*
- *E-mail from Jeff Weber, dated October 19, 2009*

TAB: October 6, 2009 – Work Session

Meeting Agenda

MEMO - Packet #5 Handouts, dated October 1, 2009

- *Cost Estimate for Hypothetical Shoreline Buffer Landscaping under Proposed SMP*

TAB: September 22, 2009 – Work Session

Meeting Agenda

Work Session Summary

MEMO - Packet #4 Handouts, dated September 16, 2009

- *Handout Comparing Surrounding Cities SMP Standards for Nonconforming Uses and Structures*
- *Copy of WAC 173-27-080*
- *DRAFT Criteria for Nonconforming Use and Structure Conditional Uses Permit*

TAB: August 25, 2009 – Work Session

Meeting Agenda

Work Session Summary

MEMO - Packet #3 Handouts, dated August 20, 2009

- *Regulatory Framework for Public Access Requirements*
- *Nonconforming/Pre-existing Uses and Structures Chart*

TAB: August 11, 2009 – Work Session

Meeting Agenda

Work Session Summary

MEMO - Packet #2 Handouts, dated August 6, 2009

- *Memo – Sandra Whiting, Vegetation Protection and Landscaping*

TAB: July 28, 2009 – Work Session

Meeting Agenda

Work Session Summary

MEMO - Packet #1 Handouts, dated July 23, 2009

TAB: July 14, 2009 – Work Session

Meeting Agenda

Work Session Summary

TAB: July 7, 2009 – Work Session

Meeting Agenda

Work Session Summary

TAB: MISC.

- *Duwamish River Transition Map (distributed for July 28 Work Session)*
- *2009 FEMA Letters – May 22, May 12 and April 24 (distributed for August 11 Work Session)*
- *Memo – Jim Morrow, Flood Insurance Program (distributed for August 11 Work Session)*
- *Chronology of Public Comment/Input Process (distributed for August 11 Work Session)*

SUMMARY SHEETS

SECTION 1 INTRODUCTION

1.1 PURPOSE AND BACKGROUND 1

No changes proposed to PC Draft.

1.2 SHORELINE JURISDICTION 2

No changes proposed to PC Draft.

SECTION 2 TUKWILA'S SHORELINE MASTER PROGRAM

2.1 SMP COMPONENTS 5

No changes proposed to PC Draft.

2.2 SMP ELEMENTS 5

No changes proposed to PC Draft.

2.3 HISTORY OF SMP PLANNING IN TUKWILA..... 6

No changes proposed to PC Draft.

2.4 CURRENT SMP UPDATE PROCESS 6

No changes proposed to PC Draft.

2.5 CITIZEN REVIEW PROCESS 7

No changes proposed to PC Draft.

SECTION 3 DEFINITIONS: SUMMARY SHEET

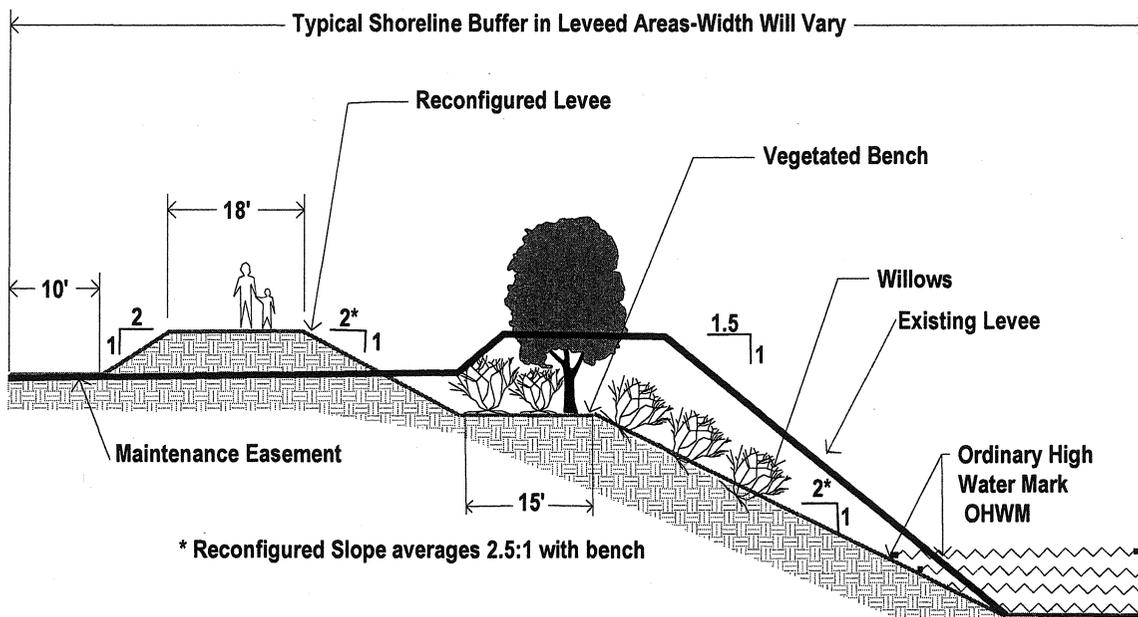
PROPOSED NEW DEFINITION #1

Technical Correction

New definition..... 11

Provide a definition that identifies the City’s preferred levee profile.

Levee, Preferred Profile: shall mean, where there is room, the preferred levee profile for any new or reconstructed levees is the King County “Briscoe Levee” profile – 2.5:1 overall slope with 15 foot mid-slope bench for maintenance access and native vegetation plantings. Where there is insufficient room for a levee backslope due to the presence of existing structures, a floodwall may be substituted. See Figure X for an illustration of the preferred profile.



* Reconfigured Slope averages 2.5:1 with bench

Preferred Levee Profile

Not To Scale

Staff Recommended Solution

Staff recommends including the new definition and the illustration of the preferred profile.

SECTION 3 DEFINITIONS: SUMMARY SHEET

PROPOSED NEW DEFINITION #2

Technical Correction

New definition 12

Provide a definition for a regional detention facility as follows:

Regional Detention Facility: shall mean a stormwater detention and/or retention facility that accepts flow from multiple parcels and/or public ROW. The facility may be public or private. The facility shall be designed such that a fence is not required, planted with native vegetation, designed to blend with the surrounding environment, and provide design features that serve both public and private use, such as an access road that also can serve as a trail. The facility shall also be designed to locate access roads and other impervious surfaces as far from the river as practical.

Staff Recommended Solution

Staff is proposing the definition for a regional detention facility, which is tied to a staff proposed change in Section 8 to add regional detention facilities as a permitted use in the buffer in anticipation that there may be circumstances when a regional detention facility needs to be located in the buffer area.

Technical Correction #1

Revise existing definition 15

Revise the definition for shoreline jurisdiction as follows:

Shoreline Jurisdiction: Tukwila Shoreline Jurisdiction includes the channel of the Green/Duwamish River, its banks, the upland area which extends from the ordinary high water mark landward for 200 feet on each side of the river, floodways and all associated wetlands within its floodplain. For the purpose of determining shoreline jurisdiction the floodway shall not include those lands that have historically been protected by flood control devices and therefore have not been subject to flooding with reasonable regularity.

Staff Recommended Solution

Staff suggests revising the definition for shoreline jurisdiction, found on page 15, to exclude properties from shoreline jurisdiction that are greater than 200 feet from the OHWM that do not flood regularly as follows:

SECTION 4 SHORELINE INVENTORY AND CHARACTERIZATION – SUMMARY: SUMMARY SHEET

SECTION 4.....19

Technical Correction

Technical revision proposed to describe river reaches designated for the purposes of the baseline shoreline inventory and provide a reference to a map (Map 3) depicting the reaches.

The proposed text additions are as follows:

Local jurisdictions updating their Shoreline Master Program (SMP) are required to prepare an inventory and characterization of the shoreline resources within their boundaries. As part of the City’s SMP update, a Draft Inventory and Characterization Report and Map Folio was prepared in December 2006, and finalized in the spring of 2007 following technical review by Ecology and King County. The final report and map folio are included as Appendix A to this SMP.

The purpose of the inventory and characterization report was to conduct a baseline inventory of conditions for water bodies regulated as “shorelines of the state” located in the City of Tukwila. The area regulated under Tukwila’s SMP is approximately 12.5 linear miles along the banks of the Green/Duwamish River. For the baseline inventory, the river shoreline was divided into four reaches: 1) Reach G1-PAA (southern Potential Annexation Area); 2) Reach G1 (from the southern City boundary downstream to the Black River/Green River confluence); 3) Reach G2 (from the Black River/Green River confluence downstream to the northern City limits); and 4) Reach G2-PAA (the northern Potential Annexation Area). The reaches are depicted on Map 3.

The shoreline characterization identifies existing conditions, identifies current uses and public access, evaluates functions and values of resources in the shoreline jurisdiction, and explores opportunities for conservation and restoration of ecological functions. The findings are intended to provide a framework for updates to the City’s shoreline management goals, policies, and development regulations. Key findings of the inventory and characterization are summarized below.

Staff Recommended Solution

Staff recommends the approval of the suggested technical language changes, as the designation of the shoreline reaches becomes important when evaluating the cumulative impacts of the proposed SMP.

SECTION 5 SHORELINE RESTORATION - SUMMARY SUMMARY SHEET

5.1 BACKGROUND27

Technical Correction

Update on status of Restoration Plan in response to comments from Councilmember Robertson

Staff Recommended Solution

Staff recommends the proposed revisions.

5.2 ASSESSMENT OF SHORELINE FUNCTIONS 27

No changes proposed to PC Draft.

5.3 PLANS, PROGRAMS AND COMPLETED PROJECTS 29

Technical Correction

Staff proposed addition to reference the City's CIP and its connection to implementation of the Restoration Plan projects.

Staff Recommended Solution

Staff recommends the language changes to this section.

5.4 RESTORATION OPPORTUNITIES 30

Technical Correction

Staff proposes adding three additional types of restoration opportunities that will benefit the Green/Duwamish River in Tukwila.

Staff Recommended Solution

Staff recommends the language changes to this section.

5.5 POTENTIAL PROJECTS AND PRIORITIES 30

Technical Correction

Additional language proposed to identify the Transition Zone as the highest priority area for restoration projects, in response to comment from Councilmember Robertson.

Staff Recommended Solution

Staff recommends the language changes to this section.

SECTION 5 SHORELINE RESTORATION PLAN - SUMMARY

5.1 Background

The state guidelines require that local governments develop SMP policies that promote "restoration" of impaired shoreline ecological functions and a "real and meaningful" strategy to implement restoration objectives. The City's shoreline inventory and characterization report identifies which shoreline ecological functions and ecosystem processes have been impaired. Local governments are further encouraged to contribute to restoration by planning for and supporting restoration through the SMP and other regulatory and non-regulatory programs. As part of the SMP update process, the City developed a Draft Shoreline Restoration Plan in February 2007. The draft plan was finalized in May 2008 following technical review by King County and Ecology and has since been updated to include additional potential projects, address additional Ecology comments and refocus priorities to projects within the Transition Zone (response to comment from D.R.). It is included as Appendix B to the SMP.

The restoration plan builds on the Inventory and Characterization Report and provides a framework to:

- Identify primary goals for ecological restoration of the Green/Duwamish ecosystem;
- Identify how restoration of ecological function can be accomplished;
- Suggest how the SMP update process may accomplish the restoration of impaired shoreline functions associated with the Green/Duwamish ecosystem; and
- Prioritize restoration projects so that the highest value restoration actions may be accomplished first.

5.2 Assessment of Shoreline Functions

As summarized in the previous section, the Inventory and Characterization analysis examined riverine and estuarine ecosystem processes that maintain shoreline ecological functions, and identified impaired ecological functions. The inventory report identified key ecosystem processes, and provided a qualitative assessment of their levels of functioning at both a watershed and city reach scale. Key ecosystem functions identified in the inventory, their level of alteration, and potential restoration actions are summarized in Table 1.

As noted in the Inventory and Characterization Report and summarized in the Shoreline Inventory and Characterization Summary Section, many of the alterations to shoreline

functions and ecosystem processes in the Green/Duwamish River are due to watershed scale issues within the upper watershed which cannot be fully restored or addressed in the lower river section through Tukwila. However, hydrologic, water quality, and habitat restoration measures in the City do have the potential to improve the overall functioning of this important section of the Green/Duwamish River ecosystem that includes the transition zone from fresh to salt water.

Table 1. General Restoration Potential within the Shorelines of Tukwila

Function Category	Function	Alterations to natural functioning	Potential Restoration Action within the City
Hydrologic	Channel -Floodplain Interaction	Presence of flood protection structures (e.g., levees, river bank revetments, flood gates) and significant fill and development along the shoreline limit channel-floodplain interactions in Tukwila.	<ol style="list-style-type: none"> 1. Modify current levees and revetments to increase channel and floodplain interaction; 2. Excavate back or side channels;
Hydrologic	Upland sediment generation	Fine sediment contribution to the river is increased due to build-up and wash-off from surrounding urban land uses.	<ol style="list-style-type: none"> 1. Implement enhanced stormwater BMPs for fine sediment removal in stormwater runoff.
Water Quality	Retention of particulates and contaminants	Levees and revetments are virtually continuous along the riverbanks, limiting the potential to retain particulates or contaminants contained in stormwater sheet flows in the fluvially dominated reaches. Particulates, including sediment, are retained in the tidally dominated reaches, as evidenced by the need to dredge the estuary turning basin.	<ol style="list-style-type: none"> 1. Modify current levees and revetments to increase channel and floodplain area; 2. Install native riparian species to increase bank roughness.
Water Quality	Nutrient Cycling	As channel-floodplain interaction was reduced, the channel became a conduit for nutrients, offering little opportunity for contact time with soils.	<ol style="list-style-type: none"> 1. Increase riverine wetland area; 2. Install native riparian plant species. 3. Set back banks (revetments and levees).
Large Woody Debris (LWD) and Organics	Maintain characteristic plant community	The majority of the shoreline within the City of Tukwila is currently dominated by non-native invasive weed species (Himalayan blackberry, reed canary-grass, and Japanese knotweed). Some higher quality areas of cottonwood, alder, and willow exist in riparian areas bordering open space, parkland, and residential zones.	<ol style="list-style-type: none"> 1. Remove invasive plants and install native riparian species; 2. Incorporate LWD into bank stabilization and restoration projects; 3. Institute programmatic weed control activities along shoreline. 4. Promote bioengineering techniques for shoreline stabilization projects.
LWD and Organics:	Source of LWD	Despite the lack of many sources for LWD, there are some large cottonwoods and big leaf maples occur along the levees and revetment system.	<ol style="list-style-type: none"> 1. Install native riparian species; 2. Incorporate LWD into bank stabilization and restoration projects.

5.3 Plans, Programs, and Completed Projects

The importance of the Green/Duwamish ecosystem within the Puget Sound has resulted in significant focus on this area in terms of restoration potential. With the federal listing of Chinook and bull trout as endangered species, watershed planning in the region (e.g., WRIA 9) has focused on developing a Salmon Habitat Plan (WRIA 9, 2005), to which the City of Tukwila is a party. The plan establishes goals, objectives, and programmatic and site specific actions to address restoration of habitat critical to salmon species in the Green/Duwamish watershed.

Tukwila has already engaged in the greater regional restoration effort for the Green/Duwamish River. The City Council has ratified the WRIA 9 Plan and contributes resources to maintain operating staff. Tukwila has worked within the larger Green/Duwamish River Ecosystem restoration project to acquire or donate properties that are either currently functioning (Cecil B. Moses Park, Codiga Farm), or have the potential for restoration (North Winds Weir). WRIA 9 and other regional partners are currently working together to monitor baseline conditions. Several projects from the WRIA 9 Plan are included on the City's Capital Improvement Program list; other projects will be added as CIP projects are completed and funds are identified for new projects.

The restoration plan identifies several projects that have already been completed in the Green/Duwamish River. These projects provide an excellent opportunity to learn about what river restoration measures are the most effective. For example, it appears that the back channel that was excavated at Codiga Farm provides important habitat for migrating juvenile fish.

5.4 Restoration Opportunities

Based on the key ecosystem functions that are currently altered, there appear to be ~~two~~five specific types of restoration actions that will most benefit the Green/Duwamish ecosystem in Tukwila. These actions are intended to boost the levels of ecosystem functioning as part of a self-sustaining ecosystem that will limit the need for future manipulation. While these projects are intended to restore many ecosystem functions, the restoration activities will occur in the highly urban valley bottom, and as a result, cannot fully achieve pre-disturbance channel conditions. In addition, some restoration actions must occur at the watershed scale, which will restore ecosystem functions that cannot be addressed solely within Tukwila or as part of the SMP.

- **Enlarging channel cross-sectional area.** This action could include setting back levees and re-sloping banks to reduce steepness ~~revetments, and the excavation of historic fill or floodplain materials to create back channels.~~ These actions will increase flood storage, allow for more stable levees, restore some floodplain area, provide a larger intertidal zone in this important transitional area, and provide a more natural transition from aquatic to upland habitats.
- **Enhancing existing habitats.** These actions could include the removal of non-native invasive vegetation, installation of native riparian vegetation, and installation of LWD below Ordinary High Water. This action will improve the functioning of the aquatic, riverine wetland, and riparian habitats that currently exist along the Green/Duwamish River.
- **Creating off-channel habitat areas.** This action would create off channel areas through the excavation of historic fill or floodplain materials to create back channels as fish foraging and refugia areas.
- **Reconnecting wetland habitat to the river.** This action would reconnect an old oxbow wetland to the river, allowing for off-channel habitat (Nelson Side Channel).
- **Removing fish barriers where tributary streams discharge to the river.** This action would remove flap gates and install fish-friendly flap gates at the mouths of Tukwila's three major streams (Gilliam, Southgate and Riverton) and possibly restore habitat area at these locations in the shoreline jurisdiction.

5.5 Potential Projects and Priorities

The restoration plan summarizes 26 potential projects as specific restoration projects within the shorelines of Tukwila. Most of the restoration projects are part of ongoing restoration planning through the WRIA 9 watershed planning process. Additionally, opportunities exist to enhance riparian vegetation along the majority of the Green/Duwamish River.

The restoration plan provides a preliminary qualitative (high, medium, low) project ranking system. Within this ranking system, the highest priority location for restoration projects is within the transition zone (response to D.R. comment). The Transition Zone is mapped in Figure X.

High priority projects will typically:

- Address both hydrologic and habitat ecosystem functions;
- Have opportunity for multiple funding sources;
- Include freshwater tributary channels; and/or
- Not require additional property acquisition.

Medium priority projects will typically:

- Address limited ecosystem functions; and
- Be eligible for multiple funding sources, and/or require property acquisition.

Low priority projects will typically:

- Only focus on habitat enhancement;
- Will be used as mitigation to offset impacts elsewhere; or
- Not be eligible for multiple funding sources.

SECTION 6 SHORELINE GOALS AND POLICIES: SUMMARY SHEET

6.1 SHORELINE ENVIRONMENTAL DESIGNATIONS, COMPREHENSIVE PLAN GOAL 5.1.....33

No changes proposed to PC Draft.

6.2 SHORELINE PLANNING AND MANAGEMENT, COMPREHENSIVE PLAN GOAL 5.2.....35

No changes proposed to PC Draft.

6.3 LAND DEVELOPMENT USE AND ECONOMIC VITALITY, COMPREHENSIVE PLAN GOAL 5.3.....36

No changes proposed to PC Draft.

6.4 PRIVATE PROPERTY RIGHTS, COMPREHENSIVE PLAN GOAL 5.438

No changes proposed to PC Draft.

6.5 SHORELINE DESIGN QUALITY, COMPREHENSIVE PLAN GOAL 5.5.....38

No changes proposed to PC Draft.

6.6 ACCESS AND RECREATIONAL USE, COMPREHENSIVE PLAN GOAL 5.6.....39

Technical Correction

Staff proposed revision to Policy 5.6.11 as follows:

Policy 5.6.11: Improve pedestrian connections between the river, Green River Trail and the ~~planned Riverwalk~~ and the Urban Center's commercial, office and residential uses.

Staff Recommended Solution

Staff proposes this revision to remove references to the riverwalk, as the Urban Center Plan is still under review.

6.7 TRANSPORTATION WITH THE SHORELINE JURISDICTION, COMPREHENSIVE PLAN GOAL 5.7.....42

No changes proposed to PC Draft.

6.8 HISTORICAL RESOURCE USE AND ARCHAEOLOGICAL PROTECTION, COMP PLAN GOAL 5.8.....43

No changes proposed to PC Draft.

SECTION 6 SHORELINE GOALS AND POLICIES: SUMMARY SHEET

6.9 NATURAL ENVIRONMENT AND HABITAT USE, COMPREHENSIVE PLAN GOAL 5.9.....43

Technical Correction

Correct the numbering for new policy 5.9.4 (the number 4 was omitted from the PC Recommended Draft)

- New Policy 5.9.4: Support relief from certain shoreline master program requirements for properties affected by habitat restoration projects that result in the movement of the ordinary high water mark.

Staff Recommended Solution

Correct the numbering of the policy – the Planning Commission Recommended Draft SMP omitted the .4 from the policy number.

Policy Question

Should a new policy be added to the Planning Commission Recommended Draft SMP Section 6.9 to emphasize the importance of the Transition Zone by designating it as a priority area for restoration projects?

New Policy 5.9.5: Support establishing the Transition Zone as the priority area for habitat restoration projects given its importance for subtidal and intertidal habitats to allow salmonids to gradually adjust to the change between fresh and saltwater conditions.

Staff Recommended Solution

Staff recommends the addition of the new policy.

6.10 WATER QUALITY, SURFACE WATER AND FLOOD CONTROL USE, COMP PLAN GOAL 5.1044

No changes proposed to PC Draft.

6.11 PUBLIC HEALTH, SAFETY AND WELFARE, COMPREHENSIVE PLAN GOAL 5.11.....45

No changes proposed to PC Draft.

SECTION 6 SHORELINE GOALS AND POLICIES

6.9 Natural Environment and Habitat Use, Comprehensive Plan Goal 5.9

Goal: Restored, enhanced, and protected natural environment resources along the river, including trees, wildlife habitat and features with value for long-term public, scientific and educational uses.

Policies

- Policy 5.9.1: Ensure that shoreline development results in no net loss of shoreline ecological function, minimizes impacts on wildlife and that significant vegetation, sandbars, wetlands, watercourses, and other critical areas identified as important for habitat are maintained through the proper location, design, construction, and management of all shoreline uses and activities.
- Policy 5.9.2: Ensure that shoreline development and activities protect riverbank vegetation and, where feasible, restore degraded riverbanks in accordance with the vegetation management provisions of the Shoreline Master Program, in order to minimize and compensate for impacts to fish and wildlife habitat.
- Policy 5.9.3: Mitigate unavoidable disturbances of significant vegetation or habitat through replacement of habitat and provision of interpretive features consistent with the shoreline access guidelines.
- New Policy 5.9.4: Support relief from certain shoreline master program requirements for properties affected by habitat restoration projects that result in the movement of the ordinary high water mark.
- New Policy 5.9.5: Support establishing the Transition Zone as the priority area for habitat restoration projects given its importance for subtidal and intertidal habitats to allow salmonids to gradually adjust to the change between fresh and saltwater conditions.

SECTION 7 SHORELINE ENVIRONMENT DESIGNATIONS: SUMMARY SHEET

7.1 EXISTING REGULATORY FRAMEWORK47

No changes proposed to PC Recommended Draft

7.2 KEY FINDINGS OF THE SHORELINE INVENTORY / CHARACTERIZATION REPORT AND RESTORATION PLAN48

Technical Correction

Technical revisions proposed to: provide map of Transition Zone and respond to comments from Councilmember Robertson to clarify what ecosystem processes the City can affect versus those affected further upstream, outside the City limits and its control.

See attached text for proposed revisions to Section 7.2

Staff Recommended Solution

Staff recommends the approval of the suggested technical language.

7.3 STATE ENVIRONMENT DESIGNATION SYSTEM49

No changes proposed to PC Recommended Draft

7.4 PROPOSED ENVIRONMENT DESIGNATION51

Technical Correction

Proposed changes to Table 3

Staff Recommended Solution

Staff recommends the approval of the suggested technical language.

7.5 DETERMINATION OF SHORELINE BUFFERS.....55

Technical Correction

Technical revisions proposed to respond to comments from Councilmember Robertson to clarify factors considered in the establishment of buffer widths to include concerns about human safety in addition to flood control and ecological considerations and clarification of the preferred profile for levee reconstruction, including a schematic. The proposed revisions also include a reference to the Biological Opinion, issued by the National Oceanic and Atmospheric Administration in response to the request by the Federal Emergency Management Administration for a consultation on the impact of the National Flood Insurance Program on the Endangered Species Act. Finally, the proposed revisions clarify what ecosystem processes the City can affect versus those affected further upstream, outside the City limits.

SECTION 7 SHORELINE ENVIRONMENT DESIGNATIONS: SUMMARY SHEET

Issues Raised/Options Proposed

Department of Ecology letter dated 6/30/09 raised issue of the need to reference the Biological Opinion in the SMP

See attached text for proposed revisions to Section 7.5

Staff Recommended Solution

Staff recommends the approval of the suggested technical language.

7.6 SHORELINE RESIDENTIAL ENVIRONMENT60

Technical Correction

Minor revisions to text of this section at the request of Councilmember Robertson

See attached text for proposed revisions to Section 7.6

Staff Recommended Solution

Staff recommends the approval of the suggested technical language.

7.7 URBAN CONSERVANCY ENVIRONMENT62

Technical Correction

Several minor revisions to text for “Buffer in Non-Levee Areas” based on comments from Councilmember Robertson and staff proposed revisions to “Buffer in Levee Areas” to provide the option of using a floodwall if existing structures prevent the use of the normal backslope of the levee and also to permit the reduction of the buffer behind the backslope of the levee if a no-build easement is granted to the City. The revisions also anticipate the possibility that fill may be placed behind the levee backslope, in which case staff proposes that the buffer can be reduced, again if a non-build easement is granted to the City. An illustration is provided to show what this might look like.

Exhibit Reference/Subject Property

See October 5, 2009 letter from Jeff Weber, Gordon Derr

See attached text for proposed revisions to Section 7.7

Staff Recommended Solution

Staff recommends the approval of the suggested technical language changes as well as the substantive change allowing the use of floodwalls.

SECTION 7 SHORELINE ENVIRONMENT DESIGNATIONS: SUMMARY SHEET

7.8 HIGH INTENSITY ENVIRONMENT65

Minor revisions to text of this section based on comments from Councilmember Robertson to reflect the critical nature of the Transition Zone.

See attached text for proposed revisions to Section 7.8

Staff Recommended Solution

Staff recommends the approval of the suggested technical language changes as well as the substantive change allowing the use of floodwalls.

7.2 Key Findings of the Shoreline Inventory / Characterization Report and Restoration Plan

This section summarizes findings from the Inventory and Characterization Report and Restoration Plan elements of the SMP update (Appendices A and B). These findings inform the goals, policies, regulations, and the development and application of environment designations. In this context, the key findings can be summarized as follows:

- The Green/Duwamish River throughout Tukwila is a critical resource, particularly in the Transition Zone portion of the river that extends from the East Marginal Way South bridge through the north City limits (Map X), **(comment from D.R.)** where juvenile salmon adjust from fresh to salt water habitat. The river provides migratory habitat for numerous fish species, as well as riparian habitat for a variety of wildlife.
- The river is a critical resource for Muckleshoot Indian Tribe fishing.
- The river is a critical resource for some water dependent uses north of the Turning Basin.
- The river is an important recreational resource for sport fishing, small water craft and Green River Trail users.
- At an ecosystem scale, the habitat is largely homogenous throughout the city. In addition, many ecosystem processes are largely controlled by up-river characteristics, particularly the Howard Hansen Dam and are little affected by actions in the City, except for such functions as water quality (especially fine sediment capture and filtering of contaminants in stormwater), local surface hydrology (stormwater from increasing amounts of impervious surfaces and contribution to peak flows of the river), riparian habitat, and temperature control (shading from riparian habitat). **(staff recommendations and response to DR comments)** With the exception of the functions provided by the transitional mixing zone from salt to fresh water, habitat conditions and functions are relatively similar throughout the shoreline. ~~That is, The transition zone, there are not specific sections of Tukwila's shorelines that needs greater protection and or restoration focus than other sections of the shoreline in the city.~~ **(response to D.R. comment)** ~~In addition, ecosystem processes are largely controlled by up-river characteristics, particularly the Howard Hansen Dam and are little affected by actions in the City.~~
- Restoration opportunities are numerous and spatially distributed throughout Tukwila's shoreline. Activities that provide restoration of both floodplain functions and habitat functions should be prioritized, particularly those projects in the transition zone. Policies should promote -and regulations should enable the City to accomplish restoration goals and actions.

SECTION 7.4 PROPOSED REVISIONS TO TABLE 3

Table 3. Summary of Buffer Widths for Land Use Zones and River Ecological Conditions

Area	Characteristics	Environment	Buffer	Modification
MIC/H & MIC/L Zoned property from North City Limits to EMWS Bridge, and North Potential Annexation Area	Fresh/Salt water Transition Zone, Lower flooding risk, Less than 20' difference from OHWM to top of bank, tidal influence	High Intensity	100'	<p>The Director may reduce the standard buffer on a case-by-case basis by up to 50% upon construction of the preferred cross section:</p> <ul style="list-style-type: none"> - reslope bank from OHWM (not toe) <u>to be no steeper than (D.R. 07/09) at max 3:1</u>, using bioengineering techniques - Minimum 20' buffer landward from top of bank - Bank and remaining buffer to be planted with native species with high habitat value <p>Comment: Maximum slope is reduced due to measurement from OHWM and to recognize location in the Transition Zone where pronounced tidal influence makes work below OHWM difficult. Any buffer reduction proposal must demonstrate to the satisfaction of the Director that it will not result in direct, indirect or long-term adverse impacts to the river. In all cases a buffer enhancement plan must also be approved and implemented as a condition of the reduction. The plan must include using a variety of native vegetation that improves the functional attributes of the buffer and provides additional protection for the <u>shoreline ecological (D.R. 07/09) watercourse functions and values.</u></p>
LDR Zoned property w/o levees from EMWS to I-405	Moderate flooding risk, Less than 25' difference from OHWM to top of bank, tidal influence on northern section	Shoreline Residential	Distance required to set back slope from toe at 2.5:1 plus 20' setback, Min. 50' width	Removal of invasive species and replanting with native species of high habitat value voluntary unless triggered by requirement for a Shoreline Substantial Development permit

LDR Zoned property with levees from EMWS to I-	Moderate flooding risk, Less than 25' difference from OHWM to top of	Shoreline Residential	125'	Upon reconstruction of levee in accordance with approved profile, including 10' access easement on the backside of the levee, the Director may
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SECTION 7.4 PROPOSED REVISIONS TO TABLE 3

405	bank, tidal influence on northern section			reduce the buffer to actual width required. Comment: this applies to City-owned property at Fort Dent.
Commercially zoned property from 42 nd Ave S. Bridge to I-405	Moderate flooding risk, Less than 25' difference from OHWM to top of bank	Urban Conservancy	100'	The Director may reduce the standard buffer on a case-by-case basis by up to 50% upon-construction of the preferred cross section: <ul style="list-style-type: none"> - reslope bank from toe to be no steeper than <u>(D.R. 07/09)</u> at max 2.5:1 using bioengineering techniques - Minimum 20' buffer landward from top of bank - Bank and remaining buffer to be planted with native species with high habitat value Any buffer reduction proposal must demonstrate to the satisfaction of the Director that it will not result in direct, indirect or long-term adverse impacts to <u>shoreline ecological functions (D.R. 07/09) the river</u> . In all cases a buffer enhancement plan must also be approved and implemented as a condition of the reduction. The plan must include using a variety of native vegetation that improves the functional attributes of the buffer and provides additional protection for the <u>shoreline ecological watercourse functions and values. (D.R. 07/09)</u>
West River bank from I-405 to South City Limit, Tukwila 205 Levee and South Annexation Area	High flooding risk, Federally certified and County levee, large water level fluctuations	Urban Conservancy	125'	Upon construction or reconstruction of levee in accordance with City approved profile, to include mid-slope bench and 10' access easement, the Director may reduce the buffer to the actual width required.

SECTION 7.4 PROPOSED REVISIONS TO TABLE 3

<p>East River bank without levee from I-405 south to City Limits</p>	<p>Moderate flooding risk, 20 to 25' difference from OHWM to top of bank, Moderate slumping risk, large water level fluctuations</p>	<p>Urban Conservancy</p>	<p>100'</p>	<p>The Director may reduce the standard buffer on a case-by-case basis by up to 50% upon construction of the preferred cross section:</p> <ul style="list-style-type: none"> - reslope bank from toe <u>to be no steeper than (D.R. 07/09)</u> at max 2.5:1, using bioengineering techniques - Minimum 20' buffer landward from top of bank - Bank and remaining buffer to be planted with native species with high habitat value <p>Any buffer reduction proposal must demonstrate to the satisfaction of the Director that it will not result in direct, indirect or long-term adverse impacts to <u>shoreline ecological functions (D.R. 07/09)</u> the river. In all cases a buffer enhancement plan must also be approved and implemented as a condition of the reduction. The plan must include using a variety of native vegetation that improves the functional attributes of the buffer and provides additional protection for the <u>shoreline ecological watercourse functions and values. (D.R. 07/09)</u></p>
<p>East River bank with levee from I-405 to South City Limit</p>	<p>Moderate flooding risk, 20 to 25' difference from OHWM to top of bank, Moderate slumping risk, large water level fluctuations</p>	<p>Urban Conservancy</p>	<p>125'</p>	<p>Upon reconstruction of levee in accordance with City approved profile, to include mid-slope bench and 10' access easement, the Director may reduce the buffer to the actual width required. (staff proposed edits)</p>
<p>Any shoreline environment where street or road runs parallel to the river through the buffer</p>				<p>End buffer on river side of existing improved street or roadway.</p>

7.5 DETERMINATION OF SHORELINE BUFFERS

The determination of the buffer distances for each shoreline environment was based on several factors including the analysis of buffer functions needed for protecting and restoring shoreline ecological function (as presented in the Shoreline Inventory and Characterization Report) and the need to allow space for bank stability and for protecting human life and structures from damage from high flows, erosion and bank failures. Safety of residents and people who work in buildings along the shoreline has become even more important in recent years due to the increase in stormwater entering the river from increasing impervious surfaces throughout the watershed and the recent problems with the Howard Hanson Dam, which preclude being able to store as much flood water behind the dam in the winter, and increasing the frequency and intensity of flows during high rain events. These higher and more frequent flows will put more stress on oversteepened banks all along the river, increasing the possibility of bank erosion, levee failures, and bank failures. Thus, ensuring that new structures are not built too close to the river's edge is crucial to avoid loss of human life. (D.R. comments 7/09).

Staff also reviewed the rationale for the buffer widths established for watercourses under TMC 18.45, the Sensitive Areas Ordinance, as well as buffer widths recommended by resource agencies, such as the State Department of Fish and Wildlife, Department of Natural Resources, and the recent Biological Opinion issued by National Marine Fisheries Service in relation to FEMA's National Flood Insurance Program. (D.R. comments 7/09).

The final buffer widths proposed by staff for each shoreline environment attempted to balance shoreline ecological function needs, human life and property protection needs (including future levee repair/reconstruction), ~~and~~ existing land use patterns, and state and federal agency policies. (D.R. comments 7/09).

The following information summarizes the analysis carried out and the rationale used for determining buffer widths.

A. Buffer Functions Supporting Shoreline Ecological Resources, Especially Salmonids

Buffers play an important role in the health of any watercourse and an even more important role when considering the health of salmonids in the Green/Duwamish River system. The key buffer functions for the river are summarized below.

The Shoreline Management Act and the Department of Ecology regulations require evaluation of ecological functions and that local SMPs ensure that the policies and regulations do not cause any net loss of shoreline ecological function. In addition, the SMP must identify mechanisms for restoration of lost ecological functions.

SECTION 7.5

The crucial issue for the Green/Duwamish River is the presence of salmonids that are on the Endangered Species list. To protect and restore ecological functions related to these species it is important to provide for the installation of native vegetation along the shoreline. Such vegetation provides shade for improving temperature conditions in the river and habitat for insects on which fish prey. Trees along the shoreline also provide a source of large woody debris (tree trunks, root wads, limbs, etc. that fall into the water), which in turn provides pooling and areas of shelter for fish and other animals. In order to allow for planting of native vegetation, banks need to be set back to allow for less steep and more stable (requiring less armoring) (D.R. 7/09)~~more natural~~ slopes, so that they can be planted. The Corps of Engineers does not allow planting on levees unless they are set back to an average slope of 2.5:1 and constructed with a mid-slope bench. Plantings are allowed on the mid-slope bench and this is crucial for improving shoreline ecological functions that are needed in the river.

The buffer widths needed to achieve a particular buffer function vary widely by function type from as little as 16 feet for large woody debris recruitment (assuming the buffer has large trees) to over 400 feet for sediment removal. The Washington State Department of Fish and Wildlife (WDFW) recommends a riparian buffer width of 250 feet for shorelines of statewide significance (this applies to the Green/Duwamish River). The Washington Department of Natural Resources (WDNR) recommends a riparian buffer of 200 feet for Class 1 Waters (the Green/Duwamish River is a Class 1 Water under the WDNR classification scheme). The National Marine Fisheries Service (responsible at the federal level for overseeing protection of endangered salmonids under the Endangered Species Act) has recommended a buffer of ±250 feet in mapped floodplains areas to allow for protection of shoreline functions that support salmonids.¹ Tukwila's Sensitive Areas Ordinance (TMC 18.45) has established a 100 foot buffer for Type 2 watercourses in the city (those that bear salmonid species).

The key buffer functions for the river are summarized below.

1. Maintenance of Water Quality

Salmonid fish require water that is both colder and has lower nutrient levels than many other types of fish. Vegetated shoreline buffers contribute to improving water quality as described below.

- a. **Water Temperature:** The general range of temperatures required to support healthy salmonid populations is generally between 39 degrees and 63 degrees. Riparian vegetation, particularly forested areas can affect water temperature by providing shade to reduce exposure to the sun and regulate high ambient air temperatures.
- b. **Dissolved Oxygen:** dissolved oxygen is one of the most influential water quality parameters for aquatic life, including salmonid fish. The most significant factor affecting dissolved oxygen levels is water

¹ Endangered Species Act – Section 7 Consultation, Final Biological Opinion and Magnuson –Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation, Implementation of the Flood Insurance Program in the State of Washington, Phase One Document, Puget Sound Region, September, 2008.

SECTION 7.5

temperature – cooler streams maintain higher levels of oxygen than warmer waters.

- c. Metals and pollutants: Common pollutants found in streams, particularly in urban areas, are excessive nutrients (such as phosphorous and nitrogen), pesticides, bacteria and miscellaneous contaminants such as PCBs and heavy metals. Impervious surfaces collect and concentrate pollutants from different sources and deliver these materials to streams during storm events. The concentration of pollutants increases in direct proportion to the total amount of impervious area. Undisturbed or well vegetated riparian buffer areas can retain sediment, nutrients, pesticides, pathogens and other pollutants, protecting water quality in streams. Elevated nitrogen and phosphorus levels in runoff are a typical problem in urban watersheds and can lead to increased in-stream plant growth, which results in excess decaying plant material that consumes oxygen in streams and reduces aquatic habitat quality.

2. Contributing to in-stream structural diversity

- a. Large woody debris (LWD) refers to limbs and tree trunks that naturally fall into the stream bed from a vegetated buffer. LWD serves many functions in watercourses. LWD adds roughness to stream channels, which in turn slows water velocities and traps sediments. Sources of LWD in urban settings are limited where stream corridors have been cleared of vegetation and developed and channel movement limited due to revetments and levees. Under natural conditions, the normal movement of the stream channel, undercutting of banks, wind throw, and flood events are all methods of LWD recruitment to a stream channel.
- b. LWD also contributes to the formation of pools in river channels that provide important habitat for salmonids. Adult salmonids require pools with sufficient depth and cover to protect them from predators during spawning migration. Adult salmon often hold to pools during daylight, moving upstream from pool to pool at night.

3. Providing Biotic Input of Insects and Organic Matter

- a. Vegetated buffers provide foods for salmonids and other fish, because insects fall into the water from overhanging vegetation.
- b. Leaves and other organic matter falling into stream provide food and nutrients for many species of aquatic insects which in turn provide forage for fish.

B. Bank Stability and Protection of Human Lives and Structures (D.R 07/09)

The main period of runoff and major flood events on the Green River is from November through February. The lower Green and Duwamish levees and revetments form a nearly continuous bank protection and flood containment system. Farmers originally

SECTION 7.5

constructed many of these levees and revetments as the protection to the agricultural lands of the area and this original material is still in place as the structural core. In particular, these protection facilities typically have over-steepened banks, areas with inadequate rock buttressing at the toe, and lack habitat-enhancing features such as overhanging vegetation or in-water large woody debris. Because of these design and construction shortcomings, the protection to river banks has not always performed as intended. Instead, there have been bank failures that have threatened structures and infrastructure; erosion of banks – making them even steeper; and damage to levees that has required a series of repair projects.

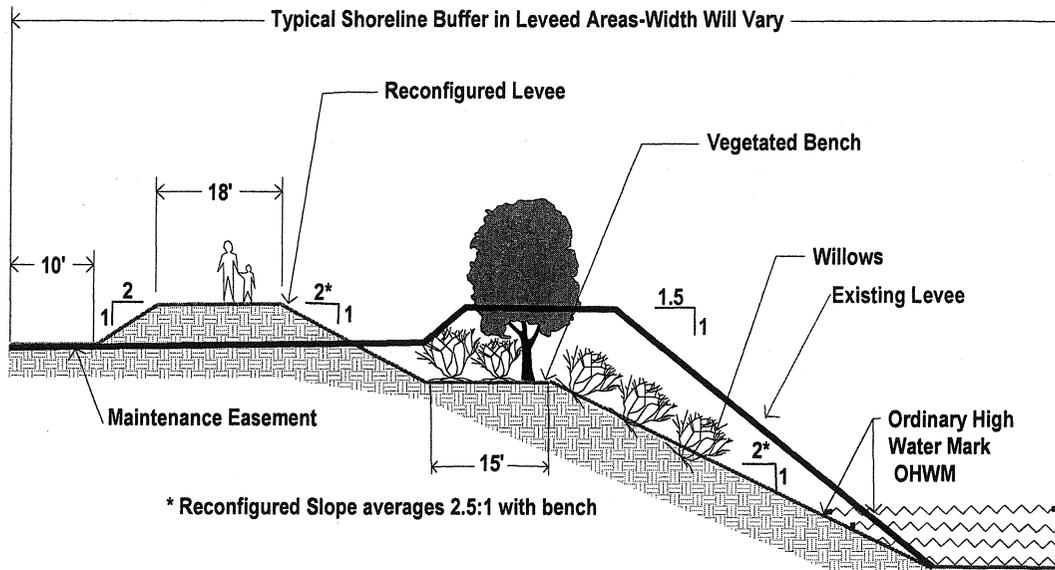
The damage to the levee system in recent storm events lead to discussions among the City, US Army Corps of Engineers and the King County Flood Control District to determine the best levee profile to use to prevent the recurring problem of continued levee repairs. The criteria used to determine the best profile were:

- Public Safety;
- Maintaining levee certification;
- Solutions that eliminate or correct factors that have caused or contributed to the need for the levee repair;
- Levee maintenance needs; and
- Environmental considerations.

To overcome the existing problems and to reduce future maintenance and repair costs, the Corps chose to lessen the overall slope to a stable grade. This selected method is consistent with recommendations set forth in the Corps of Engineers' Manual for Design and Construction of Levees (EM 1110-2-1913) for slope stability. It also is consistent with the levee rehabilitation project constructed on the nearby Briscoe School levee that has proven to be a very effective solution to scour problems – the design slows the river down, provides additional flood storage and allows a vegetated mid-slope bench for habitat improvements. The Corps indicated that this type of profile would become the template for future levee repair and construction projects. King County also plans to use the 2.5:1 overall slope with a mid-slope bench incorporated for planting vegetation for its future levee repairs. This profile was used to repair two areas of the federally-certified levee in Tukwila – the Lily Point project and the Segale project, which were about 2,000 linear feet of repairs. Costs of these repairs were around \$7 million dollars, not including any costs of land acquisition for laying back the levees. It is expected that the use of this levee design will reduce the need to continually repair the levee in those areas, thus avoiding such high expenditures in the future and saving money in the long run. (D.R. 07/09)

The profile discussed above is the Tukwila preferred profile for levee reconstruction as illustrated below:

SECTION 7.5



Preferred Levee Profile
Not To Scale

Because of the similarities in the soil conditions and taking into consideration the tidal influence, the Green/Duwamish River can be divided into three areas – South of I-405; North of I-405; and areas around residential neighborhoods. Looking at the slope geometry and the difference in height between the ordinary high water mark and the 100-year flood elevation for these three areas, it was found that 125-feet of setback distance (buffer) is needed to accommodate the “lay back” of the levee in the area south of I-405 and around Fort Dent Park.² During high flow events, the water surface can be as much as 16 feet above the OHWM in these areas. At locations further downriver, the water surface elevation difference is much less pronounced due to the wider channel and proximity to Puget Sound. For areas without levees, north of I-405 and those areas south of I-405 on the east side of the river (right bank), a 100-foot setback distance is required to accommodate the slopes needed for bank stability. Within residential neighborhoods, a minimum 50-foot setback is justified because of the less intense land use associated with single-family home construction and the estimated amount of space needed to achieve the natural angle of repose, for a more stable slope.

Even though the above explanation for determining appropriate buffer distance used levee design as the example, the same problems exist where there are no levees. The river makes no distinction between an over-steepened slope associated with a levee or a riverbank. Scouring within the river will cause sloughing and slope stability will be weakened, potentially resulting in the loss of structures. In fact, the non-leveed riverbank

² The 125 foot distance includes a 2.5:1 overall slope with a mid-slope bench incorporated, 18 feet at the top of the levee and 10 feet on the back side of the levee for access and inspection.

SECTION 7.5

can be more prone to these problems since they tend to be steeper and consist mainly of sand and silt. This makes them susceptible to erosion. Because the non-leveed riverbanks are for the most part privately owned, they are not actively monitored for damage by the City or County.

~~Appendix D is a chart that presents a Net Loss Analysis and identifies risks to ecosystem functions as well as the proposed standards to prevent a net loss and opportunities to restore some ecosystem functions.~~

C. Conclusions

The determination of buffer widths was based on two important criteria: the need to achieve bank stability and protect structures along the shoreline from damage due to erosion and bank failures and to protect and enhance shoreline ecological function.

Applying the 200 to 250 foot buffer widths recommended by WDFW and WDNR would not be practical given the developed nature of the shoreline. It was also felt that a buffer less than that already established for Type 2 Watercourses under the City's SAO would not be sufficiently protective of shoreline functions, unless those functions were enhanced through various restoration options. Therefore, 100 feet was established as the starting point for considering buffer widths from the standpoint of shoreline ecological function in each of the Shoreline Environments. Between 100 and 125 feet was the starting point for buffer widths from the standpoint of bank stability and property protection.

Thus buffers were established taking into account (as explained in the following sections) the characteristics of each Shoreline Environment, needs for protection/restoration of shoreline ecological functions, and needs for stable banks and human life and property protection.

7.6 SHORELINE RESIDENTIAL ENVIRONMENT

A. Designation Criteria: All properties zoned for single-family use from the ordinary high water mark landward two-hundred (200) feet. In addition, those areas zoned for single family use but developed for public recreation or open space within 200 feet of the shoreline shall also be designated Shoreline Residential, except Fort Dent Park.

B. Purpose of Environment and Establishment of River Buffer: The purpose of the Shoreline Residential Environment is to accommodate urban density residential development, appurtenant structures, public access and recreational activities. However, within the 200 foot shoreline jurisdiction in the Shoreline Residential Environment there will be a protective buffer along the river, where development will be limited to protect shoreline function.

The purpose of the river buffer in the shoreline residential environment is to:

- Ensure no net loss to shoreline ecological functions;
- Help protect water quality and habitat function by limiting allowed uses;
- Protect existing and new development from high river flows by ensuring sufficient setback of structures;
- Promote restoration of the natural character of the shoreline environment; and
- Allow room for reconstructing over-steepened river banks to achieve a more stable slope and more natural shoreline bank conditions and avoid the need for shoreline armoring.

C. Analysis of Development Character of Residential Shoreline

An analysis was prepared that looked at the residential properties along the shoreline and identified the number of parcels with structures within 50 feet and 100 feet of the OHWM. This analysis showed the following:

ZONE	Number of parcels within 50 feet of OHWM	Number of vacant parcels within 50 feet	Number of parcels with structures within 50 feet/%	Number of parcels within 100 feet of OHWM	Number of vacant parcels within 100 feet	Number of parcels with structures within 100 feet/%
LDR	135	12	67/49%	201	25	165/82%

As can be seen from the chart above, almost half of the parcels in the residential neighborhoods have a structure within 50 feet of the OHWM – a direct result of the current King County regulations. To apply a buffer width that is consistent with the City’s Sensitive Areas Ordinance (SAO) of 100 feet would create a situation where 82% of the properties along the river would have nonconforming structures as they relate to the proposed shoreline buffer.

SECTION 7.6

Expansion of single family pre-existing structures in the proposed SMP buffer would be governed by Section 14.6 of the SMP, which permits an expansion of only 50% of the square footage of the current area that intrudes into the buffer and only along the ground floor of the structure. For example, if 250 square feet of a building extended into the proposed buffer, the ground floor could be expanded a maximum of 125 feet in total area along the existing building line.

A buffer of 100 feet was considered for the shoreline residential properties, with the potential of a property owner applying for a buffer reduction of 50%, however, under the Shoreline Management Act, this would have required an application for a shoreline variance for each requested buffer reduction, a process that requires review and approval both at the local and state level (Ecology must review and approve the variance in addition to the City of Tukwila). This did not seem a reasonable process to require of so many property owners. ~~Since the proposed minimum buffer is the maximum reduction that could be approved under properties affected by the SAO, the triggers for compliance with the standards of the draft SMP serve as the way to achieve mitigation for the lower buffer width.~~ (D.R., 07/09).

The river bank in the Shoreline Residential Environment is typically in a modified and degraded state but generally not stabilized with revetments, dikes or levees. Based on an analysis of the river elevations and existing banks, a 50 foot minimum buffer in the Shoreline Residential Environment would allow room to achieve a 2.5:1 bank slope with an additional 20 foot setback from the top of the slope – a distance that will allow for bank stability and in-turn, protection of new structures from high flows, and bank failures. A schematic of the shoreline jurisdiction showing the buffer is provided in Figure 2.

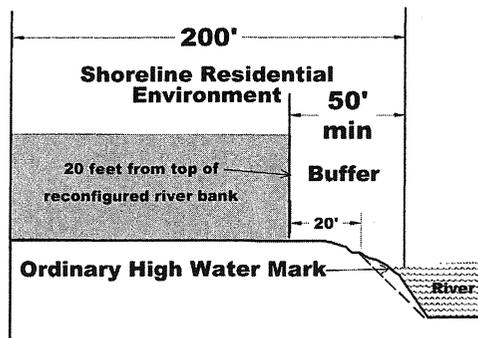


Figure 1. Schematic of Proposed Shoreline Residential Environment and Buffer

The proposed buffer area for the Shoreline Residential Environment will allow for removal of invasive plants, planting of native vegetation in the riparian zone and inclusion of other features to improve shoreline habitat. It also will prevent the placement of any structures in an area that could potentially prove unstable. In the event of bank erosion or slope failures, the buffer will provide sufficient space for re-sloping the bank to a more stable 2.5:1 slope, either through bank stabilization projects or through natural bank failures that result in the natural angle of repose (2.5:1) or greater (D.R. 07/09).

7.7 URBAN CONSERVANCY ENVIRONMENT

A. Designation Criteria: This environment will be designated in the area between the Ordinary High Water Mark and 200 feet landward as regulated under the Shoreline Management Act and applied to all shorelines of the river except the Shoreline Residential Environment and the High Intensity Environment. The Urban Conservancy Environment areas are currently developed with dense urban multifamily, commercial, industrial and/or transportation uses or are designated for such uses in the proposed south annexation area. This environment begins at the southern end of the Turning Basin and includes portions of the river where levees and revetments generally have been constructed and where the river is not navigable to large water craft. Uses will be restricted immediately adjacent to the river by establishment of a minimum protective buffer.

B. Purpose of Environment

The purpose of the Urban Conservancy Environment is to protect ecological functions where they exist in urban and developed settings, and restore ecological functions where they have been previously degraded, while allowing a variety of compatible uses.

C. Establishment of River Buffers

The Urban Conservancy ~~This~~ environment will have two different buffers, depending on the location along the river and whether or not the shoreline has a flood control levee. The purpose of Urban Conservancy River Buffers is to:

- Protect existing and restore degraded ecological functions of the open space, flood plain and other sensitive lands in the developed urban settings;
- Ensure no net loss of shoreline function when new development or re-development is proposed;
- Provide opportunities for restoration and public access;
- Allow for adequate flood and channel management to ensure protection of property, while accommodating shoreline habitat enhancement and promoting restoration of the natural character of the shoreline environment, wherever possible;
- Avoid the need for new shoreline armoring; and
- Protect existing and new development from high river flows.

Buffer in Non-Levee Areas:

A buffer width of 100 feet is established for the Urban Conservancy Environment for all non-residential areas without levees. This buffer width is consistent with that established by the City's Sensitive Areas Ordinance for Type 2 streams that support salmonid use, which is based on Best Available Science. In addition, as noted above, looking at the slope geometry and the difference in height between the ordinary high water mark and the 100-year flood elevation for these areas, it was found that a 100-foot setback distance is required to accommodate the slopes needed for bank stability.

SECTION 7.7

The buffer width of 100 feet allows enough room to reconfigure the river bank to achieve a slope of 2.5:1, the “angle of repose” or the maximum angle of a stable slope and allow for some restoration and improvement of shoreline function through the installation of native plants and other habitat features. The actual amount of area needed to achieve a 2.5:1 slope may be less than 100 feet, depending on the character of the river bank and can only be determined on a site-by-site basis.

As an alternative to the 100 foot buffer, a property owner may re-slope the river bank to 2.5:1, provide a 20 foot setback from the top of the new slope and vegetate both the river bank and the 20 foot setback area in accordance with the standards in the Vegetation Protection and Landscaping Section. Any buffer reduction proposal must demonstrate to the satisfaction of the Director that it will not result in direct, indirect or long-term adverse impacts to shoreline ecosystem function~~the river~~. **(D.R. 07/09)** In all cases a buffer enhancement plan must also be approved and implemented as a condition of the reduction. The plan must include removal of invasive plants, and plantings using a variety of native vegetation that improves the functional attributes of the buffer and provides additional protection for the watercourse functions.

In areas of the river where this condition currently exists or where the property owner has constructed these improvements, the buffer width will be the actual distance as measured from the ordinary high water mark to the top of the bank plus 20 feet.

The shoreline jurisdiction and buffers for the Urban Conservancy Environment are depicted in the schematic in Figures 3 and 4 below.

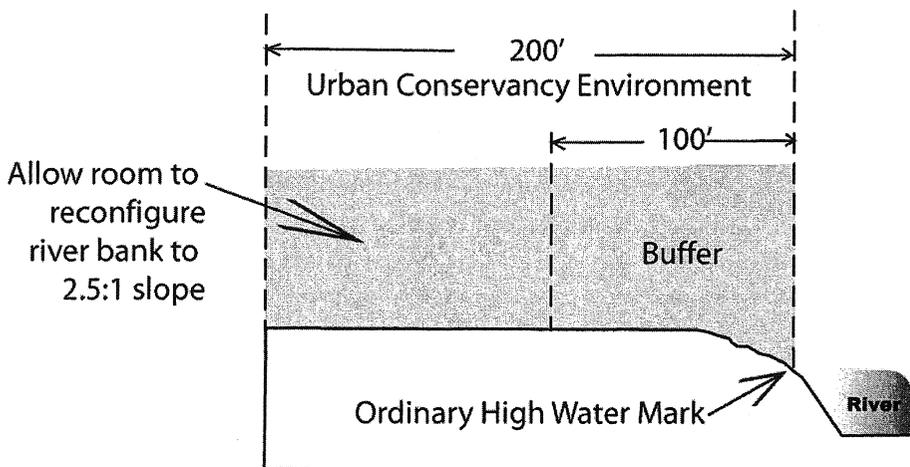


Figure 1. Schematic of Proposed Shoreline Jurisdiction and Buffers for the Urban Conservancy Environment in Areas without Levees

SECTION 7.7

Buffer in Levee Areas:

For properties located behind the Army Corps of Engineers (ACOE) Certified 205 levee and County constructed levees, the buffer will extend 125 feet landward from the ordinary high water mark, determined at the time of development or redevelopment of the site or when levee replacement or repair is programmed. This buffer width is the maximum needed to reconfigure the river bank to achieve an overall slope of 2.5:1, the "angle of repose" or the maximum angle of a stable slope. The establishment of the 2.5:1 slope along the Corps certified 205 levee in the Tukwila Urban Center will allow for incorporating a mid-slope bench that can be planted with vegetation to improve river habitat. The mid-slope bench also will allow access for maintenance equipment, when needed. As the Corps of Engineers does not permit planting on the levee prism, the only way to improve habitat along the 205 levee portion of the river is to create a bench that can be vegetated that will not create a hazard for the stability of the levee. A ten foot easement necessary to allow access for levee inspection is required on the landward side of the levee at the toe. As noted earlier, the ACOE has indicated the 2.5:1 levee profile with the mid-slope bench (D.R. 07/09) will be the template for future levee repairs.

As an alternative to the 125 foot buffer for leveed areas, a property owner may construct levee or riverbank improvements that meet the Army Corps of Engineers, King County Flood Control District, and City of Tukwila ~~levee standards~~ preferred levee profile. These standards at a minimum shall include an overall slope of 2.5:1 from the toe of the levee to the riverward edge of the crown, a 15 foot mid slope bench, ~~2018'~~ 15' access across the top of the levee, a 2:1 back slope, and an additional 10 foot no-build area measured from the landward toe for inspection and repairs. In instances where an existing building that has not lost its nonconforming status prevents the complete construction of the preferred levee profile, achieving an overall slope of 2.5:1 may be difficult – however, the slope should be as close to 2.5:1 as possible.

A floodwall is not the preferred back slope profile for a levee and may be substituted for all or a portion of the back slope only where necessary to avoid encroachment or damage to a structure legally constructed prior to the date of adoption of this Master Program and which has not lost its nonconforming status. The floodwall shall be designed to be the minimum necessary to provide 10' (ten foot) clearance between the levee and the building or the minimum necessary to preserve access needed for building functionality while meeting all engineering safety standards, provided that minor variations may be allowed in order to provide the 10' (ten foot) clearance. A floodwall may also be used, and other minor variations made, where necessary to avoid encroachment on a railroad easement.

In areas of the river where ~~this condition~~ the preferred levee profile currently exists or where the property owner or a government agency has constructed these ~~improvement~~ preferred profile, the ~~setback~~ buffer will be reduced to the actual distance as measured from the ordinary high water mark to the landward toe of the levee or face of a pre-existing floodwall, plus 10 feet. In the event that the owner provides the City with a 10-foot levee maintenance easement measured landward from the landward toe of the levee or levee wall (which easement prohibits the construction of any structures and allows the City to access the area to inspect the levee), then the buffer shall be reduced to the landward toe of the levee, or landward edge of the levee floodwall, as the case may

SECTION 7.7

be.

In cases where fill is placed along the back slope of the levee, the shoreline buffer may be further reduced to the point where the ground plane intersects the back slope. The area between the landward edge of the buffer and a point ten (10) feet landward of the underground levee toe shall be covered by an easement prohibiting the construction of any structures and allowing the City to access the area to inspect the levee and/or floodwall and make any necessary repairs.

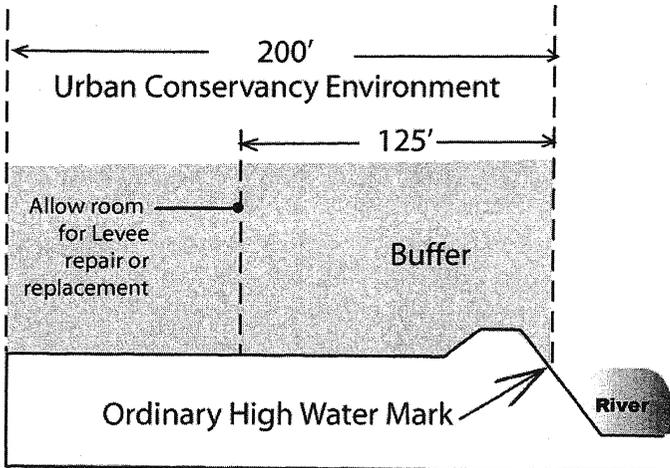
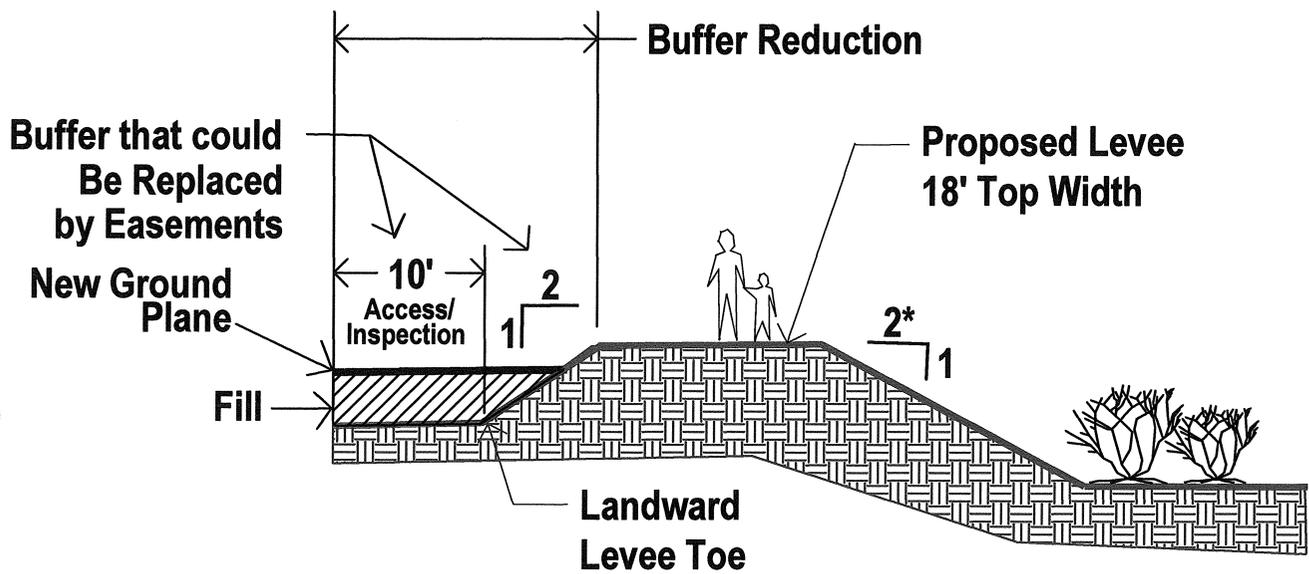


Figure 4. Schematic of Proposed Shoreline Jurisdiction and Buffers for the Urban Conservancy Environment in Areas with Levees



Buffer Reduction with Backfill Option
 Not To Scale

7.8 HIGH INTENSITY ENVIRONMENT

A. Designation Criteria: The High Intensity Shoreline Environment area is currently developed with high intensity urban commercial, industrial and/or transportation uses or is designated for such uses in the proposed north annexation area. This environment begins at the Ordinary High Water Mark and extends landward 200 feet and is located from the southern edge of the Turning Basin north to the City limits and includes the North PAA. This Environment is generally located along portions of the Duwamish River that are navigable to large watercraft. Uses will be restricted immediately adjacent to the river by establishment of a minimum protective buffer.

The transition zone is located partly in the High Intensity Environment. The transition zone is the location where freshwater from a river and saltwater from the marine salt wedge mix creating brackish conditions. Often it is also where the river widens, stream velocities decrease and estuarine mudflats begin to appear. Habitat associated with the transition zone is ~~critically~~ particularly (D.R. 07/09) important for juvenile Chinook and chum smolts making the transition to salt water. The transition zone moves upstream and downstream in response to the combination of stream flow and tidal elevations and as a result varies over a twenty-four hour period and seasonally. The transition zone is ~~ancrucial~~ extremely important habitat for salmonids. (D.R. 07/09)

B. Purpose of Environment and Establishment of River Buffer The purpose of the Urban High Intensity Environment is to provide for high intensity, commercial, transportation and industrial uses and to promote water dependent and water oriented uses while protecting existing shoreline ecological functions and restoring ecological functions in areas that have been previously degraded.

The purposes of the High Intensity River Buffer is to:

- Protect existing and restore degraded ecological functions of the open space, flood plain and other sensitive lands in the developed urban settings;
- Ensure no net loss of shoreline function when new development or re-development occurs;
- Provide opportunities for shoreline restoration and public access;
- Allow for adequate flood and channel management to ensure protection of property, while accommodating shoreline habitat enhancement and promoting restoration of the natural character of the shoreline environment, wherever possible;
- Avoid the need for new shoreline armoring; and
- Protect existing and new development from high river flows.

A buffer of 100 feet is established, which allows enough room to reconfigure the river bank to achieve a slope of 3:1, (starting at the OHWM rather than the toe) the “angle of repose” or the maximum angle of a stable slope and allow for some restoration and

HIGH INTENSITY ENVIRONMENT

improvement of shoreline function through the installation of native plants and other habitat features. The actual amount of area needed to achieve a 3:1 slope may be less than 100 feet, depending on the character of the river bank and can only be determined on a site-by-site basis.

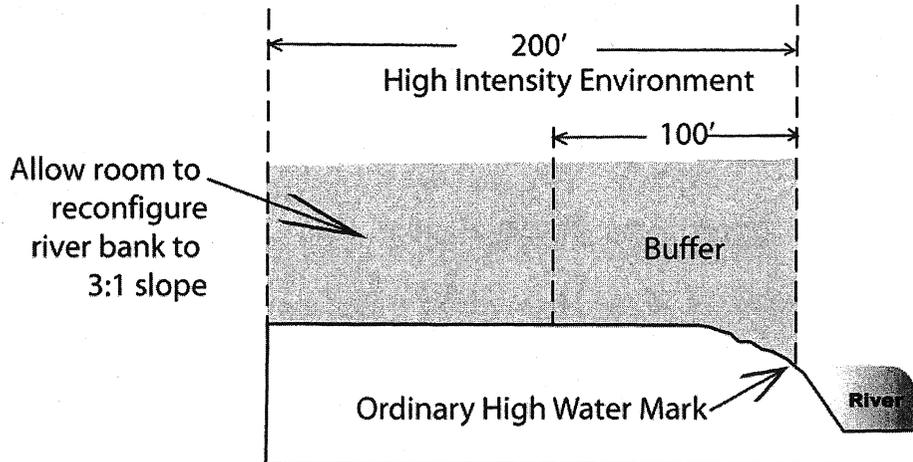


Figure 54. Schematic Showing the Proposed Shoreline Jurisdiction and Buffer for the High Intensity Environment

As an alternative to the 100 foot buffer, a property owner may re-slope the river bank to a maximum-3:1, provide a 20 foot setback from the top of the new slope and vegetate both the river bank and the 20 foot setback area in accordance with the standards in the Vegetation Protection and Landscaping Section. The property owner must also demonstrate that this approach will not result in a loss of ecological functions of the shoreline. In areas of the river where this condition currently exists or where the property owner has constructed these improvements, the buffer width will be the actual distance as measured from the Ordinary High Water Mark to the top of the bank plus 20 feet.

In any shoreline environment where an existing improved street or road runs parallel to the river through the buffer, the buffer would end on the river side of the street or road.

SECTION 8 SHORELINE USE REGULATIONS: SUMMARY SHEET

Technical Correction

Remove reference to Unclassified Use in the introductory paragraph as follows:

This section specifies the uses that are permitted outright, permitted as a Conditional Use, ~~Unclassified Use~~ or prohibited altogether for each Shoreline Environment. Also included are special conditions and general requirements controlling specific uses. These regulations are intended to implement the purpose of each Shoreline Environment designation adopted with this SMP and will be codified in TMC 18.44. Additional regulations and performance standards that apply to all Shoreline Environments are included in Sections 9-14 of this SMP. These will also be codified in TMC 18.44.

Staff Recommended Solution

Staff recommends the removal of this subsection to avoid confusion with the Shoreline Management Act use of the unclassified use process.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

8.1 GENERAL USE REGULATIONS 69

No changes proposed to PC Draft

8.2 SHORELINE RESIDENTIAL ENVIRONMENT -- USES 70

Technical Correction

Add two new permitted uses to the Shoreline Residential Buffer.

Regional detention facilities that meet the City's Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls;

Support facilities for above or below ground utilities or pollution control, such as runoff ponds, filter systems, detention ponds and outfall facilities, provided they are located at or below grade and as far from the OHWM as technically feasible;

Staff Recommended Solution

As will be seen below, staff is proposing to add regional detention facilities as a permitted use in the Urban Conservancy and High Intensity Environments as well as the Shoreline Residential Environment Buffer to ensure that this facility can be located should a project that meets the definition of a regional detention facility be proposed in the residential area. The second proposed new use would permit various support facilities to be located in the buffer – it could be anticipated that new support facilities would need to be located in the buffer sometime in the future – this would allow their location. Staff recommends the addition of both these uses to the Shoreline Residential Environment buffer.

SECTION 8 SHORELINE USE REGULATIONS: SUMMARY SHEET

Technical Correction

8.2 A.2. and 8.2 B.2 Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by this program~~TMC 18.62 and shall be reviewed through a Shoreline Conditional Use Permit:~~

Staff Recommended Solution

Striking the language noted above removes a reference to the Tukwila Municipal Code and avoids bringing that section into the SMP, which would then require review and approval of the section by Ecology.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

Technical Correction

~~8.2 A. 3. and 8.2. B.3. Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass transit facilities, limited to river crossing structures.~~

Staff Recommended Solution

Staff recommends the removal of these subsections to avoid confusion between the City’s unclassified uses and the Shoreline Management Act use of the unclassified use process.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

8.3 URBAN CONSERVANCY ENVIRONMENT -- USES 72

Technical Correction

Add a new permitted use to the Shoreline Urban Conservancy Buffer:

Regional detention facilities that meet the City’s Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls;

SECTION 8 SHORELINE USE REGULATIONS: SUMMARY SHEET

Staff Recommended Solution

Staff proposes the addition of this use as the buffer might be the most appropriate location for a regional detention facility – adding this proposed use would allow the location of that facility.

Technical Correction

8.3 A.2. and 8.3 B.2 Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by this program~~TMC 18.62 and shall be reviewed through a Shoreline Conditional Use Permit:~~

Staff Recommended Solution

Striking the language noted above removes a reference to the Tukwila Municipal Code and avoids bringing that section into the SMP, which would then require review and approval of the section by Ecology.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

Technical Correction

8.3 A. 3. and 8.3. B.3. ~~Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass transit facilities, limited to river crossing structures.~~

Staff Recommended Solution

Staff recommends the removal of these subsections to avoid confusion between the City’s unclassified uses and the Shoreline Management Act use of the unclassified use process.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

8.4 HIGH INTENSITY ENVIRONMENT -- USES74

Technical Correction

Add a new permitted use to the Shoreline Urban Conservancy Buffer.

Regional detention facilities that meet the City’s Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls;

SECTION 8 SHORELINE USE REGULATIONS: SUMMARY SHEET

Staff Recommended Solution

Staff proposes the addition of this use as the buffer might be the most appropriate location for a regional detention facility – adding this proposed use would allow the location of that facility.

Technical Correction

8.4 A.2. and 8.4 B.2 Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by this program~~TMC 18.62 and shall be reviewed through a Shoreline Conditional Use Permit:~~

Staff Recommended Solution

Striking the language noted above removes a reference to the Tukwila Municipal Code and avoids bringing that section into the SMP, which would then require review and approval of the section by Ecology.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

Technical Correction

~~8.4 A. 3. and 8.4. B.3. Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass transit facilities, limited to river crossing structures.~~

Staff Recommended Solution

Staff recommends the removal of these subsections to avoid confusion between the City's unclassified uses and the Shoreline Management Act use of the unclassified use process.

Issues Raised/Options Proposed

This issue was raised by the Department of Ecology in its letter dated 6/30/09.

SHORELINE USE REGULATIONS

This section specifies the uses that are permitted outright, permitted as a Conditional Use, ~~Unclassified Use~~ or prohibited altogether for each Shoreline Environment. Also included are special conditions and general requirements controlling specific uses. These regulations are intended to implement the purpose of each Shoreline Environment designation adopted with this SMP and will be codified in TMC 18.44. Additional regulations and performance standards that apply to all Shoreline Environments are included in Sections 9-14 of this SMP. These will also be codified in TMC 18.44.

8.1 General Use Regulations

- A. All shoreline uses shall meet the requirements listed below.
- B. The first priority for City-owned property within the shoreline jurisdiction shall be reserved for water-dependent uses including but not limited to habitat restoration, followed by water-enjoyment uses, public access, passive recreation, passive open space uses, or public educational purposes.
- C. No hazardous waste handling, processing or storage is allowed within the SMA shoreline jurisdiction, unless incidental to a use allowed in the designated shoreline environment and adequate controls are in place to prevent any releases to the shoreline/river.
- D. Overwater structures, shall not cause a net loss of ecological function, interfere with navigation or flood management, or present potential hazards to downstream properties or facilities. They shall comply with the standards in the Overwater Structures Section.
- E. Parking as a primary use is not permitted, except for existing Park and Ride lots, where adequate stormwater collection and treatment is in place to protect water quality. Parking is permitted only as an accessory to a permitted, conditional or unclassified use in the shoreline jurisdiction.
- F. All development, activities or uses unless it is an approved over water, flood management structure, or shoreline restoration project shall be prohibited waterward of the OHWM.

8.2 Shoreline Residential Environment --Uses

A. Shoreline Residential Buffer – Permitted Uses

The Shoreline Residential River Buffer shall consist of the area identified in the Shoreline Environment Designation Section of the SMP and the uses shall meet the

SECTION 8 PROPOSED REVISIONS

purposes and criteria established therein.

1. Permitted Uses: No uses or structures are permitted in the Shoreline Residential Buffer except for the following:
 - a. Shoreline Restoration Projects;
 - b. Over-water structures subject to the standards in the Over-water Structures section associated with water-dependent uses, public access, recreation, flood control or channel management. Private, single residence piers for the sole use of the property owner shall not be considered an outright use on the shoreline. A dock may be allowed when the applicant has demonstrated a need for moorage and that the following alternatives have been investigated and are not available or feasible:
 - 1). commercial or marina moorage;
 - 2). floating moorage buoys;
 - 3). joint use moorage pier/dock.
 - c. Public parks, recreation and open space;
 - d. Public pedestrian bridges
 - e. Public and/or private promenades, footpaths or trails;
 - f. Recreation structures such as benches, tables, viewpoints, and picnic shelters, provided no such structure shall exceed 15 feet in height or 25 square feet in area or block views to the shoreline from adjacent properties;
 - g. Signs conforming to the Sign Code;
 - h. Maintenance or redevelopment of levees for flood control purposes, provided a mid-slope vegetated bench and native plantings along the toe of the levee are incorporated into any redeveloped levee wherever feasible;
 - i. Vehicle bridges, only if connecting public rights-of-way;
 - j. Utility towers and utilities except the provision, distribution, collection, transmission or disposal of refuse;
 - k. Fire lanes when co-located with levee maintenance roads;
 - l. New shoreline stabilization utilizing the development standards in the Shoreline Stabilization section of this SMP.
 - m. Water dependent uses and their structures, as long as there is no net loss of shoreline ecological function;
 - n. Fences, provided the maximum height of a fence along the shoreline is four feet and the fence does not extend waterward beyond the top of the bank; chain link fences must be vinyl coated.
 - o. Existing essential streets, roads and rights of way may be maintained or improved;
 - p. Outdoor storage, only in conjunction with a water dependent use.
 - q. Essential public facilities, both above and below ground; and
 - r. Regional detention facilities that meet the City's Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls;

SECTION 8 PROPOSED REVISIONS

- s. Support facilities for above or below ground utilities or pollution control, such as runoff ponds, filter systems, detention ponds and outfall facilities, provided they are located at or below grade and as far from the OHWM as technically feasible;
 - f.t. Landfill as part of an approved remediation plan for the purpose of capping contaminated sediments; ~~and~~
 - s.u. Patios, or decks not exceeding 18-inches in height, limited to a maximum 200 square feet and 50% of the width of the river frontage. Decks or patios must be located landward of the top of the bank and be constructed to be pervious and of environmentally friendly materials.
2. Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by this program ~~TMC 18.62 and shall be reviewed through a Shoreline Conditional Use Permit:~~
- a. Dredging activities when in compliance with all federal and state regulations, when necessary for navigation or remediation of contaminated sediments.
 - b. Dredging for navigational purposes is permitted where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. Maintenance dredging of established navigation channels and basins is restricted to maintaining previously dredged and/or existing authorized location, depth and width. Dredging of bottom materials for the purpose of obtaining fill material is prohibited.
 - c. New private vehicle bridges.
- ~~3. Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline Residential buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass transit facilities, limited to river crossing structures.~~

B. Shoreline Residential Environment -- Uses

The Shoreline Residential Environment shall consist of the remaining area within the 200 foot shoreline jurisdiction that is not within the Shoreline Residential River Buffer. Uses shall meet the purposes and criteria of the Shoreline Residential Development Zone as established in the Shoreline Environment Designation section.

1. Permitted Uses: The Shoreline Residential Environment shall contain residential, recreational and limited commercial uses and accessory uses as allowed in the underlying zoning district. In addition, the Shoreline Residential Environment shall allow the following uses:
- a. All uses permitted in the Shoreline Residential River Buffer;
 - b. For non-residential uses, parking/loading and storage facilities located

SECTION 8 PROPOSED REVISIONS

to the most upland portion of the property and adequately screened and/or landscaped in accordance with the Vegetation Protection and Landscaping section;

- c. Railroad tracks; and
- d. Public or private roads.

2. Conditional uses: All uses listed as conditional uses in the Shoreline Use Table ~~underlying zone may be allowed~~ subject to the requirements, procedures and conditions established by this program. ~~TMC 18.62. A Shoreline Conditional Use Permit is required.~~

3. ~~Unclassified Uses: All uses listed as Unclassified Uses in the underlying zone may be allowed subject to the requirements, procedures and conditions established by TMC 18.64 and shall require a Shoreline Unclassified Use Permit.~~

8.3 Urban Conservancy Environment -- Uses

The Urban Conservancy Environment shall consist of the areas identified in the Shoreline Environment Designations sections of this SMP. Uses shall meet the purposes and criteria of the Urban Conservancy Environment established therein.

A. Urban Conservancy Environment Buffer – Uses

1. Permitted uses: The following uses are permitted in the Urban Conservancy River Buffer:
 - a. Shoreline Restoration Projects.
 - b. Over-water structures subject to the standards established in the Over-water Structures Section that are associated with water-dependent uses, public access, recreation, flood control, channel management or ecological restoration;
 - c. Public parks, recreation and open space
 - d. Public and/or private promenades, footpaths or trails;
 - e. Public pedestrian bridges;
 - f. Recreation structures such as benches, tables, viewpoints, and picnic shelters, provided no such structure shall exceed 15 feet in height and 25 square feet in area and views of the shoreline are not blocked from adjacent properties;
 - g. Signs conforming to the Sign Code;
 - h. Maintenance or redevelopment of levees for flood control purposes, provided that any redevelopment of a levee shall incorporate a mid-slope vegetated bench wherever feasible;
 - i. New vehicle bridges: permitted only if connecting public rights-of-way; existing public or private vehicle bridges may be maintained or replaced.

SECTION 8 PROPOSED REVISIONS

- j. Utility towers and utilities except the provision, distribution, collection, transmission or disposal of refuse;
 - k. Levee maintenance roads;
 - l. Plaza connectors between buildings and levees, not exceeding the height of the levee, are permitted for the purpose of providing and enhancing pedestrian access along the river and for landscaping purposes.
 - m. New shoreline stabilization utilizing the development standards in the Shoreline Stabilization Section.
 - n. Existing essential streets, roads and rights of way may be maintained or improved.
 - o. Water dependent commercial and industrial development, if permitted by the underlying zoning district;
 - p. Regional detention facilities that meet the City's Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls.
 - ~~p-q.~~ Support facilities for above or below ground utilities or pollution control, such as runoff ponds, filter systems, detention ponds and outfall facilities, provided they are located at or below grade and as far from the OHWM as technically feasible;
 - ~~q-r.~~ Outdoor storage, only in conjunction with a water dependent use.
 - ~~r-s.~~ Essential public facilities, both above and below ground.
 - ~~s-t.~~ Landfill as part of an approved remediation plan for the purpose of capping contaminated sediments.
2. Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline Urban Conservancy Environment buffer subject to the requirements, procedures and conditions established by this program TMC 18.62 and shall be reviewed through a Shoreline Conditional Use Permit:
- a. Dredging activities where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided;
 - b. Dredging for remediation of contaminated sediments when mitigation is provided. Dredging of bottom materials for the purpose of obtaining fill material is prohibited. Dredging activities must comply with all federal and state regulations.
 - c. New private vehicle bridges.
- ~~3. Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline Urban Conservancy Environment buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass Transit Facilities, limited to river crossing structures only. A Shoreline Unclassified Use Permit shall be required.~~

SECTION 8 PROPOSED REVISIONS

B. Urban Conservancy Environment -- Uses

1. Permitted Uses: All uses permitted in the Urban Conservancy Environment Buffer and/or the underlying zoning district may be allowed.
2. Conditional Uses: All uses listed as Conditional Uses in the Shoreline Use Table ~~underlying zone~~ may be allowed, subject to the requirements, procedures and conditions of this program ~~established by TMC 18.64~~. ~~A Shoreline Conditional Use Permit shall be required.~~
3. ~~Unclassified Uses: All uses listed as Unclassified Uses in the underlying zone may be allowed subject to the requirements, procedures and conditions established by TMC 18.66. A Shoreline Unclassified Use Permit shall be required.~~

8.4 High Intensity Environment -- Uses

The High Intensity Environment Buffer shall consist of the area identified in the Shoreline Environment Designations section. Uses shall meet the purposes and criteria of established therein.

High Intensity Environment Buffer -- Uses

1. Permitted uses: The following uses are permitted in the High Intensity River Buffer:
 - a. Shoreline Restoration Projects.
 - b. Over-water structures subject to the standards established in the Over-water Structures Section that are associated with water-dependent uses, public access, recreation, flood control, channel management or ecological restoration;
 - c. Public parks, recreation and open space;
 - d. Public and/or private promenades, footpaths or trails;
 - e. Public pedestrian bridges;
 - f. Recreation structures such as benches, tables, viewpoints, and picnic shelters, provided no such structure shall exceed 15 feet in height and 25 square feet in area and no views of the shoreline are blocked from adjacent properties;
 - g. Signs conforming to the Sign Code;
 - h. Maintenance or redevelopment of levees for flood control purposes, provided that any redevelopment of a levee shall incorporate a vegetated bench wherever feasible;
 - i. New vehicle bridges: permitted only if connecting public rights-of-way; existing public or private vehicle bridges may be maintained or replaced.
 - j. Utility towers and utilities except the provision, distribution,

SECTION 8 PROPOSED REVISIONS

- collection, transmission or disposal of refuse;
- k. Levee maintenance roads;
 - l. Plaza connectors between buildings and levees, not exceeding the height of the levee, are permitted for the purpose of providing and enhancing pedestrian access along the river and for landscaping purposes.
 - m. New shoreline stabilization utilizing the development standards in the Shoreline Stabilization section of this SMP.
 - n. Existing essential streets, roads and rights of way may be maintained or improved.
 - o. Water dependent commercial and industrial development, if permitted by the underlying zoning district;
 - p. Regional detention facilities that meet the City's Infrastructure Design and Construction Standards along with their supporting elements such as ponds, piping, filter systems and outfalls.
 - ~~p.q.~~ Support facilities for above or below ground utilities or pollution control, such as runoff ponds, filter systems, detention ponds and outfall facilities, provided they are located at or below grade and as far from the OHWM as technically feasible;
 - ~~q.r.~~ Outdoor storage, only in conjunction with a water dependent use.
 - ~~r.s.~~ Essential public facilities, both above and below ground.
 - ~~s.t.~~ Landfill as part of an approved remediation plan for the purpose of capping contaminated sediments.
2. Conditional Uses: Only the following may be allowed as a Conditional Use in the Shoreline High Intensity Environment buffer subject to the requirements, procedures and conditions of this program, established by TMC 18.62. ~~A Shoreline Conditional Use Permit shall be required.~~
- a. Dredging activities where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided;
 - b. Dredging for remediation of contaminated sediments when mitigation is provided. Dredging of bottom materials for the purpose of obtaining fill material is prohibited. Dredging activities must comply with all federal and state regulations.
 - c. New private vehicle bridges.
- ~~3. Unclassified Uses: Only the following may be allowed as an Unclassified Use in the Shoreline High Intensity Environment buffer subject to the requirements, procedures and conditions established by TMC 18.64: Mass Transit Facilities, limited to river crossing structures only.~~

SECTION 8 PROPOSED REVISIONS

B. Shoreline Urban High Intensity Environment-- Uses

The Shoreline High Intensity Environment shall consist of the remaining area within the 200 foot shoreline jurisdiction that is not within the Shoreline High Intensity Environment Buffer area. Uses shall meet the purposes and criteria of the Shoreline Environment Designations section.

1. Permitted Uses: All uses permitted in the High Intensity Environment Buffer and/or the underlying zoning district may be allowed.
2. Conditional Uses: All uses listed as Conditional Uses in the Shoreline Use Table ~~underlying zone~~ may be allowed subject to the requirements, procedures and conditions established by this program. ~~TMC 18.64. A Shoreline Conditional Use Permit shall be required.~~
3. ~~Unclassified Uses: All uses listed as Unclassified Uses in the underlying zone may be allowed subject to the requirements, procedures and conditions established by TMC 18.64. A Shoreline Unclassified Use Permit shall be required.~~

SECTION 9 SHORELINE DEVELOPMENT STANDARDS: SUMMARY SHEET

9.1 APPLICABILITY 77

Technical Correction

Replace “pre-existing” terminology with “nonconforming.”

Staff Recommended Solution

Staff recommends returning to the terminology of nonconforming use and nonconforming structure, as this terminology is recognized by the SMA and less confusing to users of the SMP.

9.2 SHORELINE RESIDENTIAL DEVELOPMENT STANDARDS 77

Technical Correction

9.2 A. 1. Delete language that makes direct references to underlying zoning code sections.

Staff Recommended Solution

SMP is an overlay district so it will work in conjunction with the underlying zoning. Referencing the underlying zoning code will require Ecology review and approval of that language and an amendment of the SMP if the underlying zoning language is changed.

Technical Correction

9.2.C: Clarify why the 45 ft. height limit is included in the SMP.

Staff Recommended Solution

Staff proposes the following language:

C. Height Restrictions

Except for bridges, approved above ground utility structures, and water dependent uses and their structures, to preserve visual access to the shoreline and avoid massing of tall buildings within the shoreline jurisdiction the maximum height for structures shall be as follows:

1. 15 feet where located within the River Buffer;
2. 45 feet between the outside landward edge of the River Buffer and 200' of the OHWM.

Provided, no permit shall be issued for any new or expanded building or structure of more than 35 feet above average grade level on shorelines of the state that will obstruct the view of a substantial number of residences on areas adjoining such shorelines.

Technical Correction

Remove reference to underlying zoning code in Section 9.2 D.

SECTION 9 SHORELINE DEVELOPMENT STANDARDS: SUMMARY SHEET

Staff Recommended Solution

9.2.D: ~~In addition to the lighting standards in the TMC 18.60, Design Guidelines, Lighting~~ for the site or development shall be designed and located so that:....

SMP is an overlay district so it will work in conjunction with the underlying zoning. Referencing the underlying zoning code will require Ecology review and approval of that language and an amendment of the SMP if the underlying zoning language is changed.

9.3 HIGH INTENSITY AND URBAN CONSERVANCY ENVIRONMENT DEVELOPMENT STANDARDS 78

Technical Correction

9.3. A.1. Delete references to underlying zoning code.

Staff Recommended Solution

SMP is an overlay district so it will work in conjunction with the underlying zoning. Referencing the underlying zoning code will require Ecology review and approval of that language and an amendment of the SMP if the underlying zoning language is changed.

9.4 SURFACE AND WATER QUALITY 80

No changes proposed to Planning Commission Recommended Draft SMP

9.5 FLOOD HAZARD REDUCTION 80

Technical Correction

Correct references to approval agencies.

F. ~~New structural flood hazard reduction measures, such as levees, berms and similar flood control structures shall be placed landward of the floodway as determined by the U.S. Army corps of Engineers and the State of Washington, Department of Ecology~~ best available information.

Staff Recommended Solution

This correction was suggested by the Department of Ecology in its 6/30/09 comments.

Technical Correction

H. No commercial, industrial, office or residential development shall be located within a floodplain without a Flood Control Zone Permit issued by the City. No development shall be located within a floodway except as otherwise permitted.

Staff Recommended Solution

This correction was suggested by Jeff Weber, Exhibit 14, (letter dated 5/28/09) to avoid conflicting with another section of Tukwila’s Municipal Code, TMC 16.52, the City’s flood plain management

SECTION 9 SHORELINE DEVELOPMENT STANDARDS: SUMMARY SHEET

ordinance. Staff has revised Mr. Webber’s suggested language to avoid references to specific sections of the underlying TMC.

Exhibit Reference/Subject Property

Exhibit 14, letter from Jeff Weber, Gordon Derr dated 5/28/09.

9.6 SHORELINE STABILIZATION 82

No changes proposed to Planning Commission Recommended Draft SMP

9.7 ARCHAEOLOGICAL, CULTURAL AND HISTORICAL RESOURCES 84

Technical Correction

Technical corrections to strengthen protection of archaeological resources in the shoreline jurisdiction.

Staff Recommended Solution

Staff recommends the corrections identified on the attached Section 9.7, which address concerns raised by Department of Ecology comments in their letter dated 6/30/09.

Exhibit Reference/Subject Property

Department of Ecology letter dated 6/30/09.

9.8 ENVIRONMENTAL IMPACT MITIGATION 85

No changes proposed to Planning Commission Recommended Draft SMP

9.9 OFF STREET PARKING AND LOADING REQUIREMENTS 86

No changes proposed to Planning Commission Recommended Draft SMP

9.10 VEGETATION PROTECTION AND LANDSCAPING 87

Technical Correction

See attached Section 9.10 for staff proposed revisions to clarify certain provisions of this section and to respond to Councilmember requests.

Staff Recommended Solution

Staff recommends the technical corrections identified on the attached Section 9.10 .

SECTION 9 SHORELINE DEVELOPMENT STANDARDS: SUMMARY SHEET

Policy Question Section 9.10 C. 1.

Should Section 9.10 C. 1. incorporate a proportionality test for the vegetation and landscaping requirements?

Staff Recommended Solution

Testimony was received from several parties that the SMP should include a proportionality test for vegetation and landscaping requirements. Staff recommends the language below to address this issue:

9.10 C. Landscaping

This section presents landscaping standards for the Shoreline Jurisdiction and is divided into a general section and separate sections for the River Buffer and for the remaining part of the Shoreline Jurisdiction for each Environment Designation.

1. General Requirements

a. The landscaping requirements of this subsection apply for any new development or redevelopment in the Shoreline Jurisdiction, except: single family residential development of 4 or fewer lots. The extent of landscaping required will depend on the size of the proposed project. New development or full redevelopment of a site will require landscaping of the entire site. For smaller projects, the Director will review the intent of this section and the scope of the project to determine a reasonable amount of landscaping to be carried out.

Issues Raised/Options Proposed

See Verbal comment # 2, 4, 8, 11, Exhibits 2, 6, 7, 8, 12, 13, 20, 21, 25.

9.11 LAND ALTERING ACTIVITIES 95

No changes proposed to Planning Commission Recommended Draft SMP

9.12 MARINAS, BOAT YARDS, DRY DOCKS, BOAT LAUNCHES, PIERS, DOCKS AND OTHER OVERWATER STRUCTURES 96

Technical Corrections

See Section 9.12 A.6 to require approval from Washington Department of Fish and Wildlife for any preservatives used on in water structures.

Staff Proposed Changes

1. Pilings or other associated structures in direct contact with water shall not be treated with preservatives unless the applicant can demonstrate that no feasible alternative to protect the materials exists and that non-wood alternatives are not economically feasible. In that case, only compounds approved for marine use may be used and must be applied by the manufacturer per

SECTION 9 SHORELINE DEVELOPMENT STANDARDS: SUMMARY SHEET

current best management practices of the Western Wood Preservers Institute. The applicant must present verification that the best management practices were followed. The preservatives must also be approved by the Washington Department of Fish and Wildlife.

Issues Raised/Options Proposed

The proposed revisions proposed in this subsection are in response to: Department of Ecology letter dated 6/30/09; Jeff Weber letter dated 5/28/09 as well as staff initiated.

Technical Correction

Department of Ecology commented on the need to to remove maximum width for over water structure and substitute language limiting it to the maximum width needed for floating dock stability.

Staff Proposed Changes

Staff proposes the following revisions to respond to the Department of Ecology comments:

D. Over-water Structures

Where allowed, over-water structures such as piers, wharves and docks shall meet the following standards:

~~1. The size of new over-water structures shall be limited to the minimum necessary to support the structure's intended use and to provide stability in the case of floating docks. Structures must be compatible with any existing channel control or flood management structures. No dock or pier on residential properties, including finger pier, moorage or over water structure or device shall be wider than four feet.~~

1.

Staff Recommended Solution

Staff recommends the proposed revisions to Section 9.

Staff Proposed Revisions to Section 9.5

9.5 Flood Hazard Reduction

The following standards apply to all shoreline development.

A. New structural flood hazard reduction structures shall be allowed only when it can be demonstrated by a Riverbank Analysis that:

1. They are necessary to protect existing development;
2. Non-structural measures are not feasible; and
3. Impacts to ecological functions and priority species and habitats can be successfully mitigated so as to assure no net loss.

Flood hazard structures must incorporate appropriate vegetation restoration and conservation actions consistent with the standards of the Vegetation Protection and Landscaping Section.

B. Levees, berms and similar flood control structures, whether new or redeveloped, shall be designed in such a way as to ensure structural stability while incorporating mid-slope benches planted with native vegetation suitable for wildlife habitat wherever feasible. Where not feasible to incorporate a mid-slope bench with vegetation, other appropriate habitat improvements must be provided.

C. Publicly funded structural measures to reduce flood hazards shall improve public access or dedicate and provide public access unless public access improvements would cause unavoidable health or safety hazards to the public, inherent and unavoidable security problems, or significant ecological impacts that cannot be mitigated.

D. Rehabilitation or replacement of existing flood control structures, such as levees, with a primary purpose of containing the 1-percent annual chance flood event, shall be allowed where it can be demonstrated by an engineering analysis that the existing structure:

1. Does not provide an appropriate level of protection for surrounding lands; or
2. Does not meet appropriate engineering design standards for stability (e.g., over-steepened side slopes for existing soil and/or flow conditions); and
3. Repair of the existing structure will not cause or increase significant adverse ecological impacts to the shoreline.

E. Rehabilitated or replaced flood control structures must achieve a maximum side slope angle of 2.5:1 (H:V) or if that is not possible, achieve an angle as close to 2.5:1 as possible. Rehabilitated or replaced structures shall not extend the toe of slope any further waterward of the OHWM than the existing structure.

F. New structural flood hazard reduction measures, such as levees, berms and similar flood control structures shall be placed landward of the floodway as determined by the

Staff Proposed Revisions to Section 9.5

U.S. Army Corps of Engineers and the State of Washington, Department of Ecology best available information. (Department of Ecology suggestion)

G. New, redeveloped or replaced structural flood hazard reduction measures shall be placed landward of associated wetlands, and designated fish and wildlife habitat conservation areas.

H. No commercial, industrial, office or residential development shall be located within a floodplain without a Flood Control Zone Permit issued by the City. No development shall be located within a floodway, except as otherwise permitted.

9.7 ARCHAEOLOGICAL, CULTURAL AND HISTORICAL RESOURCES

In addition to the requirements of TMC 18.50.110, Archaeological/Paleontological Information Preservation Requirements, the following regulations apply.

A. All land use permits for projects within the shoreline jurisdiction shall be coordinated with affected tribes.

B. If the City determines that a site has significant archaeological, natural scientific or historical value, a substantial development that would pose a threat to the resources of the site shall not be approved. ~~The City may require that development be postponed in such areas to allow investigation of public acquisition potential, retrieval and preservation of significant artifacts and/or development of a mitigation plan.~~

C. Permits issued in areas documented to contain archaeological resources require a site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes. The City may require that development be postponed in such areas to allow investigation of public acquisition potential, retrieval and preservation of significant artifacts and/or development of a mitigation plan. Areas of known or suspected archaeological middens shall not be disturbed and shall be fenced and identified during construction projects on the site.

D. Developers and property owners shall immediately stop work and notify the City of Tukwila, the Washington Department of Archaeology and Historic Preservation and affected Indian tribes if archaeological resources are uncovered during excavation.

~~C.E.~~ In the event that unforeseen factors constituting an emergency, as defined in RCW 90.58.030, necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from any shoreline permit requirements. The City shall notify the Washington State Department of Ecology, the State Attorney General's Office and the State Department of Archaeology and Historic Preservation Office of such an exemption in a timely manner.

~~D.F.~~ Archaeological excavations may be permitted subject to the provision of the Master Program.

~~E.G.~~ On sites where ~~Identified~~ historical or archaeological resources have been identified and will be preserved in situ, ~~shall be considered in park, open space and public access site planning with public access to such areas shall be~~ designed and managed so as to give maximum protection to the resource and surrounding environment.

~~F.H.~~ Interpretive signs of historical and archaeological features shall be provided subject to the requirements of the Public Access Section when such signage does not compromise the protection of these features from tampering, damage and/or destruction.

STAFF PROPOSED REVISIONS SECTION 9.7 ARCHAEOLOGICAL, CULTURAL AND HISTORICAL RESOURCES

~~F. Areas of known or suspected archaeological middens shall not be disturbed and shall be fenced and identified during construction projects on the site.~~

9.10 VEGETATION PROTECTION AND LANDSCAPING

A. Purpose, Objectives and Applicability

1. The purpose of this section is to:
 - a. Regulate the protection of existing trees and native vegetation in the shoreline jurisdiction;
 - b. Establish requirements for removal of invasive plants at the time of development or re-development of sites;
 - c. Establish requirements for landscaping for new development or re-development;
 - d. Establish requirements for the long-term maintenance of native vegetation to prevent establishment of invasive species and promote shoreline ecosystem processes.

2. The City's goal is to preserve as many existing trees as possible and increase the number of native trees, shrubs and other vegetation in the shoreline because of their importance to shoreline ecosystem functions as listed below:
 - a. Overhead tree canopy to provide shade for water temperature control;
 - b. Habitat for birds, insects and small mammals;
 - c. Vegetation that overhangs the river to provide places for fish to shelter;
 - d. Source of insects for fish;
 - e. Filtering of pollutants and slowing of stormwater prior to its entering the river; and
 - f. A long-term source of woody debris for the river.

In addition, trees and other native vegetation are important for aesthetics – it is the City's goal that unsightly invasive vegetation, such as blackberries, be removed from the shoreline and be replaced with native vegetation to promote greater enjoyment of and access to the river.

The City will provide information and technical assistance to property owners for improving vegetation in the shoreline jurisdiction and will work collaboratively with local citizen groups to assist property owners in the removal of invasive vegetation and planting of native vegetation, particularly for residential areas.

3. With the exception of residential development/re-development of 4 or fewer residential units, all activities and developments within the shoreline environment must comply with the landscaping and maintenance requirements of this section, whether or not a shoreline substantial development permit is required. Single family residential projects are not exempt if implementing a shoreline stabilization or overwater structure project on the shoreline.

4. The tree protection and retention requirements and the vegetation

SECTION 9.10 STAFF PROPOSED REVISIONS

management requirements apply to existing uses as well as new or re-development.

B. Tree Protection and Retention

1. As many significant trees and as much native vegetation as possible are to be retained on a site proposed for development or re-development, taking into account the condition and age of the trees. As part of design review, the Director of Community Development or the Board of Architectural Review may require alterations in the arrangement of buildings, parking or other elements of proposed development in order to retain significant non-invasive trees, particularly those that provide shading to the river. Trees located on properties not undergoing development or re-development may not be removed except those that interfere with access and passage on public trails or that present an imminent hazard to existing structures or the public. If the hazard is not readily apparent, the City may require an evaluation by an International Society of Arborists (ISA)-certified arborist.
2. To protect the ecological functions that trees and native vegetation provide to the shoreline, removal of any significant tree in the shoreline jurisdiction or native vegetation in the buffer requires a Shoreline Tree Removal and Vegetation Clearing Permit and is generally only allowed on sites undergoing development or redevelopment. Only trees that interfere with access and passage on public trails or trees that present an imminent hazard to existing structures or the public may be removed from sites without an issued building permit or Federal approval. Factors that will be considered in approving tree removal include but are not limited to: tree condition and health, age, risks to structures, and potential for root or canopy interference with utilities.
3. Prior to any tree removal or site clearing, a Type 2 Shoreline Tree Removal and Vegetation Clearing Permit application must be submitted to DCD containing the following information:
 - a) A vegetation tree-survey that shows the diameter, species and location of all significant trees and all existing native vegetation on a site plan;
 - b) A site plan that shows trees and native vegetation to be retained and trees to be removed and provides a table showing the number of significant trees to be removed and the number of replacement trees required;
 - c) Tree protection zones and other measures to protect any trees that are to be retained for sites undergoing development or re-development;
 - d) Location of the OHWM, river buffer, shoreline jurisdiction boundary and any sensitive areas with their buffers;
 - e) A landscape plan that shows diameter, species name, spacing and planting location for any required replacement trees and other proposed vegetation;
 - f) An arborist evaluation justifying the removal of hazardous trees if required by the Department; and

SECTION 9.10 STAFF PROPOSED REVISIONS

- g) An application fee per the current Land Use Permit Fee resolution.
- 4. Where permitted, significant trees that are removed from the shoreline shall be replaced pursuant to the replacement ratios in Table 4 up to a density of 100 trees per acre (including existing trees). The Director or Planning Commission may require additional trees or shrubs to be installed to mitigate any potential impact from the loss of this vegetation as a result of new development.

Table 4. Tree Replacement Requirements

Diameter* of Tree Removed	No. of Replacement Trees Required
4-6 inches (single trunk) 2 inches (any trunk of a multi-trunk tree)	3
Over 6 – 8 inches	4
Over 8 – 20 inches	6
Over 20 inches	8

* measured at height of 4 feet from the ground

- 5. If all replacement trees cannot be reasonably accommodated on the site, off-site tree replacement within the shoreline jurisdiction may be allowed at a site approved by the City. Priority for off-site tree planting will be at locations within the Transition Zone (D. Robertson 8/11/09). If no suitable off-site location is available, the applicant shall pay into a tree replacement fund. The fee shall be based on the value of the replacement trees and their delivery, labor for site preparation and plant installation, soil amendments, mulch, and staking supplies.
- 6. When a tree is permitted to be removed from the shoreline buffer, the tree trunk and root ball will be saved for use in a restoration project elsewhere in the shoreline jurisdiction. The applicant will be responsible for the cost of moving the removed trees to a location designated by the City. If no restoration project or storage location is available at the time, the Director may waive this requirement. ~~may require the placement and anchoring of removed trees as habitat features along the river bank for development of over 4 residential lots and all non-residential development, as permitted by shoreline conditions, and taking into account potential hazards to boaters, and in accordance with Washington Department of Fish and Wildlife Hydraulics Authorization and Corps of Engineers permit conditions. When conditions prevent placement of tree trunks on site along the shoreline as large woody debris, the City shall attempt to find an off-site location for eventual placement as part of a restoration project. The applicant will be responsible for the cost of the initial moving of the removed trees to the designated location. Trees removed in the shoreline jurisdiction outside the buffer shall either be placed as large woody debris in non-bank portion of the buffer (not on the bank), or if not feasible, transported to a location designated by the City for future use in a restoration project. Priority for LWD placement projects will be in the Transition Zone (D.R. 8/11/09)~~

SECTION 9.10 STAFF PROPOSED REVISIONS

7. Dead or dying trees located within the buffer or undeveloped upland portion of the shoreline jurisdiction shall be left in place as wildlife snags, unless they present a hazard to structures, facilities or the public.
8. Topping of trees is prohibited unless absolutely necessary to protect overhead utility lines. Topping of trees will be regulated as removal and tree replacement will be required.
9. For new development or redevelopment where trees are proposed for retention, tree protection zones shall be indicated on site plans and shall be established in the field prior to commencement of any construction or site clearing activity. A minimum 4 ft high construction barrier shall be installed around significant trees and stands of native trees or vegetation to be retained. Minimum distances from the trunk for the construction barriers shall be based on the approximate age of the tree (height and canopy) as follows¹:
 - a. Young trees (have reached less than 20% of life expectancy): 0.75 feet per inch of trunk diameter
 - b. Mature trees (have reached 20 – 80% of life expectancy): 1 foot per inch of trunk diameter.
 - c. Over mature trees (have reached greater than 80% of life expectancy): 1.5 feet per inch of trunk diameter.

C. Landscaping

This section presents landscaping standards for the Shoreline Jurisdiction and is divided into a general section and separate sections for the River Buffer and for the remaining part of the Shoreline Jurisdiction for each Environment Designation.

1. General Requirements

- a. The landscaping requirements of this subsection apply for any new development or redevelopment in the Shoreline Jurisdiction, except: single family residential development of 4 or fewer lots. The extent of landscaping required will depend on the size of the proposed project. New development or full redevelopment of a site will require landscaping of the entire site. For smaller projects, the Director will review the intent of this section and the scope of the project to determine a reasonable amount of landscaping to be carried out.
- b. Invasive vegetation must be removed as part of site preparation and native vegetation planted and maintained in the River Buffer, including the river bank, to improve the ecological functions of the shoreline.
- c. On properties located behind publicly maintained levees, property owners will not be responsible for removal of invasive vegetation, or planting of native vegetation within the buffer. (K.Hougardy,

¹ Modified from: Trees and Development, A Technical Guide to Preservation of Trees During Land Development, , Nelda Metheny and James R. Clark, 1998.

SECTION 9.10 STAFF PROPOSED REVISIONS

8/11/09

- d. Removal of invasive species shall be done by hand or with hand-held power tools. Where not feasible and mechanized equipment is needed, the applicant must obtain a Shoreline Tree Removal and Vegetation Clearing Permit and show how the slope stability of the bank will be maintained and a plan must be submitted indicating how the work will be done and what erosion control and tree protection features will be utilized. Federal and State permits may be required for vegetation removal with mechanized equipment.
 - e. Trees and other vegetation shading the river shall be retained or replanted when riprap is placed per the approved tree permit, if required.
 - f. Removal of invasive vegetation may be phased over several years prior to planting if part of an approved plan to allow for alternative approaches, such as sheet mulching and goat grazing. The method selected shall not destabilize the bank or cause erosion.
 - g. A combination of native trees, shrubs and groundcovers (including grasses, sedges, rushes and vines) shall be planted. The plants listed in the Riparian Restoration and Management Table of the 2004 Washington Stream Habitat Restoration Guidelines² (as amended) shall provide the basis for plant selection. Site conditions, such as topography, exposure, and hydrology shall be taken into account for plant selection. Other species may be approved if there is adequate justification.
 - h. Non-native trees may be used as street trees in cases where conditions are not appropriate for native trees (for example where there are space or height limitations or conflicts with utilities).
 - i. Plants shall meet the current American Standard for Nursery Stock (American Nursery and Landscape Association – ANLA).
 - j. Plant sizes in the non-buffer areas of all Shoreline Environments shall meet the following minimum size standards:

Deciduous trees:	2" caliper
Conifers:	6-8' height.
Shrubs:	24" height
Groundcover/grasses:	4-inch or 1 gallon container
- Smaller plant sizes (generally one gallon, bareroot, plugs, or stakes, depending on plant species) are preferred for buffer plantings. Willow stakes must be at least ½-inch in diameter.
- k. Site preparation and planting of vegetation shall be in accordance with best management practices for ensuring the vegetation's long-term health and survival.
 - l. Plants may be selected and placed to allow for public and private view corridors and/or access to the water's edge.

² Washington Department of Fish and Wildlife, Washington Department of Ecology, and US Fish and Wildlife Service, Olympia, Washington

SECTION 9.10 STAFF PROPOSED REVISIONS

- m. Native vegetation in the shoreline installed in accordance with the preceding standards shall be maintained by the property owner to promote healthy growth and prevent establishment of invasive species. Invasive plants (such as blackberry, ivy, knotweed, bindweed) shall be removed on a regular basis.
- n. Areas disturbed by removal of invasive plants shall be replanted with native vegetation where necessary to maintain the density shown in Table 4 and must be replanted in a timely manner, except where a long term removal and re-vegetation plan, as approved by the City, is being implemented.
- o. The following standards apply to utilities and loading docks located in the shoreline jurisdiction.
 - 1) Utilities such as pumps, pipes, etc. shall be suitably screened with native vegetation;
 - 2) Utility easements shall be landscaped with native, groundcover, grasses or other low-growing plants as appropriate to the shoreline environment and site conditions;
 - 3) Allowed loading docks and service areas located waterward of the development shall have landscaping that provides extensive visual separation from the river.

2. River Buffer Landscaping Requirements in all Shoreline Environments

The River Buffer in all shoreline environments shall function, in part, as a vegetation management area to filter sediment, capture contaminants in surface water run off, reduce the velocity of water run off, and provide fish and wildlife habitat.

- a. A planting plan prepared by a licensed landscape architect or an approved biologist shall be submitted to the City for approval that shows plant species, size, number and spacing. The requirement for a landscape architect or biologist may be waived by the Director for single family property owners (when planting is being required as mitigation for construction of overwater structures or shoreline stabilization), if the property owner accepts technical assistance from City staff.
- b. Plants shall be installed from the OHWM to the upland edge of the River Buffer (~~where not otherwise prohibited~~ unless site conditions would make planting unsafe).
- c. Plantings close to and on the bank shall include native willows, red osier dogwood and other native vegetation that will extend out over the water, to provide shade and habitat functions when mature. Species selected must be able to withstand seasonal water level fluctuations.
- d. Minimum plant spacing in the buffer shall follow Table 5. Existing non-invasive plants may be included in the density calculations.
- e. Irrigation for buffer plantings is required for at least two dry seasons or until plants are established. An irrigation plan is to be included as part of the planting plan.

SECTION 9.10 STAFF PROPOSED REVISIONS

- f. In the event that a development project allows for setback and benching of the shoreline along an existing levee or revetment, the newly created mid-slope bench area shall be planted and maintained with a variety of native vegetation appropriate for site conditions.

Table 5. River Buffer Vegetation Planting Densities

Plant Material Type	Planting Density
Stakes/cuttings along river bank (willows, red osier dogwood)	1-2 ft on center or per bioengineering method
Shrubs	3-5 ft on center, depending on species
Trees	15 – 20 ft on center, depending on species
Groundcovers, grasses, sedges, rushes, other herbaceous plants	1 – 1.5 ft on center, depending on species
Native seed mixes	5-25 lbs per acre, depending on species

3. Landscaping Requirements for the Urban Conservancy and High Intensity Environments - Outside of the River Buffer

For the portions of property within the Shoreline Jurisdiction landward of the River Buffer the landscape requirements in the General section of this SMP and the requirements for the underlying zoning as established in TMC Chapter 18.52 shall apply except as indicated below.

- a. **Parking Lot Landscape Perimeters:** One native tree for each 20 lineal feet of required perimeter landscaping, one shrub for each 4 lineal feet of required perimeter landscaping, and native groundcovers to cover 90% of the landscape area within 3 years, planted at a minimum spacing of 18 inches on-center.
- b. **Interior Parking Lot Landscaping:** Every 300 square feet of paved surface requires 10 square feet of interior landscaping within landscape islands separated by no more than 150 feet between islands.
- c. **Landscaping shall be provided at yards not adjacent to the river, with the same width as required in the underlying zoning district. This standard may be reduced as follows:**
 - 1) Where development provides public access corridor between off-site public area(s) and public shoreline areas, side yard landscaping may be reduced by 25 percent to no less than 3 feet; or
 - 2) Where development provides additional public access area(s) (as allowed by the High Intensity and Urban Conservancy Environment Development Standards) equal in area to at least 2.5% of total building area, front yard landscaping may be reduced by 25 percent.

D. Vegetation Management in the Shoreline Jurisdiction

The requirements of this section apply to all existing and new development within the shoreline jurisdiction.

SECTION 9.10 STAFF PROPOSED REVISIONS

1. Trees and shrubs may only be pruned for safety, to maintain view or access corridors and trails by pruning up or on the sides of trees, to maintain clearance for utility lines, and/or for improving shoreline ecological function. This type of pruning is exempt from any permit requirements. Topping of trees is prohibited except where absolutely necessary to avoid interference with existing utilities.
2. Plant debris from removal of invasive plants or pruning shall be removed from the site and disposed of properly.
3. Use of pesticides
 - a. Pesticides (including herbicides, insecticides, and fungicides) shall not be used in the shoreline jurisdiction except where:
 - 1) Alternatives such as manual removal, biological control, and cultural control are not feasible given the size of the infestation, site characteristics, or the characteristics of the invasive plant species ;
 - 2) The use of pesticides has been approved through a comprehensive vegetation or pest management and monitoring plan;
 - 3) The pesticide is applied in accordance with state regulations;
 - 4) The proposed herbicide is approved for aquatic use by the U.S. Environmental Protection Agency and
 - 5) The use of pesticides in the shoreline jurisdiction is approved in writing by the City and the applicant presents a copy of the Aquatic Pesticide Permit issued by the Department of Ecology or Washington Department of Agriculture.
 - b. Self-contained rodent bait boxes designed to prevent access by other animals are allowed.
 - c. Sports fields, parks, golf courses and other outdoor recreational uses that involve maintenance of extensive areas of turf shall provide and implement an integrated turf management program or integrated pest management plan designed to ensure that water quality in the river is not adversely impacted.

9.12 MARINAS, BOAT YARDS, DRY DOCKS, BOAT LAUNCHES, PIERS, DOCKS AND OTHER OVER-WATER STRUCTURES

A. General Requirements

1. Prior to issuance of a shoreline substantial development permit for construction of piers, docks, wharves or other over-water structures the applicant shall present approvals from State or Federal agencies, as applicable.
2. Structures must be designed by a qualified engineer and must demonstrate the project will result in no net loss of shoreline ecological function and will be stable against the forces of flowing water, wave action and the wakes of passing vessels.
3. In-water structures shall be designed and located to minimize shading of native aquatic vegetation and fish passage areas. Removal of shoreline, riparian and aquatic vegetation shall be limited to the minimum extent necessary to construct the project. All areas disturbed by construction shall be replanted with native vegetation as part of the project.
4. New or replacement in-water structures shall be designed and located such that natural hydraulic and geologic processes, such as erosion, wave action or floods will not necessitate the following:
 - a. reinforcement of the shoreline or stream bank with new bulkheads or similar artificial structures to protect the in-water structure; or
 - b. dredging.
5. No structures are allowed on top of over-water structures except for properties located north of the Turning Basin.
6. Pilings or other associated structures in direct contact with water shall not be treated with preservatives unless the applicant can demonstrate that no feasible alternative to protect the materials exists and that non-wood alternatives are not economically feasible. In that case, only compounds approved for marine use may be used and must be applied by the manufacturer per current best management practices of the Western Wood Preservers Institute. The applicant must present verification that the best management practices were followed. The preservatives must also be approved by the Washington Department of Fish and Wildlife (Department of Ecology 6/30/08).
7. All over-water structures shall be constructed and maintained in a safe and sound condition. Abandoned or unsafe over-water structures shall be removed or repaired promptly by the owner. Accumulated debris shall be regularly removed and disposed of properly so as not to jeopardize the

integrity of the structure. Replacement of in-water structures shall include proper removal of abandoned or other manmade structures and debris.

8. Boat owners who store motorized boats on-site are encouraged to use best management practices to avoid fuel and other fluid spills.

B. Marinas, Boat yards and Dry Docks

1. All uses under this category shall be designed to achieve no net loss of shoreline ecological functions.
2. Commercial/Industrial marinas and dry docks shall be located no further upriver than Turning Basin #3.
3. Marinas shall be located, designed, constructed and operated to avoid or minimize adverse impacts on fish, wildlife, water quality, native shoreline vegetation, navigation, public access, existing in-water recreational activities and adjacent water uses.
4. Marinas shall submit a fuel spill prevention and contingency plan to the City for approval. Haul-out and boat maintenance facilities must meet the City's stormwater management requirements and not allow the release of chemicals, petroleum or suspended solids to the river.
5. Marinas, boat yards and dry docks must be located a minimum of 100 feet from Fish and Wildlife Habitat Areas (see **Sensitive Areas in the Shoreline Map, Map 5**).
6. New marinas, launch ramps and accessory uses must be located where water depths are adequate to avoid the need for dredging.

C. Boat Launches and Boat Lifts

1. Boat launch ramps and vehicle access to the ramps shall be designed to not cause erosion; the use of pervious paving materials, such as grasscrete, are encouraged.
2. Boat launch ramps shall be designed to minimize areas of landfill or the need for shoreline protective structures.
3. Access to the boat ramp and parking for the ramp shall be located a sufficient distance from any frontage road to provide safe maneuvering of boats and trailers.
4. Launching rails shall be adequately anchored to the ground.

5. Launch ramps and boat lifts shall extend waterward past the OHWM only as far as necessary to achieve their purpose.
6. Boat lifts and canopies must meet the standards of the U.S. Army Corps of Engineers Regional General Permit Number 1 for Watercraft Lifts in Fresh and Marine/Estuarine Waters within the State of Washington.

D. Over-water Structures

Where allowed, over-water structures such as piers, wharves and docks shall meet the following standards:

1. The size of new over-water structures shall be limited to the minimum necessary to support the structure's intended use and to provide stability in the case of floating docks. Structures must be compatible with any existing channel control or flood management structures. ~~No dock or pier on residential properties, including finger pier, moorage or over water structure or device shall be wider than four feet.~~
2. Over-water structures shall not extend waterward of the OHWM any more than necessary to permit launching of watercraft, while also ensuring that watercraft do not rest on tidal substrate at any time.
3. Adverse impacts of over-water structures on water quality, river flows, fish habitat, shoreline vegetation, and public access shall be minimized and mitigated. Mitigation measures may include joint use of existing structures, open decking or piers, replacement of non-native vegetation, installation of in-water habitat features or restoration of shallow water habitat.
4. Any proposals for in-water or over-water structures shall provide a pre-construction habitat evaluation, including an evaluation of salmonid and bull trout habitat and shoreline ecological functions and demonstrate how the project achieves no net loss of shoreline ecological functions.
5. Over-water structures shall obtain all necessary state and federal permits prior to construction or repair.
6. All over-water structures must be designed by a qualified engineer to ensure that they are adequately anchored to the bank in a manner so as not to cause future downstream hazards or significant modifications to the river geomorphology and are able to withstand high flows.
7. Over-water structures shall not obstruct normal public use of the river for navigation or recreational purposes.

REVISED SECTION 9.12 STAFF PROPOSED CHANGES

8. Shading impacts to fish shall be minimized by using grating on at least 30% of the surface area of the over-water structure on residential areas and at least 50% of the over-water structure on all other properties. The use of skirting is not permitted.
9. If floats are used, the flotation shall be fully enclosed and contained in a shell (such as polystyrene) that prevents breakup or loss of the flotation material into the water, damage from ultraviolet radiation, and damage from rubbing against pilings or waterborne debris.
10. Floats may not rest on the tidal substrate at any time and stoppers on the piling anchoring the floats must be installed to ensure at least 1 foot of clearance above the substrate. Anchor lines may not rest on the substrate at any time.
11. The number of pilings to support over-water structures, including floats shall be limited to the minimum necessary. Pilings shall conform to the pilings standards contained in the US Army Corps of Engineers Regional General Permit No. 6.
12. No over-water structure shall be located closer than five (5) feet from the side property line extended, except that such structures may abut property lines for the common use of adjacent property owners when mutually agreed upon by the property owners in an easement recorded with the King County. A copy of this agreement shall be submitted to the Department of Community Development and accompany an application for a development permit and/or Shoreline Permit.

SECTION 10. ENVIRONMENTALLY SENSITIVE AREAS WITHIN THE SHORELINE JURISDICTION: SUMMARY SHEET

10.1 PURPOSE.....101
No changes proposed to PC Draft.

10.2 APPLICABILITY, MAPS AND INVENTORIES.....101
No changes proposed to PC Draft.

10.3 BEST AVAILABLE SCIENCE.....102
No changes proposed to PC Draft.

10.4 SENSITIVE AREAS STUDIES.....102
No changes proposed to PC Draft.

10.5 PROCEDURES.....105
No changes proposed to PC Draft.

10.6 WETLAND DETERMINATIONS AND CLASSIFICATIONS106

Technical Change: Modify Tukwila’s classification to a 4 category approach per the Department of Ecology guidance. See ~~strikeout~~ underline in this section.

**10.9 WETLAND WATERCOURSE, AND FISH AND WILDLIFE HABITAT
CONSERVATION AREA BUFFERS.....109**

Technical Change: Change wetland classification terminology to be consistent with the change in Section 10.6. No change in buffer widths. See ~~strikeout~~/underline in this section

10.11 SENSITIVE AREAS PERMITTED USES AND ALTERATIONS.....114

Subsection A General Sensitive Areas Permitted Uses.....114

Technical Change:
Allowed uses should apply to buffers, not the sensitive areas themselves. See ~~strikeout~~/underline in this section

Subsection D. Wetland Alterations.....115

Technical Change:
Incorporate Department of Ecology mitigation terminology and ratios. See ~~strikeout~~/underline in this section

STAFF PROPOSED REVISIONS TO SECTION 10: SUMMARY SHEET

**10.12 SENSITIVE AREAS MITIGATION, SUBSECTION D. MITIGATION PLAN
CONTENT AND STANDARDS.....119**

Technical Change:

Require mitigation plans to follow Department of Ecology/Corps of Engineers and EPA format. See ~~strikeout~~/underline in this section

Staff Recommended Solution

Staff recommends that the changes be made to be consistent with Department of Ecology guidelines and recommendations. There are few identified wetlands in the shoreline jurisdiction, so implementing a different classification and mitigation scheme will not be cumbersome. Also, at some point staff may propose adoption of the Ecology system for the next SAO update to be consistent with state guidance and other local jurisdictions. Applicants will face no additional requirements, as wetlands must be classified per Department of Ecology requirements and mitigation must satisfy the Ecology ratios anyway to meet state wetland permit requirements.

10. ENVIRONMENTALLY SENSITIVE AREAS WITHIN THE SHORELINE JURISDICTION.

10.1 Purpose

A. The Growth Management Act (RCW 36.70A) requires protection of critical areas (sensitive areas), defined as wetlands, watercourses, frequently flooded areas, geologically hazardous areas, critical aquifer recharge areas, fish and wildlife conservation areas, and abandoned mine areas.

B. The purpose of protecting environmentally sensitive areas within the shoreline jurisdiction is to:

1. Minimize developmental impacts on the natural functions and values of these areas.
2. Protect quantity and quality of water resources.
3. Minimize turbidity and pollution of wetlands and fish-bearing waters and maintain wildlife habitat.
4. Prevent erosion and the loss of slope and soil stability caused by the removal of trees, shrubs, and root systems of vegetative cover.
5. Protect the public against avoidable losses, public emergency rescue and relief operations cost, and subsidy cost of public mitigation from landslide, subsidence, erosion and flooding.
6. Protect the community's aesthetic resources and distinctive features of natural lands and wooded hillsides.
7. Balance the private rights of individual property owners with the preservation of environmentally sensitive areas.
8. Prevent the loss of wetland and watercourse function and acreage, and strive for a gain over present conditions.
9. Give special consideration to conservation or protection measures necessary to protect or enhance anadromous fisheries.
10. Incorporate the use of best available science in the regulation and protection of sensitive areas as required by the state Growth Management Act, according to WAC 365-195-900 through 365-195-925 and WAC 365-190-080.

C. The goal of these sensitive area regulations is to achieve no net loss of wetland, watercourse, or fish and wildlife conservation area or their functions.

10.2 Applicability, Maps and Inventories

A. Sensitive areas located in the shoreline jurisdiction will be governed by the Shoreline Management Program and not the City's Sensitive Areas Ordinance. However, the level of protection for the critical areas shall be equal to that provided in the Sensitive Areas section of the Zoning Code (TMC18.45).

STAFF PROPOSED REVISIONS SECTION 10

B. Sensitive areas currently identified in the shoreline jurisdiction are discussed in the Shoreline Inventory and Characterization Report, which forms part of this Shoreline Management Program. The locations are mapped on the **Sensitive Areas in the Shoreline Jurisdiction Map – Map 5**. This map is based on assessment of current conditions and review of the best available information. However, additional sensitive areas may exist within the shoreline jurisdiction and the boundaries of the sensitive areas shown are not exact. It is the responsibility of the property owner to determine the presence of sensitive areas on the property and to verify the boundaries in the field. Sensitive area provisions for abandoned mine areas do not apply as none of these areas is located in the shoreline jurisdiction.

C. Frequently flooded areas and areas of seismic instability will be governed by the Flood Zone Management Code (TMC 16.52) and the Washington State Building Code.

10.3 Best Available Science

Policies, regulations and decisions concerning sensitive areas shall rely on Best Available Science to protect their functions and values. Special consideration must be given to the conservation or protection measures necessary to preserve or enhance anadromous fish and their habitats. Nonscientific information may supplement scientific information, but is not an adequate substitution for valid and available scientific information.

10.4 Sensitive Area Studies

An applicant for a development proposal that may include a sensitive area and/or its buffer shall submit those studies as required by the City and specified below to adequately identify and evaluate the sensitive area and its buffers.

A. General Requirements

1. A required sensitive areas study shall be prepared by a person with experience and training in the scientific discipline appropriate for the relevant sensitive area. A qualified professional must have obtained a B.S. or B.A. or equivalent degree in ecology or related science, engineering, environmental studies, fisheries, geotechnical or related field, and at least two years of related work experience.
2. The sensitive areas study shall use scientifically valid methods and studies in the analysis of sensitive area data and shall use field reconnaissance and reference the source of science used. The sensitive area study shall evaluate the proposal and all probable impacts to sensitive areas.
3. It is intended that sensitive areas studies and information be utilized by applicants in preparation of their proposals and therefore shall be undertaken

STAFF PROPOSED REVISIONS SECTION 10

early in the design stages of a project.

B. Wetland, Watercourse and Fish and Wildlife Conservation Area - Sensitive Area Studies

At a minimum, the sensitive area study shall contain the following information, as applicable:

1. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested;
2. A copy of the site plan for the development proposal showing: sensitive areas and buffers and the development proposal with dimensions; clearing limits; proposed storm water management plan; and mitigation plan for impacts due to drainage alterations;
3. The dates, names and qualifications of the persons preparing the study and documentation of any fieldwork performed on the site;
4. Identification and characterization of all sensitive areas, water bodies, and buffers adjacent to the proposed project area or potentially impacted by the proposed project;
5. A statement specifying the accuracy of the study and assumptions used in the study;
6. Determination of the degree of impact and risk from the proposal both on the site and on adjacent properties;
7. An assessment of the probable cumulative impacts to sensitive areas, their buffers and other properties resulting from the proposal;
8. A description of reasonable efforts made to apply mitigation sequencing to avoid, minimize and mitigate impacts to sensitive areas;
9. Plans for adequate mitigation to offset any impacts;
10. Recommendations for maintenance, short-term and long-term monitoring, contingency plans and bonding measures; and
11. Any technical information required by the director to assist in determining compliance.

C. Geotechnical Studies

1. A geotechnical study appropriate both to the site conditions and the proposed development shall be required for development in Class 2, Class 3, and Class 4 Areas.
2. All studies shall include at a minimum a site evaluation, review of available information regarding the site and a surface reconnaissance of the site and adjacent areas. For Class 2 areas, subsurface exploration of site conditions is at the discretion of the geotechnical consultant. In addition, for Class 3 and Class 4 Areas, the study shall include a feasibility analysis for the use of infiltration on-site and a subsurface exploration of soils and hydrology conditions. Detailed slope stability analysis shall be done if the geotechnical engineer recommends it in Class 3 areas, and must be done in Class 4 areas.

STAFF PROPOSED REVISIONS SECTION 10

3. Applicants shall retain a geotechnical engineer to prepare the reports and evaluations required in this subsection. The geotechnical report and completed site evaluation checklist shall be prepared in accordance with generally accepted geotechnical practices, under the supervision of and signed and stamped by the geotechnical engineer. The report shall be prepared in consultation with the appropriate City department. Where appropriate, a geologist must be included as part of the geotechnical consulting team. The report shall make specific recommendations concerning development of the site.
4. The opinions and recommendations contained in the report shall be supported by field observations and, where appropriate or applicable, by literature review conducted by the geotechnical engineer which shall include appropriate explorations, such as borings or test pits, and an analysis of soil characteristics conducted by or under the supervision of the engineer in accordance with standards of the American Society of Testing and Materials or other applicable standards. If the evaluation involves geologic evaluations or interpretations, the report shall be reviewed and approved by a geotechnical engineer.

D. Modifications or Waivers to Sensitive Area Study Requirements

1. The Director may limit the required geographic area of the sensitive area study as appropriate if:
 - a. The applicant, with assistance from the city, cannot obtain permission to access properties adjacent to the project area; or
 - b. The proposed activity will affect only a limited part of the site.
2. The Director may allow modifications to the required contents of the study where, in the judgment of a qualified professional, more or less information is required to adequately address the potential sensitive area impacts and required mitigation.
3. If there is written agreement between the Director and the applicant concerning the sensitive area classification and type, the Director may waive the requirement for sensitive area studies provided that no adverse impacts to sensitive areas or buffers will result. There must be substantial evidence that the sensitive areas delineation and classification are correct, that there will be no detrimental impact to the sensitive areas or buffers, and that the goals, purposes, objectives and requirements of the Shoreline Management Program will be followed.

STAFF PROPOSED REVISIONS SECTION 10

10.5 Procedures

When an applicant submits an application for any building permit, subdivision, short subdivision or any other land use review that approves a use, development or future construction, the location and dimensions of all sensitive areas and buffers on the site shall be indicated on the plans submitted. When a sensitive area is identified, the following procedures apply.

A. The applicant shall submit the relevant sensitive area study as required by this chapter.

B. The Department of Community Development will review the information submitted in the sensitive area studies to verify the information, confirm the nature and type of the sensitive area, and ensure the study is consistent with the Shoreline Master Program. At the discretion of the Director, sensitive area studies may undergo peer review, at the expense of the applicant.

C. Denial of use or development: A use or development will be denied if the Director determines that the applicant cannot ensure that potential dangers and costs to future inhabitants of the development, adjacent properties, and Tukwila are minimized and mitigated to an acceptable level.

D. Preconstruction meeting: The applicant, specialist(s) of record, contractor, and department representatives will be required to attend pre-construction meetings prior to any work on the site.

E. Construction monitoring: The specialist(s) of record shall be retained to monitor the site during construction.

F. On-site Identification: The Director may require the boundary between a sensitive area and its buffer or between the buffer and the development and any development or use to be permanently identified with fencing, or with a wood or metal sign with treated wood, concrete or metal posts. Size will be determined at the time of permitting, and wording shall be as follows: *“Protection of this natural area is in your care. Do not alter or disturb. Please call the City of Tukwila (206-431-3670) for more information.”*

10.6 Wetland Determinations and Classifications

A. Wetlands and their boundaries are established by using the Washington State Wetland and Delineation Manual, as required by RCW 36.70A.175 (Ecology Publication #96-94) and consistent with the 1987 Corps of Engineers Wetland Delineation Manual.

B. Wetland determinations shall be made by a qualified professional (certified Wetland Scientist or non-certified with at least 2 years of full-time work experience as a wetland

STAFF PROPOSED REVISIONS SECTION 10

professional).

C. Wetland areas within the City of Tukwila have certain characteristics, functions and values and have been influenced by urbanization and related disturbances. Wetland functions include, but are not limited to the following: improving water quality; maintaining hydrologic functions (reducing peak flows, decreasing erosion, groundwater); and providing habitat for plants, mammals, fish, birds, and amphibians. Wetland functions shall be evaluated using Washington State Functional Assessment Method, ~~or equivalent~~

D. Wetlands shall be designated in accordance with the Washington State Wetlands Rating System (Washington Department of Ecology, August 2004, Publication #93-74) as Category Type I, Type 2II, or Type 3III, or IV as listed below:

1. Category I Type 1 wetlands are those that a) represent a unique or rare wetland type; or b) are more sensitive to disturbance than most wetlands; or c) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or d) provide a high level of functions. The following types of wetlands listed by Washington Department of Ecology and potentially found in Tukwila's Shoreline Jurisdiction are Category I:

a. Estuarine wetlands (Estuarine wetlands are deepwater tidal habitats with a range of fresh-brackish-marine water chemistry and daily tidal cycles, salt and brackish marshes, intertidal mudflats, mangrove swamps, bays, sounds, and coastal rivers.

b. Wetlands that perform many functions well and score at least 70 points in the Western Washington Wetlands Rating System.

~~_____ are those wetlands that meet any of the following criteria:~~

~~a. The wetland is characterized by the presence of species listed by the federal government or State as endangered or threatened, or the presence of critical or outstanding habitat for those species;~~

~~b. The wetland has 40-60% permanent open water in dispersed patches with two or more classes of vegetation;~~

~~c. The wetland is equal to or greater than five acres in size and has three or more wetland classes, one of which may be substituted by permanent or open water; or~~

~~d. The wetland is documented as regionally significant waterfowl or shorebird areas by the State Department of Fish and Wildlife.~~

2. Category II Type 2 wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection. Category II wetlands potentially in Tukwila's Shoreline Jurisdiction include:

a. Estuarine Wetlands - Any estuarine wetland smaller than an acre, or those that are disturbed and larger than 1 acre are category II wetlands.

STAFF PROPOSED REVISIONS SECTION 10

b. Wetlands That Perform Functions Well - Wetlands scoring between 51-69 points (out of 100) on the questions related to the functions present are Category II wetlands. ~~wetlands are those wetlands that meet any of the following criteria:~~

- ~~a. The wetland is equal to or greater than one acre in size;~~
- ~~b. The wetland has three or more wetland classes and is less than 5 acres;~~
- ~~c. The wetland is characterized by the presence of nesting sites for priority species as listed by the Washington State Department of Fish and Wildlife; or~~
- ~~d. The wetland is hydrologically connected (non-isolated) to a Type 1 or Type 2 watercourse.~~

3. Category III wetlands have a moderate level of functions (scores between 30 - 50 points). Wetlands scoring between 30 -50 points generally have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.

~~Type 3 wetlands are those wetlands that are greater than 1,000 square feet and less than one acre in size with two or fewer wetland classes.~~

4. Category IV wetlands have the lowest levels of functions (scores less than 30 points) and are often heavily disturbed. While these are wetlands that should be able to be replaced or improved, they still need protection because they may provide some important functions. Any disturbance of these wetlands must be considered on a case by case basis.

10.7 Watercourse Designation and Ratings

A. Watercourse ratings are based on the existing habitat functions and are rated as follows:

1. Type 1 Watercourse: Watercourses inventoried as Shorelines of the State, under RCW 90.58 (Green/Duwamish River).
2. Type 2 Watercourse: Those watercourses that have either perennial (year-round) or intermittent flows and support salmonid fish use.
3. Type 3 Watercourse: Those watercourses that have perennial flows and are not used by salmonid fish.
4. Type 4 Watercourse: Those watercourses that have intermittent flows and are not used by salmonid fish.

B. Watercourse sensitive area studies shall be performed by a qualified professional (hydrologist, geologist, engineer or other scientist with experience in preparing watercourse assessments).

10.8 Fish and Wildlife Habitat Conservation Areas

A. Fish and wildlife habitat conservation areas within the shoreline jurisdiction include the habitats listed below:

STAFF PROPOSED REVISIONS SECTION 10

1. Areas with which endangered, threatened, and sensitive species have a primary association;
2. Habitats and species of local importance, including but not limited to bald eagle habitat, heron rookeries, osprey nesting areas;
3. Waters of the State (i.e., the Green-Duwamish River itself);
4. State natural area preserves and natural resource conservation areas; and
5. Areas critical for habitat connectivity.

B. The approximate location and extent of known fish and wildlife habitat conservation areas are identified in the Shoreline Inventory and Characterization Report and are shown on the Sensitive Areas in the Shoreline Jurisdiction map¹. Fish and wildlife habitat conservation areas correlate closely with the areas identified as regulated watercourses and wetlands and their buffers, as well as off-channel habitat areas created to improve salmon habitat (shown on the Sensitive Areas Map) in the Shoreline jurisdiction. The Green/Duwamish River is recognized as the most significant fish and wildlife habitat corridor. In addition Gilliam Creek, Riverton Creek, Southgate Creek, Hamm Creek (in the north PAA), and Johnson Creek (South PAA) all provide salmonid habitat.

10.9 Wetland Watercourse, and Fish and Wildlife Habitat Conservation Area Buffers

A. Purpose and Intent of Buffer Establishment

1. A buffer area shall be established adjacent to designated sensitive areas. The purpose of the buffer area shall be to protect the integrity, functions and values of the sensitive areas. Any land alteration must be located out of the buffer areas as required by this section.
2. Buffers are intended in general to:
 - a. Minimize long-term impacts of development on properties containing sensitive areas;
 - b. Protect sensitive areas from adverse impacts during development;
 - c. Preserve the edges of wetlands and the banks of watercourses and fish and wildlife habitat conservation areas for their critical habitat value;
 - d. Provide an area to stabilize banks, to absorb overflow during high water events and to allow for slight variation of aquatic system boundaries over time due to hydrologic or climatic effects;
 - e. Provide shading to watercourses and fish and wildlife habitat conservation areas to maintain stable water temperatures and provide vegetative cover for additional wildlife habitat;

¹ Note that only the salmon habitat enhancement project sites completed or underway are shown as Fish and Wildlife Conservation Areas on the Sensitive Areas in the Shoreline Jurisdiction Map. Streams are shown as watercourses. The river is not shown as a Fish and Wildlife Habitat Conservation Area for the sake of simplicity.

STAFF PROPOSED REVISIONS SECTION 10

- f. Provide input of organic debris and nutrient transport in watercourses;
- g. Reduce erosion and increased surface water runoff;
- h. Reduce loss of or damage to property;
- i. Intercept fine sediments from surface water runoff and serve to minimize water quality impacts; and
- j. Protect the sensitive area from human and domestic animal disturbances.

C. Establishment of Buffer Widths

The following standard buffers shall be established:

1. Wetland buffers (measured from the wetland edge):
 - a. Categories I and II ~~Type 1~~ Wetlands; 100 foot buffer.
 - b. Category III ~~Type 2~~ Wetland; 80-foot buffer.
 - c. Category IV ~~Type 3~~ Wetland; 50-foot buffer.
2. Watercourse buffers (measured from the Ordinary High Water Mark):
 - a. Type 1 Watercourse: The buffer width for the Green/Duwamish River is established in the Shoreline Environment Designations of this SMP for the three designated shoreline environments.
 - b. Type 2 Watercourse: 100-foot-wide buffer.
 - c. Type 3 Watercourse: 80-foot-wide buffer.
 - d. Type 4 Watercourse: 50-foot-wide buffer.
3. Fish and Wildlife Habitat Conservation Areas: the buffer will be the same as the river buffer established for each Shoreline Environment measured from the OHWM, unless an alternate buffer is established and approved at the time a Fish and Wildlife Habitat restoration project is undertaken.

D. Sensitive Area Buffer Setbacks

All commercial and industrial buildings shall be set back 15 feet and all other development shall be set back ten feet from the sensitive area buffer's edge. The building setbacks shall be measured from the foundation to the buffer's edge. Building plans shall also identify a 20-foot area beyond the buffer setback within which the impacts of development will be reviewed. The Director may waive setback requirements when a site plan demonstrates there will be no adverse impacts to the buffer from construction or occasional maintenance activities.

E. Reduction of Standard Buffer Width

Except for the Green/Duwamish River (Type 1 watercourse for which any variation in the buffer shall be regulated under the shoreline provisions of this Program), the buffer width may be reduced on a case-by-case basis, provided the reduced buffer area does not contain slopes 15% or greater. In no case shall the approved buffer width result in greater than a 50% reduction in width. Buffer reduction with enhancement may be allowed as part of a Substantial Development permit if:

STAFF PROPOSED REVISIONS SECTION 10

1. Additional protection to wetlands or watercourses will be provided through the implementation of a buffer enhancement plan;
2. The existing condition of the buffer is degraded;
3. Buffer enhancement includes, but is not limited to the following:
 - a. Planting vegetation that would increase value for fish and wildlife habitat or improve water quality;
 - b. Enhancement of wildlife habitat by incorporating structures that are likely to be used by wildlife, including wood duck boxes, bat boxes, snags, root wads/stumps, birdhouses and heron nesting areas; or
 - c. Removing non-native plant species and noxious weeds from the buffer area and replanting the area.

F. Increase in Standard Buffer Width

Buffers for sensitive areas will be increased when they are determined to be particularly sensitive to disturbance or the proposed development will create unusually adverse impacts. Any increase in the width of the buffer shall be required only after completion of a sensitive areas study by a qualified biologist that documents the basis for such increased width. An increase in buffer width may be appropriate when:

1. The development proposal has the demonstrated potential for significant adverse impacts upon the sensitive area that can be mitigated by an increased buffer width; or
2. The area serves as habitat for endangered, threatened, sensitive or monitor species listed by the federal government or the State.

G. Maintenance of Vegetation in Buffers

Every reasonable effort shall be made to maintain any existing viable native plant life in the buffers. Vegetation may be removed from the buffer as part of an enhancement plan approved by the Director. Enhancements will ensure that slope stability and wetland or watercourse quality will be maintained or improved. Any disturbance of the buffers shall be replanted with a diverse plant community of native northwest species that are appropriate for the specific site as determined by the Director. If the vegetation must be removed, or because of the alterations of the landscape the vegetation becomes damaged or dies, then the applicant for a permit must replace existing vegetation with comparable specimens, approved by the Director, which will restore buffer functions within five years.

10.10 Areas of Potential Geologic Instability

A. Classification

Areas of potential geologic instability are classified as follows:

1. Class 1 area, where landslide potential is low, and which slope is less than

STAFF PROPOSED REVISIONS SECTION 10

- 15%;
2. Class 2 areas, where landslide potential is moderate, which slope is between 15% and 40%, and which are underlain by relatively permeable soils;
 3. Class 3 areas, where landslide potential is high, which include areas sloping between 15% and 40%, and which are underlain by relatively impermeable soils or by bedrock, and which also include all areas sloping more steeply than 40%;
 4. Class 4 areas, where landslide potential is very high, which include sloping areas with mappable zones of groundwater seepage, and which also include existing mappable landslide deposits regardless of slope.

B. Exemptions

The following areas are exempt from regulation as geologically hazardous areas:

1. Temporary stockpiles of topsoil, gravel, beauty bark or other similar landscaping or construction materials;
2. Slopes related to materials used as an engineered pre-load for a building pad;
3. Any temporary slope that has been created through legal grading activities under an approved permit may be re-graded.
4. Roadway embankments within right-of-way or road easements; and
5. Slopes retained by approved engineered structures, except riverbank structures and armoring.

C. Geotechnical Study Required

1. Development or alterations to areas of potential geologic instability that form the river banks shall be governed by the policies and requirements of the Shoreline Stabilization section of this SMP. Development proposals on all other lands containing or threatened by an area of potential geologic instability Class 2 or higher shall be subject to a geotechnical study. The geotechnical report shall analyze and make recommendations on the need for and width of any setbacks or buffers necessary to insure slope stability. Development proposals shall then include the buffer distances as defined within the geotechnical report. The geotechnical study shall be performed by a qualified professional geotechnical engineer, licensed in the State of Washington.
2. Prior to permitting alteration of an area of potential geologic instability, the applicant must demonstrate one of the following:
 - a. There is no evidence of past instability or earth movement in the vicinity of the proposed development, and where appropriate, quantitative analysis of slope stability indicates no significant risk to the proposed development or surrounding properties; or
 - b. The area of potential geologic instability can be modified or the project can be designed so that any potential impact to the project and surrounding properties is eliminated, slope stability is not decreased,

STAFF PROPOSED REVISIONS SECTION 10

and the increase in surface water discharge or sedimentation shall not decrease slope stability.

D. Buffers for Areas of Potential Geologic Instability

1. Buffers are intended to:
 - a. Minimize long-term impacts of development on properties containing sensitive areas;
 - b. Protect sensitive areas from adverse impacts during development;
 - c. Prevent loading of potentially unstable slope formations;
 - d. Protect slope stability;
 - e. Provide erosion control and attenuation of precipitation, surface water and storm water runoff;
 - f. Reduce loss of or damage to property; and
 - g. Prevent the need for future shoreline armoring.
2. Buffers may be increased by the Director when an area is determined to be particularly sensitive to the disturbance created by a development. Such a decision will be based on a City review of the report as prepared by a qualified geotechnical engineer and by a site visit.

E. Additional Requirements

1. Where any portion of an area of potential geologic instability is cleared for development, a landscaping plan for the site shall include tree replanting in accordance with the Vegetation Protection and Landscaping chapter of this SMP. Vegetation shall be sufficient to provide erosion and stabilization protection.
2. It shall be the responsibility of the applicant to submit, consistent with the findings of the geotechnical report, structural plans which were prepared and stamped by a structural engineer. The plans and specifications shall be accompanied by a letter from the geotechnical engineer who prepared the geotechnical report stating that in his/her judgment, the plans and specifications conform to the recommendations in the geotechnical report; the risk of damage to the proposed development site from soil instability will be minimal subject to the conditions set forth in the report; and the proposed development will not increase the potential for soil movement.
3. Further recommendations signed and sealed by the geotechnical engineer shall be provided should there be additions or exceptions to the original recommendations based on the plans, site conditions or other supporting data. If the geotechnical engineer who reviews the plans and specifications is not the same engineer who prepared the geotechnical report, the new engineer shall, in a letter to the City accompanying the plans and specifications, express his or her agreement or disagreement with the recommendations in the

STAFF PROPOSED REVISIONS SECTION 10

geotechnical report and state that the plans and specifications conform to his or her recommendations.

4. The architect or structural engineer shall submit to the City, with the plans and specifications, a letter or notation on the design drawings at the time of permit application stating that he or she has reviewed the geotechnical report, understands its recommendations, has explained or has had explained to the owner the risks of loss due to slides on the site, and has incorporated into the design the recommendations of the report and established measures to reduce the potential risk of injury or damage that might be caused by any earth movement predicted in the report.
5. The owner shall execute a Sensitive Areas Covenant and Hold Harmless Agreement running with the land, on a form provided by the City. The City will file the completed covenant with the King County Department of Records and Elections at the expense of the applicant or owner. A copy of the recorded covenant will be forwarded to the owner.
6. Whenever the City determines that the public interest would not be served by the issuance of a permit in an area of potential geologic instability without assurance of a means of providing for restoration of areas disturbed by, and repair of property damage caused by, slides arising out of or occurring during construction, the Director may require assurance devices.
7. Where recommended by the geotechnical report, the applicant shall retain a geotechnical engineer (preferably retain the geotechnical engineer who prepared the final geotechnical recommendations and reviewed the plans and specifications) to monitor the site during construction.. If a different geotechnical engineer is retained, the new geotechnical engineer shall submit a letter to the City stating whether or not he/she agrees with the opinions and recommendations of the original study. Further recommendations, signed and sealed by the geotechnical engineer, and supporting data shall be provided should there be exceptions to the original recommendations.
8. During construction the geotechnical engineer shall monitor compliance with the recommendations in the geotechnical report, particularly site excavation, shoring, soil support for foundations including piles, subdrainage installations, soil compaction and any other geotechnical aspects of the construction. Unless otherwise approved by the City, the specific recommendations contained in the soils report must be implemented. The geotechnical engineer shall provide to the City written, dated monitoring reports on the progress of the construction at such timely intervals as shall be specified. Omissions or deviations from the approved plans and specifications shall be immediately reported to the City. The final construction monitoring report shall contain a statement from the geotechnical engineer that, based upon his or her professional opinion, site observations and testing during the monitoring of

STAFF PROPOSED REVISIONS SECTION 10

the construction, the completed development substantially complies with the recommendations in the geotechnical report and with all geotechnical-related permit requirements. Occupancy of the project will not be approved until the report has been reviewed and accepted by the Director.

1. Substantial weight shall be given to ensuring continued slope stability and the resulting public health, safety and welfare in determining whether a development should be allowed.
2. The City may impose conditions that address site-work problems which could include, but are not limited to, limiting all excavation and drainage installation to the dry season, or sequencing activities such as installing erosion control and drainage systems well in advance of construction. A permit will be denied if it is determined by the Director that the development will increase the potential of soil movement that results in an unacceptable risk of damage to the proposed development, its site or adjacent properties.

10.11 Sensitive Areas Permitted Uses and Alterations.

A. General Sensitive Areas Permitted Uses

1. All uses permitted in the Shoreline Jurisdiction Buffers are allowed in sensitive area buffers within the jurisdiction except:
 - a. Promenades
 - b. Recreational structures
 - c. Public pedestrian bridges
 - d. Vehicle bridges
 - e. New utilities
 - f. Plaza connectors
 - g. Water dependent uses and their structures
 - h. Essential streets, roads and rights of way
 - i. Essential public facilities
 - j. Outdoor storage
2. In addition, the following uses are allowed:
 - a. Maintenance activities of existing landscaping and gardens in a sensitive area buffer including but not limited to mowing lawns, weeding, harvesting and replanting of garden crops and pruning and planting of vegetation. The removal of established native trees and shrubs is not permitted. Herbicide use in sensitive areas or their buffers is not allowed without written permission of the City.
 - b. Vegetation maintenance as part of sensitive area enhancement, creation or restoration. Herbicide use in sensitive areas or their buffers is not allowed without written permission of the City.

STAFF PROPOSED REVISIONS SECTION 10

B. Uses Requiring a Type II permit

1. Maintenance and repair of existing uses and facilities where alteration or additional fill materials will be placed or heavy construction equipment used.
2. Construction of new essential streets and roads, rights-of-way and utilities.
3. New surface water discharges to sensitive areas or their buffers from detention facilities, pre-settlement ponds or other surface water management structures may be allowed provided that the discharge meets the clean water standards of RCW 90.48 and WAC 173.200 and 173.201 as amended, and does not adversely affect water level fluctuations in the wetland or adversely affect watercourse habitat and watercourse flow conditions relative to the existing rate.
4. Plaza connectors
5. Essential public facilities
6. Overwater structures
7. Recreation structures

C. Conditional Uses

Dredging, where necessary to remediate contaminated sediments, if adverse impacts are mitigated.

D. Wetland Alterations.

Alterations to wetlands are discouraged, are limited to the minimum necessary for project feasibility, and must have an approved mitigation plan developed in accordance with the standards in this chapter.

1. Mitigation for wetlands shall follow the mitigation sequencing steps in this chapter and may include the following types of actions:
 - a. Creation - the manipulation of the physical, chemical or biological characteristics to develop a wetland on an upland or deepwater site, where a biological wetland did not previously exist;
 - b. Re-establishment - the manipulation of the physical, chemical or biological characteristics of a site with the goal of restoring wetland functions to a former wetland, resulting in a net increase in wetland acres and functions;
 - c. Rehabilitation - the manipulation of the physical, chemical, or biological characteristics with the goal of repairing historic functions and processes of a degraded wetland, resulting in a gain in wetland function but not acreage;
 - d. Enhancement - the manipulation of the physical, chemical or biological characteristics to heighten, intensify, or improve specific functions (such as vegetation) or to change the growth stage or composition of the vegetation present, resulting in a change in wetland functions but not in a gain in wetland acreage; or

STAFF PROPOSED REVISIONS SECTION 10

~~e. A combination of the three types. Mitigation for any alteration to a Type 2 or 3 wetland must be provided at a ratio of 1.5:1 for creation or restoration and 3:1 for enhancement~~

2. Allowed alterations per wetland type and mitigation ratios are as follows:

~~1a. Alterations are not permitted to Category I or II Type 1 wetlands unless specifically exempted under the provisions of this Program. Mitigation will still be required at a rate of 3:1 for creation or re-establishment, 4:1 for rehabilitation, and 6:1 for enhancement.~~

~~2b. Alterations to Category III Type 2 wetlands are prohibited except where the location or configuration of the wetland provides practical difficulties that can be resolved by modifying up to .10 (one-tenth) of an acre of wetland. Mitigation for any alteration to a Category III Type 2 wetland must be located contiguous to the altered wetland. Mitigation for any alteration to a Category III wetland must be provided at a ratio of 2:1 for creation or re-establishment, 4:1 for rehabilitation and 8:1 for enhancement alone.~~

~~c.3. Alterations to Category IV Type 3 wetlands are allowed, where unavoidable and adequate mitigation is carried out in accordance with the standards of this section. Mitigation for alteration to a Category IV wetland will be 1.5:1 for creation or re-establishment and 3:1 for rehabilitation or enhancement.~~

~~4d. Isolated wetlands formed on fill material in highly disturbed environmental conditions and assessed as having low overall wetland functions (scoring below 20 points) may be altered and/or relocated with the permission of the Director. These wetlands may include artificial hydrology or wetlands unintentionally created as the result of construction activities. The determination that a wetland is isolated is made by the US Army Corps of Engineers.~~

D. Watercourse Alterations

All impacts to a watercourse that degrade the functions and values of the watercourse shall be avoided. If alteration to the watercourse is unavoidable, all adverse impacts shall be mitigated in accordance with the approved mitigation plan as described in this chapter. Mitigation shall take place on-site or as close as possible to the impact location, and compensation shall be at a minimum 1:1 ratio. Any mitigation shall result in improved watercourse functions over existing conditions.

1. Diverting or rerouting may only occur with the permission of the Director and an approved mitigation plan. Any watercourse that has critical wildlife habitat or is necessary for the life cycle or spawning of salmonids, shall not be rerouted, unless it can be shown that the habitat will be improved for the benefit of the species. A watercourse may be rerouted or day-lighted as a mitigation measure to improve watercourse function.
2. Piping of any watercourse should be avoided. Relocation of a watercourse is

STAFF PROPOSED REVISIONS SECTION 10

preferred to piping; if piping occurs in a watercourse sensitive area, it shall be limited and shall require approval of the Director. Piping of Type 1 watercourses shall not be permitted. Piping may be allowed in Type 2, 3 or 4 watercourses if it is necessary for access purposes. Piping may be allowed in Type 4 watercourses if the watercourse has a degraded buffer, is located in a highly developed area and does not provide shade, temperature control etc. for habitat. The applicant must comply with the conditions of this section, including: providing excess capacity to meet needs of the system during a 100-year flood event; and providing flow restrictors, and complying with water quality and existing habitat enhancement procedures.

3. No process that requires maintenance on a regular basis will be acceptable unless this maintenance process is part of the regular and normal facilities maintenance process or unless the applicant can show funding for this maintenance is ensured for as long as the use remains.
4. Piping projects shall be performed pursuant to the following applicable standards:
 - a. The conveyance system shall be designed to comply with the standards in current use and recommended by the Department of Public Works.
 - b. Where allowed, piping shall be limited to the shortest length possible as determined by the Director to allow access onto a property.
 - c. Where water is piped for an access point, those driveways or entrances shall be consolidated to serve multiple properties where possible, and to minimize the length of piping.
 - d. When required by the Director, watercourses under drivable surfaces shall be contained in an arch culvert using oversize or super span culverts for rebuilding of a streambed. These shall be provided with check dams to reduce flows, and shall be replanted and enhanced according to a plan approved by the Director.
 - e. All watercourse crossing shall be designed to accommodate fish passage. Watercourse crossings shall not block fish passage where the streams are fish bearing.
 - f. Storm water runoff shall be detained and infiltrated to preserve the watercourse channel's dominant discharge.
 - g. All construction shall be designed to have the least adverse impact on the watercourse, buffer and surrounding environment.
 - h. Piping shall be constructed during periods of low flow, or as allowed by the State Department of Fish and Wildlife.
 - i. Water quality must be as good or better for any water exiting the pipe as for the water entering the pipe, and flow must be comparable.

E. Fish and Wildlife Conservation Area Alterations

Alterations to the Green/Duwamish River are regulated by the shoreline provisions of this SMP. Alterations to Fish and Wildlife Conservation Areas that have been created as restoration or habitat enhancement sites and that are shown on the Sensitive Areas in the Shoreline Jurisdiction Map are prohibited and may only be authorized through a shoreline

STAFF PROPOSED REVISIONS SECTION 10

variance procedure.

10.12 Sensitive Areas Mitigation

Mitigation shall be required for any proposals for dredging, filling, piping, diverting, relocation or other alterations of sensitive areas in as allowed in this chapter and in accordance with mitigation sequencing and the established mitigation ratios. The mitigation plan shall be developed as part of a sensitive area study by a qualified specialist.

A. Mitigation Sequencing.

Applicants shall demonstrate that reasonable efforts have been examined with the intent to avoid and minimize impacts to sensitive areas and buffers. When an alteration to a sensitive area or its required buffer is proposed, such alteration shall be avoided, minimized or compensated for in the following order of preference:

1. Avoidance of sensitive area and buffer impacts, whether by finding another site or changing the location of the proposed activity on-site;
2. Minimizing sensitive area and buffer impacts by limiting the degree of impact on site;
3. Mitigation actions that require compensation by replacing, enhancing, or substitution.

B. Criteria for Approval of Alterations and Mitigation

Alterations and mitigation plans are subject to Director approval, and may be approved only if the following findings are made:

1. The alteration will not adversely affect water quality;
2. The alteration will not adversely affect fish, wildlife, or their habitat;
3. The alteration will not have an adverse effect on drainage and/or stormwater detention capabilities;
4. The alteration will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;
5. The alteration will not be materially detrimental to any other property; and
6. The alteration will not have adverse effects on any other sensitive areas or the shoreline.
7. The mitigation will result in improved functions such as water quality, erosion control, wildlife and fish habitat.

C. Mitigation Location

1. On-site mitigation shall be provided, except where it can be demonstrated that:
 - a. On-site mitigation is not scientifically feasible due to problems with hydrology, soils, , or other factors; or
 - b. Mitigation is not practical due to potentially adverse impacts from

STAFF PROPOSED REVISIONS SECTION 10

- surrounding land uses; or
 - c. Existing functional values created at the site of the proposed restoration are significantly greater than lost sensitive area functions; or
 - d. Established regional goals for flood storage, flood conveyance, habitat or other sensitive area functions have been established and strongly justify location of mitigation at another site.
2. Off-site mitigation shall occur within the shoreline jurisdiction in a location where the sensitive area functions can be restored. Buffer impacts must be mitigated at or as close as possible to the location of the impact.
 3. Wetland creation, relocation of a watercourse, or creation of a new fish and wildlife habitat shall not result in the new sensitive area or buffer extending beyond the development site and onto adjacent property without the agreement of the affected property owners, unless otherwise exempted by this Shoreline Master Program.

D. Mitigation Plan Content and Standards

The scope and content of a mitigation plan shall be decided on a case-by-case basis. As the impacts to the sensitive area increase, the mitigation measures to offset these impacts will increase in number and complexity. The minimum components of a complete mitigation plan are listed below. as follows: For wetland mitigation plans, the format should follow that established in "Wetland Mitigation in Washington State, Part 2 - Developing Mitigation Plans (Washington Department of Ecology, Corps of Engineers, EPA, March 2006, as amended).

1. Baseline information of quantitative data collection or a review and synthesis of existing data for both the project impact zone and the proposed mitigation site.
2. Environmental goals and objectives that describe the purposes of the mitigation measures. This should include a description of site-selection criteria, identification of target evaluation species, and resource functions.
3. Performance standards for the specific criteria for fulfilling environmental goals, and for beginning remedial action or contingency measures. They may include water quality standards, species richness and diversity targets, habitat diversity indices, or other ecological, geological or hydrological criteria. The following shall be considered the minimum performance standards for approved sensitive area alterations:
 - a. Sensitive area functions and improved habitat for fish and wildlife are improved over those of the original conditions.
 - b. Hydrologic conditions, hydroperiods and watercourse channels are improved over existing conditions and the specific performance standards specified in the approved mitigation plan are achieved.
 - e. Acreage requirements for enhancement or creation are met.
 - f. Vegetation native to the Pacific Northwest is installed and vegetation survival and coverage standards over time are met and maintained.
 - g. Buffer and bank conditions and functions exceed the original state.

STAFF PROPOSED REVISIONS SECTION 10

- h. Stream channel habitat and dimensions are maintained or improved such that the fisheries habitat functions of the compensatory stream reach meet or exceed that of the original stream.
4. A detailed construction plan of the written specifications and descriptions of mitigation techniques. This plan should include the proposed construction sequence and construction management, and be accompanied by detailed site diagrams and blueprints that are an integral requirement of any development proposal.
5. Monitoring and/or evaluation program that outlines the approach and frequency for assessing a ~~progress of~~ and the completed project. An outline shall be included that spells out how the monitoring data will be evaluated and reported, ~~and frequency~~.
6. Maintenance plan that outlines the activities and frequency of maintenance to ensure compliance with performance standards.
7. Contingency plan identifying potential courses of action and any corrective measures to be taken when monitoring or evaluation indicates project performance standards have not been met.
8. Performance security or other assurance devices.

E. Mitigation Timing

1. Mitigation projects shall be completed prior to activities that will permanently disturb sensitive areas or their buffers and either prior to or immediately after activities that will temporarily disturb sensitive areas.
2. Construction of mitigation projects shall be timed to reduce impacts to existing wildlife, flora and water quality, and shall be completed prior to use or occupancy of the activity or development. The Director may allow activities that permanently disturb wetlands or watercourses prior to implementation of the mitigation plan under the following circumstances:
 - a. To allow planting or re-vegetation to occur during optimal weather conditions;
 - b. To avoid disturbance during critical wildlife periods; or
 - c. To account for unique site constraints that dictate construction timing or phasing.
3. Monitoring of buffer alterations shall be required for three to five years. All other alterations shall be monitored for minimum of five years.

F. Corrective Actions and Monitoring

The Director shall require subsequent corrective actions and long-term monitoring of the project if adverse impacts to regulated sensitive areas or their buffers are identified.

STAFF PROPOSED REVISIONS SECTION 10

G. Recording

The property owner receiving approval of a use or development pursuant to the Shoreline Master Program shall record the City-approved site plan clearly delineating the sensitive area and its buffer with the King County Division of Records and Elections. The face of the site plan must include a statement that the provisions of this Chapter, as of the effective date of the ordinance from which the Shoreline Management Program derives or thereafter amended, control use and development of the subject property, and provide for any responsibility of the latent defects or deficiencies.

H. Assurance Device

1. The Director may require a letter of credit or other security device acceptable to the City, to guarantee performance and maintenance requirements. All assurances shall be on a form approved by the City Attorney.
2. When alteration of a sensitive area is approved, the Director may require an assurance device, on a form approved by the City Attorney, to cover the monitoring costs and correction of possible deficiencies for the term of the approved monitoring and maintenance program. 3. The assurance device shall be released by the Director upon receipt of written confirmation submitted to the Department from the applicant's qualified professional that the mitigation or restoration has met its performance standards and is successfully established. Should the mitigation or restoration meet performance standards and be successfully established in the third or fourth year of monitoring, the City may release the assurance device early. The assurance device may be held for a longer period, if at the end of the monitoring period, the performance standards have not been met or the mitigation has not been successfully established.
3. Release of the security does not absolve the property owner of responsibility for maintenance or correcting latent defects or deficiencies or other duties under law.

SECTION 11 PUBLIC ACCESS: SUMMARY SHEET

11.1 APPLICABILITY124

Policy Question

Should the SMP incorporate proportionality for meeting public access requirements?

Issues Raised/Options Proposed

At least five comments were received on the need to incorporate proportionality into the requirements for public access when a project would create an increase in demand for public access to the shoreline.

Staff Recommended Solution

When development proposals are received, staff applies proportionality to the development standards applicable to the project. The same would be true with the public access standards in the PC Recommended Draft SMP. Staff recommends no additions to this section.

If the Council would like to incorporate proportionality language into the SMP, staff proposes the following language to be added to the draft SMP (page 124):

For the purposes of this section, an “increase in demand for public access” is determined by evaluating whether the development reflects an increase in the land use intensity, for example converting a warehouse to office or retail use, or a significant increase in the square footage of an existing building. A significant increase is defined as an increase of 3,000 square feet. The amount of public access required will be proportional to the amount of increase in the demand for public access. Depending on the amount of increase, the project may utilize the alternative provisions for meeting public access in Section 11.6 C.

Exhibit Reference/Subject Property

See Exhibits 6, 7, 8, 21, 25

Technical Correction

Clarify language of this section and acknowledge that if a master trail plan is prepared and accepted by the City then the provisions of Section 11.1 and 11.2 will have been met. The proposed changes are as follows:

11.1 Applicability

A. Public access to or along the shoreline as described in Section 11 shall be provided on all property that abuts the Green/Duwamish River shoreline in accordance with this section as further discussed below where any of the following conditions are present.

1. Where a development or use will create increased demand for public access to the shoreline, the development or use shall provide public access to mitigate this impact.

SECTION 11 PUBLIC ACCESS SUMMARY SHEET

2. Where a development or use will interfere with an existing public access way, the development or use shall provide public access to mitigate this impact. Impacts to public access may include blocking access or discouraging use of existing on-site or nearby accesses.
3. Where a use or development will interfere with a public use of lands or waters subject to the public trust doctrine, the development shall provide public access to mitigate this impact.
4. Where the development is proposed by a public entity or on public lands.
5. Where identified on the Shoreline Public Access Map.

For the purposes of this section, an “increase in demand for public access” is determined by evaluating whether the development reflects an increase in the land use intensity, for example converting a warehouse to office or retail use, or a significant increase in the square footage of an existing building. A significant increase is defined as an increase of 3,000 square feet.

The terms and conditions of Section 11.1 and 11.2 shall be deemed satisfied if the applicant and the City agree upon a master trail plan providing for public paths and trails within a parcel or group of parcels.

Staff Recommended Solution

Staff recommends including the language identified above.

11.2 GENERAL STANDARDS.....124

Technical Correction

In reviewing the language for the section 11.2 D, it appeared that the word “provide” did not fit.

Staff Recommended Solution

Staff recommends deleting the word “provide” from the text of this section.

11.2 D. Approved signs indicating the public’s right of access and hours of access, if restricted, shall be constructed, installed and maintained by the applicant in conspicuous locations at public access sites. Signs should be designed to distinguish between public and ~~provide~~-private areas. Signs controlling or restricting public access may be approved as a condition of permit approval.

Technical Correction

The lettering in this subsection included two letter “F’s”.

Staff Recommended Solution

Staff recommends correcting the lettering as follows:

— **F. G.** Shared public access between developments is encouraged. Where access is to be shared between adjacent developments, the minimum width for the individual access easement may be reduced; provided.

SECTION 11 PUBLIC ACCESS SUMMARY SHEET

that the total width of easements contributed by each adjacent development equals a width that complies with Fire Department requirements and/or exceeds the minimum for an individual access.

Technical Correction

The lettering of the last item in subsection 11.2 should be corrected. There is also redundant language in the second line.

Staff Recommended Solution

Staff recommends correcting the lettering and removing the redundant language as follows:

~~G. H.~~ Public access sites shall be connected directly to the nearest public area (e.g., street, public park, or adjoining public access easement), ~~typically the nearest public area.~~ Where connections are not currently possible, the site shall be designed to accommodate logical future connections.

11.3 REQUIREMENTS FOR SHORELINE TRAILS.....126

No changes proposed to PC Draft.

11.4 PUBLICALLY-OWNED SHORELINES.....126

No changes proposed to PC Draft.

5 PUBLIC ACCESS INCENTIVES.....127

No changes proposed to PC Draft.

11.6 EXEMPTIONS FROM PROVISION OF ON-SITE PUBLIC ACCESS.....128

Technical Correction

Remove reference to decision process for permit review in 11.6 B and correct punctuation in 11.6. C 3.

Staff Recommended Solution

The Department of Ecology has recommended removing references to underlying zoning requirements as this will incorporate those sections of the City’s municipal code into the SMP and require Ecology review and approval. The underlying zoning will determine the type of decision permit that will be required,. In addition, the punctuation in 11.C.3 should be changed from a semi-colon to a period. Staff recommends revision to 11.6 B and 11.6. C. as follows:

B. In order to meet any of the above referenced conditions, the applicant must first demonstrate, and the City determine in its findings ~~through a Type II decision,~~ that all reasonable alternatives have been exhausted, including but not limited to:

1. Regulating access by such means as maintaining a gate and/or limiting hours of use;
2. Designing separation of uses and activities through fencing, terracing, hedges or other design features; or
3. Providing access on a site geographically separate from the proposal such as a street end cannot be accomplished.

SECTION 11 PUBLIC ACCESS SUMMARY SHEET

C. If the above conditions are demonstrated, and the proposed development is not subject to the Parks Impact Fee, alternative provisions for meeting public access are required and include:

1. Development of public access at an adjacent street end;
2. Protection through easement or setbacks of landmarks, unique natural features or other areas valuable for their interpretive potential
3. Contribution of materials and/or labor, toward projects identified in the Parks and Recreation Master Plan, the Shoreline Restoration Plan, or other City adopted plans;

B. In order to meet any of the above referenced conditions, the applicant must first demonstrate, and the City determine in its findings ~~through a Type II decision~~, that all reasonable alternatives have been exhausted, including but not limited to:

1. Regulating access by such means as maintaining a gate and/or limiting hours of use;
2. Designing separation of uses and activities through fencing, terracing, hedges or other design features; or
3. Providing access on a site geographically separate from the proposal such as a street end cannot be accomplished.

C. If the above conditions are demonstrated, and the proposed development is not subject to the Parks Impact Fee, alternative provisions for meeting public access are required and include:

4. Development of public access at an adjacent street end;
5. Protection through easement or setbacks of landmarks, unique natural features or other areas valuable for their interpretive potential
6. Contribution of materials and/or labor, toward projects identified in the Parks and Recreation Master Plan, the Shoreline Restoration Plan, or other City adopted plans;

SECTION 12 SHORELINE DESIGN GUIDELINES: SUMMARY SHEET

12.1 RELATIONSHIP OF STRUCTURES TO SITE 131

No changes proposed to PC Draft.

12.2 BUILDING DESIGN 132

No changes proposed to PC Draft.

12.3 DESIGN OF PUBLIC ACCESS..... 132

No changes proposed to PC Draft.

SECTION 13 SHORELINE RESTORATION: SUMMARY SHEET

Section 13 135

Technical Change

Clarify role of Restoration Plan in SMP as follows:

The Shoreline Restoration Plan, found in Appendix B, identifies the sites that have been identified to-date as possible locations for habitat restoration along the Green/Duwamish River. The City will continue to add sites to the Restoration Plan as they are identified and will include them in the City's Capital Improvement Program for acquisition and improvement. Project sites in the Transition Zone have the highest priority for acquisition. Amendments or revisions to the Restoration Plan do not require an amendment to the Shoreline Master Program.

Staff Recommended Solution

The Department of Ecology, in verbal comments, suggested clarifying the connection between the SMP and the Restoration Plan. Staff recommends insert language noted above in the first two sentences. The last sentence is recommended to place emphasis on restoration projects in the Transition Zone, given its important role in salmon recovery.

13.1 Shoreline Substantial Development Permit Not Required 141

Technical Change

Acknowledge the adoption of HB 2199, which changed state law to allow certain properties to be exempt from certain SMA requirements if they are adjacent to restoration projects and revise text under Section 13.1 as follows:

Shoreline restoration projects shall be allowed without a Shoreline Substantial Development Permit when these projects meet the criteria established by WAC 173-27-040(o) and (p) and H.B. 2199.

Staff Recommended Solution

Staff proposes revising the PC Draft SMP to reflect the Legislature's adoption of HB 2199 as noted above.

13.2. Changes in Shoreline Jurisdiction Due to Restoration141-143

Technical Correction

The technical corrections in this section help implement proposed new **Policy 5.9 4**, found on page 44 of the clean draft of the Planning Commission Recommended Draft SMP. The proposed revisions are as follows:

13.2 Changes in Shoreline Jurisdiction Due to Restoration

Relief may be granted from shoreline master program standards and use regulations in cases where shoreline restoration projects result in a change in the location of the OHWM and associated shoreline jurisdiction on the subject property and/or adjacent properties and where application of shoreline master program regulations would preclude or interfere with the uses permitted by the underlying zoning, thus presenting a hardship to the project proponent.

A. Applications for relief, as specified on subsection B below must meet the following criteria:

1. The proposed relief is the minimum necessary to relieve the hardship;
2. After granting the proposed relief, there is net environmental benefit from the restoration project; and
3. Granting the proposed relief is consistent with the objectives of the shoreline restoration project and with the shoreline master program.

Where a shoreline restoration project is created as mitigation to obtain a development permit, the project proponent required to perform the mitigation is not eligible for relief under the provisions of this section.

B. A. The portion of property that moves from outside shoreline jurisdiction to inside shoreline jurisdiction as a result of the shoreline restoration project:

1. may be developed for the full range of uses of the underlying zoning consistent with the zoning code, including uses that are not water-oriented;
- ~~1.2.~~is not required to obtain a shoreline substantial development permit;
- ~~2.3.~~is not subject to the SMP provisions for public access;
- ~~3.4.~~may be developed for the full range of uses of the underlying zoning is not subject to shoreline design review; and
- ~~4.5.~~while required to obtain a shoreline substantial development permit if over the thresholds, is not subject to the development standards set forth in this Program, except as set forth in Section 13.2 C.

The intent of the exemptions identified in A 1-4 is to implement the restoration projects of the Shoreline Master Program Restoration Plan, which reflect the projects identified in the Water Resource Inventory (WRIA) 9 Plan pursuant to Policy 5.2 of this Master Program. Projects will continue to be added to the Restoration Plan as they are identified.

C. B. Consistent with the provisions of subsection A., above, tThe Shoreline Residential Environment Buffer, High Intensity or Urban Conservancy Environment Buffer width may be reduced to no less than 25 feet measured from the new location of the OHWM for the portion of the property that moves from outside the shoreline jurisdiction to inside shoreline jurisdiction as a result of the shoreline restoration project, subject to the following standards:

SECTION 13 SHORELINE RESTORATION: SUMMARY SHEET

1. The 25 foot buffer area must be vegetated according to the requirements of the Vegetation Protection and Landscaping Section or as otherwise approved by the City; and
2. The proponents of the restoration project are responsible for the installation and maintenance of the vegetation.

D.C. The habitat restoration project proponents must record with King County a survey that identifies the location of the OHWM location prior to implementation of the shoreline restoration project, any properties and structures that fall within the shoreline jurisdiction and the new location of the OHWM once construction of the shoreline restoration project is completed and any properties that are brought under shoreline jurisdiction due to the restoration project. As the location of the OHWM is not static, it may be necessary for future projects to re-survey the location of the OHWM.

D.E. Shoreline restoration projects must obtain all U.S. Army Corps of Engineers and Washington State Department of Fish and Wildlife approvals as well as written approval from the City.

Staff Recommended Solution

HB 2199 establishes criteria that must be utilized when reviewing requests for relief from provisions of the Shoreline Management. The new proposed subsection A above incorporates these criteria. Subsection B the new exemption that has been added to RCW 90.58.030 from obtaining a shoreline substantial development permit. Staff recommends including the proposed changes to PC Draft to reflect Legislature's adoption of HB 2199.

Issues Raised/Options Proposed

One property owner, during Planning Commission review of the staff draft SMP raised concerns about the impact of restoration projects on adjacent private property as his property is located to the Duwamish Gardens restoration site, recently acquired by the City and King County for a restoration project. The City worked with King County and State legislators to support adoption of H.B. 2199. H.B. 2199 was adopted just as the Planning Commission completed its work on the SMP, so the Planning Commission Recommended Draft SMP does not reflect the needed revisions to this section to reflect adoption of H.B. 2199. The Department of Ecology, in a telephone conversation, commented on the need to clarify that the Restoration Plan may continue to have projects added without the need to amend the SMP.

13. SHORELINE RESTORATION

The Shoreline Restoration Plan, found in Appendix B, identifies the sites that have been identified to-date as possible locations for habitat restoration along the Green/Duwamish River. The City will continue to add sites to the Restoration Plan as they are identified and will include them in the City's Capital Improvement Program for acquisition and improvement. Project sites in the Transition Zone have the highest priority for acquisition. Amendments or revisions to the Restoration Plan do not require an amendment to the Shoreline Master Program.

13.1 Shoreline Substantial Development Permit Not Required

Shoreline restoration projects shall be allowed without a Shoreline Substantial Development Permit when these projects meet the criteria established by WAC 173-27-040(o) and (p) and H.B. 2199.

13.2 Changes in Shoreline Jurisdiction due to Restoration

Relief may be granted from shoreline master program standards and use regulations in cases where shoreline restoration projects result in a change in the location of the OHWM and associated shoreline jurisdiction on the subject property and/or adjacent properties; the following standards shall apply; and where application of shoreline master program regulations would preclude or interfere with the uses permitted by the underlying zoning, thus presenting a hardship to the project proponent.

A. Applications for relief, as specified on subsection B below must meet the following criteria:

1. The proposed relief is the minimum necessary to relieve the hardship;
2. After granting the proposed relief, there is net environmental benefit from the restoration project; and
3. Granting the proposed relief is consistent with the objectives of the shoreline restoration project and with the shoreline master program.

Where a shoreline restoration project is created as mitigation to obtain a development permit, the project proponent required to perform the mitigation is not eligible for relief under the provisions of this section.

BA. The portion of property that moves from outside shoreline jurisdiction to inside shoreline jurisdiction as a result of the shoreline restoration project:

1. may be developed for the full range of uses of the underlying zoning consistent with the zoning code, including uses that are not water-oriented;
2. is not required to obtain a shoreline substantial development permit;
3. is not subject to the SMP provisions for public access;

4. may be developed for the full range of uses of the underlying zoning is not subject to shoreline design review; and
5. ~~while required to obtain a shoreline substantial development permit if over the thresholds,~~ is not subject to the development standards set forth in this Program, except as set forth in Section 13.2 C.

The intent of the exemptions identified in A 1-4 is to implement the restoration projects of the Shoreline Master Program Restoration Plan, which reflect the projects identified in the Water Resource Inventory (WRIA) 9 Plan pursuant to Policy 5.2 of this Master Program. Projects will continue to be added to the Restoration Plan as they are identified.

CB. Consistent with the provisions of subsection A., above, ~~t~~The Shoreline Residential Environment Buffer, High Intensity or Urban Conservancy Environment Buffer width may be reduced to no less than 25 feet measured from the new location of the OHWM for the portion of the property that moves from outside the shoreline jurisdiction to inside shoreline jurisdiction as a result of the shoreline restoration project, subject to the following standards:

1. The 25 foot buffer area must be vegetated according to the requirements of the Vegetation Protection and Landscaping Section or as otherwise approved by the City; and
2. The proponents of the restoration project are responsible for the installation and maintenance of the vegetation.

DC. The habitat restoration project proponents must record with King County a survey that identifies the location of the OHWM location prior to implementation of the shoreline restoration project, any properties and structures that fall within the shoreline jurisdiction and the new location of the OHWM once construction of the shoreline restoration project is completed and any properties that are brought under shoreline jurisdiction due to the restoration project. As the location of the OHWM is not static, it may be necessary for future projects to re-survey the location of the OHWM.

D. Shoreline restoration projects must obtain all U.S. Army Corps of Engineers and Washington State Department of Fish and Wildlife approvals as well as written approval from the City.

SECTION 14 ADMINISTRATION: SUMMARY SHEET

14.1 APPLICABILITY OF SMP AND SUBSTANTIAL DEVELOPMENT PERMIT.....137

Technical Correction

In the 6/30/09 letter DOE stated that the extent of the SMP jurisdiction is required to be either 200' from the OHWM or 200' from the floodway, whichever is greater. The recent FEMA remapping shows additional floodway behind non-certified levees that would extend the SMP jurisdiction quite significantly in the area east of the river between S. 182nd and S. 190th Streets. While these areas would be subject to shoreline permitting requirements it is unclear how we could reasonably enforce the regulations given their distance from the river and the highly developed nature of the area.

Staff Recommended Solution

The SMA allows an alternate definition of floodway that could be used to define the shoreline jurisdiction at RCW 90.58.030 2 g. This would base the floodway on a site specific determination of areas that are flooded with reasonable regularity, allowing us to exclude those areas historically protected from flooding by non-certified levees. This would change the definition in Chapter 3 and on page 137 to:

The Tukwila Shoreline Jurisdiction includes the channel of the Green/Duwamish River, its banks, the upland area which extends from the ordinary high water mark landward for 200 feet on each side of the river, floodways and all associated wetlands within its floodplain. For the purpose of determining shoreline jurisdiction the floodway shall not include those lands that have historically been protected by flood control devices and therefore have not been subject to flooding with reasonable regularity.

14.2 SUBSTANTIAL DEVELOPMENT PERMIT REQUIREMENTS.....137

Technical Correction

The PC draft references the permit application procedures from the Zoning Code contained in TMC 18.104. In the 6/30/09 letter DOE stated that "all references to the zoning code need to identify the section of the code, the date of adoption or the section needs to be stated verbatim in the SMP. Ecology will need to review each referenced zoning code section in the SMP."

Staff Recommended Solution

Staff recommends deleting references to the permit application procedures in the Zoning Code so as not to open that to DOE review. The Zoning Code will still contain a rewritten Shoreline Overlay District chapter and describe the procedures for Shoreline Substantial Development Permits, Shoreline Variances, Shoreline Conditional Use Permits etc.

SECTION 14 ADMINISTRATION: SUMMARY SHEET

A. Permit Application Procedures

Applicants for a Shoreline Substantial Development Permit shall comply with current permit application procedures in TMC 18.104.

14.3 SHORELINE CONDITIONAL USE PERMIT138

Technical Correction

The recently adopted housekeeping amendments changed conditional use permits from a Type 4 to a Type 3 decision but since that references the Zoning Code standards staff recommends that references to the Zoning Code be struck per the discussion in 14.2.

B. Application

Applicants for a Shoreline Conditional Use Permits shall comply with all current permit application procedures. ~~are a Type 4 Permit processed under TMC 18.104.~~

~~C. Application requirements~~

~~Applicants must meet all requirements for permit application and approvals indicated in TMC 18.104 and the SMP.~~

14.4 SHORELINE UNCLASSIFIED PERMITS.....139

Issues Raised/Options Proposed

The 6/30/09 DOE comment letter raised the issue that the term “unclassified use” has a different meaning under the Shoreline Management Act than in Tukwila’s codes. As part of the review of the Shoreline Use Table requested by DOE staff reexamined the need for a shoreline unclassified use permit.

Staff Recommended Solution

Staff recommends that this section be stricken and all shoreline uses be categorized as either permitted, conditional or not allowed. This would not relieve uses of the need to obtain a zoning unclassified use permit if required by the underlying zoning district. For further information see the Shoreline Use Table in Chapter 8.

14.5 SHORELINE VARIANCE PERMITS140

Issues Raised/Options Proposed

Public comments have suggested that an additional process be added to the SMP to allow modification to SMP standards, such as buffer widths, without DOE review and with less stringent criteria than required for a variance.

Staff Recommended Solution

The PC draft includes provisions for reduction of the shoreline buffer at the time a property constructs the shoreline profile appropriate for that reach of the river, see 7.7 C and 7.8 B. Staff recommends that other requests for relief from SMP standards continue to be processed through the variance process.

SECTION 14 ADMINISTRATION: SUMMARY SHEET

Technical Correction

The reference to the Zoning Code should be struck per the discussion in 14.2.

B. Application requirements

Applicants for a Shoreline Variance shall comply with all current permit application procedures~~must meet all requirements for a Type 3 permit application and approvals indicated in TMC 18.104.~~

14.6 PRE-EXISTING DEVELOPMENT.....142

Issue 1 – Use of the term “Pre-Existing” rather than “Non-Conforming”

Issues Raised/Options Proposed

Public comments were received on this issue indicating that replacement of the term “non-conforming with “pre-existing” would not ease the financial impacts associated with buildings or uses being out of compliance with the new SMP regulations. See Exhibit 11 for suggested language.

Staff Recommended Solution

Staff recommends that if there is no benefit to the term “pre-existing” that it be replaced throughout the SMP with the more widely understood term “non-conforming”. Accept language from Exhibit 11 p.4.

Issue 2 – Extension of Time for Use or Structure Conformity

Policy Questions

Should the length of time that a non-conforming use can lapse and still be reestablished be increased beyond 24 months?

Should the length of time that a non-conforming structure can be vacant and still be reused be increased beyond 24 months?

Issues Raised/Options Proposed

Uses that are non-conforming to SMP standards may continue and tenants may change but if the use ceases for more than 24 months it can only be replaced by a conforming use. Public comments on issue indicated that 24 months may not be a sufficient amount of time to find another tenant in the same line of work. The extension would have the effect of postponing compliance with the goals of the SMP. For specific proposed language see Exhibit 5 Attachment D.

Staff Recommended Solution

Staff has developed language to allow the City Council to grant extensions as a conditional use permit if the applicant meets criteria and performs landscape enhancement proportional to the amount of extension requested. See the attached strikeout/underline language at 14.5 C.

SECTION 14 ADMINISTRATION: SUMMARY SHEET

Issue 3 – Replacement of Non-Conforming Use

Policy Question

Should one non-conforming use be allowed to replace another?

Issues Raised/Options Proposed

The PC draft does not allow a use that is non-conforming to SMP standards to be replaced by another non-conforming use that is permitted by the underlying zoning. Public comments on issue indicated that in the case of a building that is within the shoreline buffer if a tenant is lost there may be no viable replacement use and the building would have to remain vacant. The proposed replacement would have the effect of postponing compliance with the goals of the SMP. For specific proposed language see Exhibit 5 Attachment D, Exhibit 8.

Staff Recommended Solution

Staff has developed additional criteria for the Shoreline Conditional Use permit to allow the City Council to permit a new non-conforming use if the applicant meets criteria and performs landscape enhancement of the shoreline buffer. See the attached strikeout/underline language at 14.5 A5.

Issue 4 – Expansion of Non-Conforming Single-Family Structures

Policy Question

Should a single-family structure with non-conforming shoreline setbacks be allowed to expand along the ground floor?

Issues Raised/Options Proposed

The PC draft contains language similar to the city-wide non-conforming rules that allows single-family houses to increase their intrusion into the shoreline buffer by 50% so long as the expansion is not any closer to the OHWM, see B 6 p.144. DOE has expressed concerns that allowing this type of expansion could have negative cumulative impacts if many homeowners opted to use the provision (6/30/09 letter p. 8). The expansion would work against the public safety goal of reducing structures at risk due to bank failure.

Staff Recommended Solution

Staff recommends retaining the PC draft language.

Issue 5 – Reconstruction or Replacement of Non-Conforming Structure

Policy Questions

Should a non-conforming structure be allowed to be completely rebuilt in its original location?

Should residential structures be treated differently than commercial or industrial structures?

SECTION 14 ADMINISTRATION: SUMMARY SHEET

Issues Raised/Options Proposed

The PC draft allows all existing structures that are non-conforming to SMP standards to be completely rebuilt or replaced on their original sites so long as they do not threaten public health or safety, see B 7 p.144. This is much broader than the city-wide non-conforming rules that only allow this reconstruction for residential structures in residential zones. Allowing this type of continued investment in a structure that does not comply with the SMP would have the effect of postponing implementation of its goals.

DOE expressed concern that allowing total replacement would defeat the purpose of the buffers and proposed that it only be allowed for single family houses after approval of a conditional use permit (6/30/09 letter p. 8).

Staff Recommended Solution

Staff recommends retaining the PC draft language for B5 that does not consider any residential uses in residential zones to be non-conforming and allows for rebuilding if accidentally destroyed. This is consistent with the city-wide non-conforming provisions at 18.70.

Item B2, p.143, is redundant with item B7, p. 144, but more restrictive on the ability to rebuild. Depending on the Council's policy direction one of the two should be struck and the other modified.

Issue 6 – Alterations or Expansions for Public Safety Reasons

Technical Correction

In the 6/30/09 letter DOE requested that building modifications allowed due to public safety concerns be limited to the minimum necessary to address those concerns, see section C p.144.

Staff Recommended Solution

Staff recommends that a third criterion be added to the section limiting such expansions.

DC. Building Safety

3. Alterations or expansions permitted under this section shall be the minimum necessary to meet the public safety concerns.

14. ADMINISTRATION

The Administrative procedures below are designed to:

- Assign responsibilities for implementation of the Master Program and Shoreline Permit
- Establish an orderly process by which to review proposals and permit applications
- Ensure that all persons affected by this Master Program are treated in a fair and equitable manner.

14.1 Applicability of Shoreline Master Program and Substantial Development Permit

A. Development in the Shoreline Jurisdiction

Based on guidelines in the Shoreline Management Act for a minimum shoreline jurisdiction, Tukwila's Shoreline Jurisdiction is defined as follows:

The Tukwila Shoreline Jurisdiction includes the channel of the Green/Duwamish River, its banks, the upland area which extends from the ordinary high water mark landward for 200 feet on each side of the river, floodways and all associated wetlands within its floodplain. The floodway shall not include those lands that have historically been protected by flood control devices and therefore have not been subject to flooding with reasonable regularity.

B. Applicability

The Tukwila Shoreline Master Program applies to uses, change of uses, activities or development that occurs within the above-defined Shoreline jurisdiction. All proposed uses and development occurring within the shoreline jurisdiction must conform to chapter 90.58 RCW, the Shoreline Management Act and this master program whether or not a permit is required.

14.2 Substantial Development Permit Requirements

A. Permit Application Procedures

Applicants for a Shoreline Substantial Development Permit shall comply with current permit application procedures ~~in TMC 18.104.~~

B. Exemptions

1. To qualify for an exemption, the proposed use, activity or development must meet the requirements for an exemption as described in WAC 173-27-040, except for properties that meet the requirements of the Shoreline Restoration Section. The purpose of a shoreline exemption is to provide a process for uses and activities which do not trigger the need for a substantial development permit, but require compliance with all provisions of the City's SMP.
2. The Director may impose conditions to the approval of exempted developments and / or uses as necessary to assure compliance of the project with the SMA and the Tukwila SMP, per WAC 173-27-040(e). For example, in the case of development subject to a building permit, but exempt from the shoreline permit process, the Building Official or other permit authorizing official, through consultation with the Director, may attach shoreline management terms and conditions to Building Permits and other permit approvals pursuant to RCW 90.58.140.

14.3 Shoreline Conditional Use Permit

A. Purpose

As stated in WAC 173-27-160, the purpose of a Conditional Use Permit (CUP) is to allow greater flexibility in the application of use regulations of the Shoreline Master Program in a manner consistent with the policies of RCW 90.58.020. In authorizing a conditional use, special conditions may be attached to the permit by the City or the Department of Ecology to prevent undesirable effects of the proposed use and/or assure consistency of the project with the SMA and the City's SMP. Uses which are specifically prohibited by the Shoreline Master Program may not be authorized with approval of a CUP.

B. Application

Applicants for a Shoreline Conditional Use Permits shall comply with all current permit application procedures.~~are a Type 4 Permit processed under TMC 18.104.~~

~~C. Application requirements~~

~~Applicants must meet all requirements for permit application and approvals indicated in TMC 18.104 and the SMP.~~

CD. Approval Criteria

1. Uses classified as conditional uses may be authorized, provided that the applicant can demonstrate **all** of the following:
 - a. That the proposed use will be consistent with the policies of RCW 90.58.020 and the policies of the Tukwila Shoreline Master Program;
 - b. That the proposed use will not interfere with the normal public use of public shorelines;
 - c. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area and with uses planned for the area under the

14. ADMINISTRATION: STAFF PROPOSED REVISIONS

- comprehensive plan and SMP;
- d. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and
 - e. That the public interest suffers no substantial detrimental effect.
2. In the granting of all conditional use permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if conditional use permits were granted to other developments in the area where similar circumstances exist, the total of the conditional uses shall also remain consistent with the policies of RCW 90.58 and all local ordinances and shall not produce substantial adverse effects to the shoreline environment.

14.4 Shoreline Unclassified Permits

A. Purpose

~~The purpose of a Shoreline Unclassified Use Permit is to establish procedures for the regulation of uses possessing characteristics of such unusual, large-scale, unique or special form as to make impractical their being included automatically in any class of use as set forth in this shoreline master program.~~

B. Application

~~Unclassified uses are a Type 5 Permit, processed under TMC 18.104, with any appeal of a City Council decision to go to the Shoreline Hearings Board.~~

C. Application Requirements

~~Applicants must meet all the requirements for permit application and approvals indicated in TMC 18.104 and the SMP. Development that meets the criteria at TMC 18.66.120 1. is not required to obtain a shoreline unclassified use permit.~~

D. Approval Criteria

~~Uses classified as unclassified uses may be authorized, provided that the applicant can demonstrate **all** of the following:~~

- ~~1. That the proposed use will be consistent with the policies of RCW 90.58.020 and the policies of the Tukwila Shoreline Master Program.~~
- ~~2. That the proposed use will not interfere with the normal public use of public shorelines;~~
- ~~3. That the proposed use of the site and design of the project will be compatible with other permitted uses within the area and with uses planned for the area under the comprehensive plan and SMP;~~
- ~~4. That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located;~~
- ~~5. That the public interest suffers no substantial detrimental effect.~~
- ~~6. That the proposed use will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity;~~
- ~~7. That the proposed use will meet or exceed the same standards for parking, landscaping, yards and other development regulations that are required in the district it will occupy.~~

14. ADMINISTRATION: STAFF PROPOSED REVISIONS

- ~~8. In the event that a proposed essential public facility of a countywide or statewide nature creates an unavoidable significant adverse environmental or economic impact on the community, compensatory mitigation shall be required. Compensatory mitigation shall include public amenities, incentives or other public benefits which offset otherwise unmitigated adverse impacts of the essential public facility. Where appropriate, compensatory mitigation shall be provided as close to the affected area as possible; and~~
- ~~9. For uses in residential areas, applicants shall demonstrate that there is no reasonable nonresidential alternative site for the use and that the use provides some tangible benefit for the neighborhood.~~

14.45 Shoreline Variance Permits

A. Purpose

The purpose of a Shoreline Variance Permit is strictly limited to granting relief from specific bulk, dimensional, or performance standards set forth in this Master Program where there are extraordinary or unique circumstances relating to the physical character or configuration of property such that the strict implementation of the Master Program will impose unnecessary hardships on the applicant or thwart the Shoreline Management Act policies as stated in RCW 90.58.020. Reasonable Use requests that are located in the shoreline must be processed as a Variance, until such time as the Shoreline Management Act is amended to establish a process for reasonable uses.

B. Application requirements

~~Applicants for a Shoreline Variance shall comply with all current permit application procedures must meet all requirements for a Type 3 permit application and approvals indicated in TMC 18.104.~~

C. **Shoreline Variance permits** should be granted in circumstances where denial of the permit would result in a thwarting of the policy enumerated in RCW 90.58.020. In all instances the applicant must demonstrate that extraordinary circumstances exist and the public interest will suffer no substantial detrimental effect.

D. Approval Criteria

A Shoreline Variance Permit for a use, activity or development that will be located landward of the ordinary high water mark and/or landward of any wetland may be authorized provided the applicant can demonstrate **all** of the following:

1. That the strict application of the bulk, dimensional, or performance standards set forth in the Master Program preclude or significantly interfere with a reasonable use of the property not otherwise prohibited by the Master Program;
2. That the hardship described above is specifically related to the property and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the Master Program, and not from the owner's own actions or deed restrictions; and that the variance is necessary because of these conditions in order to provide the owner with use rights and privileges permitted to other properties in the vicinity and zone in which the property is situated;
3. That the design of the project will be compatible with other authorized uses within the area and

14. ADMINISTRATION: STAFF PROPOSED REVISIONS

- with uses planned for the area under the comprehensive plan and SMP and will not cause adverse impacts to adjacent properties or the shoreline environment;
4. That the variance will not constitute a grant of special privilege not enjoyed by other properties in the area;
 5. That the variance is the minimum necessary to afford relief; and
 6. That the public interest will suffer no substantial detrimental effect.

E. Shoreline Variance Permits Waterward of OHWM

1. Shoreline Variance permits for development and/or uses that will be located either waterward of the ordinary high water mark or within any sensitive area may be authorized only if the applicant can demonstrate all of the following:
 - a. That the strict application of the bulk, dimensional or performance standards set forth in this Master Program preclude all reasonable permitted use of the property; and
 - b. That the proposal is consistent with the criteria established under D above; and
 - c. The public rights of navigation and use of the shorelines will not be adversely affected by the granting of the variance.
2. In the granting of all variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area such that the total of the variances would remain consistent with RCW 90.58.020 and not cause substantial adverse effects to the shoreline environment.
3. Variances from the use regulations of the master program are prohibited.

14.56 ~~Pre-Existing~~ Non-conforming Development

A. ~~Pre-existing~~ Non-conforming Uses

Any preexisting lawful use of land that would not be allowed under the terms of this SMP may be continued as an allowed, legal ~~pre-existing non-conforming use, defined in TMC Chapter 18.06, or as hereafter amended,~~ so long as that use remains lawful, subject to the following:

1. No such ~~pre-existing non-conforming~~ use shall be enlarged, intensified, increased or extended to occupy a greater use of the land, structure or combination of the two, than was occupied at the effective date of adoption of this SMP ~~unless TMC 18.66.120 applies;~~
2. No ~~pre-existing non-conforming~~ use shall be moved or extended in whole or in part to any other portion of the lot or parcel occupied by such use at the effective date of adoption or amendment of this SMP;
3. If any such ~~pre-existing non-conforming~~ use ceases for any reason for a period of more than 24 consecutive months, any subsequent use shall conform to the regulations specified by this SMP for the shoreline environment in which such use is located. Upon request of the owner, prior to the end of the 24 consecutive months and upon reasonable cause shown, the City Council may grant an extension of time beyond the 24 consecutive months per 14.5 C. ~~The City Council shall consider special circumstances and economic effects in re-establishing the pre-existing use;~~

4. If a change of use is proposed to a use determined to be ~~pre-existing non-conforming~~ by application of provisions in this SMP, the proposed new use must be a permitted use in the SMP or a use approved under a Conditional Use ~~or Unclassified Use~~ Permit process;. For purposes of implementing this section, a change of use constitutes a change from one Permitted, ~~or Conditional or Unclassified Use~~ category to another such use category as listed within the zoning code.
5. A structure that is being or has been used for a nonconforming use may be used for a different nonconforming use only upon the approval of a Shoreline Conditional Use permit. In addition to the conditional use criteria in Section 14.3, before approving a conditional use for a change in non-conforming use, the following findings must be made:
 - a. No reasonable alternative conforming use is practical;
 - b. The proposed use will be at least as consistent with the policies and provisions of the SMP and as compatible with the uses in the area as the preexisting use;
 - c. The use or activity is enlarged, intensified, increased or altered only to the minimum amount necessary to achieve the intended functional purpose;
 - d. The structure(s) associated with the non-conforming use shall not be expanded in a manner that increases the extent of the nonconformity;
 - e. The change in use will not create adverse impacts to shoreline ecological functions and/or processes;
 - f. The applicant restores and or/enhances the entire shoreline buffer, including but not limited to paved areas no longer in use on the property, to offset the impact of the change of use per the vegetation management standards of this program. This may include the restoration of paved areas to vegetated area if no longer in use; and
 - g. The use complies with the conditional use permit criteria of this Program.
 - h. The preference is to reduce exterior uses in the buffer to the maximum extent possible.

B. ~~Pre-existing~~Non-conforming Structures

Where a lawful structure exists at the effective date of adoption of the SMP that could not be built under the terms of the SMP by reason of restrictions on height, buffers or other characteristics of the structure, it may be continued as an allowed, legal structure so long as the structure remains otherwise lawful subject to the following provisions:

1. No such structure may be enlarged or altered in such a way that increases its degree of nonconformity or increases its impacts to the functions and values of the shoreline environment. Ordinary maintenance and repair of and upgrades to a ~~pre-existing non-conforming~~ structure is permitted, including but not limited to painting, roof repair and replacement, plumbing, wiring, mechanical equipment repair/replacement, repaving and weatherization. These and other alterations, additions or enlargements may be allowed as long as the work done does not extend further into any required buffer, increase the amount of impervious surface, or increase the impacts to the functions and values of the shoreline environment. Complete plans shall be required of all work contemplated under this section.
2. Should such structure be destroyed by any accidental means the structure may be reconstructed to its original dimensions and location on the lot. provided application is made for permits

within twelve (12) months of the date the damage occurred and all reconstruction is completed within two years of permit issuance. In the event that the property is redeveloped, such redevelopment must be in conformity with the provisions of this SMP.

3. Should such structure be moved for any reason or any distance whatsoever, it shall thereafter conform to the regulations of this SMP after it is moved.
4. When a ~~pre-existing~~non-conforming structure, or structure and premises in combination, is vacated or abandoned for 24 consecutive months, the structure, or structure and premises in combination, shall thereafter be required to be in conformance with the regulations of the SMP. Upon request of the owner, prior to the end of the 24 consecutive months, and upon reasonable cause shown, the City Council may grant an extension of time beyond the 24 consecutive months per 14.5 C. ~~The City Council shall consider special circumstances and economic impacting the sale or lease of said structure.~~
5. Residential structures and uses located in any single-family or multiple-family residential zoning district and in existence at the time of adoption of this SMP shall not be deemed nonconforming in terms of height, use, or location provisions of this title. Such buildings may be rebuilt after a fire or other natural disaster to their original dimensions, location and height, but may not be changed except as provided in the ~~pre-existing~~non-conforming uses section of this chapter.
6. Single-family structures in single- or multiple family residential zone districts, which have legally ~~pre-existing~~non-conforming setbacks from the OHWM per the SMP buffer, shall be allowed to expand the ground floor only along the existing building line(s), so long as the existing distance from the nearest point of the structure to the OHWM is not reduced, and the square footage of new intrusion into the buffer does not exceed 50% of the square footage of the current intrusion.
7. Within the shoreline jurisdiction, existing structures that do not meet the requirements of the SMP may be remodeled, reconstructed or replaced, provided that:
 - a. The new construction is within the original dimensions and location on the lot;
 - b. The new construction does not further intrude into or adversely impact the required buffer;
 - c. The new construction does not threaten the public health, safety or welfare; and
 - d. The structure otherwise meets the requirements of the SMP.
8. A ~~pre-existing~~non-conforming-use, within a ~~pre-existing~~non-conforming structure, shall not be allowed to expand into any other portion of the structure.

C. Requests for Time Extension – Nonconforming Uses and Structures

A property owner may request, prior to the end of the 24 consecutive months, an extension of time beyond the 24 consecutive months. Such a request shall be considered as a conditional use permit and may be approved only when:

1. For a nonconforming use, a finding is made that no reasonable alternative conforming use is practical;
2. For a nonconforming structure, special economic circumstances prevent the lease or sale of said structure within 24 months; and
3. The applicant restores and/or enhances the shoreline buffer on the property to offset the impact of the continuation of the pre-existing use. For nonconforming uses, the amount of

buffer to be restored and/or enhanced will be determined based on the percentage of the existing building used by the nonconforming use for which a time extension is being requested. Depending on the size of the area to be restored and/or enhanced, the Director may require targeted plantings rather than a linear planting arrangement. The vegetation management standards of this Program shall be used for guidance on any restoration/enhancement. For nonconforming structures, for each six month extension of time requested, 15% of the available buffer must be restored/enhanced..

Conditions may be attached to the permit that are deemed necessary to assure compliance with the above findings, the requirements of the master program and the Shoreline Management Act and to assure that the use will not become a nuisance or a hazard.

DC. Building Safety

1. Nothing in this SMP shall be deemed to prevent the strengthening or restoring to a safe condition of any ~~pre-existing~~non-conforming building or part thereof declared to be unsafe by order of any City official charged with protecting the public safety.
2. Alterations or expansion of a ~~pre-existing~~non-conforming use which are required by law or a public agency in order to comply with public health or safety regulations are the only alterations or expansions allowed.
3. Alterations or expansions permitted under this section shall be the minimum necessary to meet the public safety concerns.

ED. ~~Pre-existing~~Non-conforming Parking Lots

1. Nothing contained in this SMP shall be construed to require a change in any aspect of a structure or facility covered thereunder including, without limitation, parking lot layout, loading space requirements and curb-cuts, for any structure or facility which existed on the date of adoption of this SMP.
2. If a change of use takes place, or an addition is proposed, which requires an increase in the parking area by an increment less than 100%, the requirements of the SMP shall be complied with for the additional parking area.
3. If a change of use takes place, or an addition is proposed, which requires an increase in the parking area by an increment greater than 100%, the requirements of the SMP shall be complied with for the entire parking area.

FE. ~~Pre-existing~~Non-conforming Landscape Areas

1. Adoption of the vegetation protection and landscaping regulations contained in this SMP shall not be construed to require a change in the landscape improvements for any legal landscape area which existed on the date of adoption of this SMP, unless and until the property is redeveloped or alteration of the existing structure beyond the thresholds provided herein.
2. At such time as the property is redeveloped or the existing structure is altered beyond the thresholds provided herein and the associated premises does not comply with the vegetation protection and landscaping requirements of this SMP, a landscape plan which conforms to the requirements of this SMP shall be submitted to the Director for approval.

**SECTION 16 ENFORCEMENT AND APPEALS
SUMMARY SHEET**

No changes proposed to PC Draft.

SECTION 17 MASTER PROGRAM REVIEW AND AMENDMENTS: SUMMARY SHEET

Technical Correction

Correct references in Sections 17.1, 17.2, 17.3 to the Washington Administrative Code (WAC) from WAC 173-19 to **WAC 173-26**.

Staff Recommended Solution

The Department of Ecology (letter dated 6/30/09) pointed out these incorrect references. Staff recommends correcting the references in the document.

SECTION 18 LIABILITY: SUMMARY SHEET

No changes proposed to this section.

MATRIX B: Council SMP Working Matrix - Comment Summary

Exhibit #	Name	Organization	Address	Subject Site	Issues Raised	Staff Response
Verbal 1 (4/20/09)	Brian Archer		13013 56th Avenue S	Foster Point Resident	Questions include: concern that he was not notified about the meetings on the flood hazard; Channel 21 is not currently broadcasting; there needs to be more information about flood insurance for this area.	Comment acknowledged.
Verbal 2 (4/20/09)	Rick Jerabek	Costco Wholesale Corporation	999 Lake Drive, Issaquah, WA 98027	Costco	Referenced letter dated 4/20/09 signed by Kiersten Jensen; still have variety of concerns -1. uniform 125 ft. buffer width which is intended to be a natural area. Currently that area is occupied with parking and landscaping on their site - they have concerns about whether Costco could build a new building on the site; 2. proposed landscaping and parking regulations are of concern - proportionality issue - minor projects would trigger requirements for major improvements. 3. Balance needs to be struck here - there is time to appoint another citizens committee since the Council won't be reviewing the SMP for a couple months. See Exhibit 2 for written testimony.	1. At the time when the levee is reconstructed, the impacts to current parking area and access drive from private road will be evaluated. The current building is outside of the shoreline jurisdiction, so redevelopment in that building footprint would not trigger a shoreline permit unless the structure is placed within 200 feet of the OHWM; 2. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. It is the intent of the SMP to encourage property owners with river frontage to take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See staff proposed revisions to Section 9.10 to clarify and tie the amount of landscaping to the size/value of the improvements. 3. The SMP tries to balance private property rights with the requirements of the SMA. The City has opted not to appoint another Citizens Advisory Committee as the Planning Commission serves in that capacity for long range planning projects.
Verbal 3 (4/20/09)	Joseph Desimone	Desimone Trust	5609 SW Manning St, Seattle 98116	Desimone Trust	1. Concerned about the loss in property value if the SMP is approved - they have \$5 million in property value alone; 2. concerned about nonconforming use and structure section of proposed SMP and limiting the time frame for re-establishing a use also want the flexibility to have other uses in the building; 3. public access requirements not proportional to the development proposed - See Exhibit 10 for material submitted at hearing.	1. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. see proposed revisions to Section 14.6, pre-existing/nonconforming uses and structures section; 3. disagree that public access requirements are not proportional to proposed development;
Verbal 4 (4/20/09)	Dick Hinthorn	Baker Commodities	5795 S. 130th Pl. Tukwila, WA 98168	Baker Commodities	1. Concerned about increase in the buffer widths - this is a big impact on what they can do on their property; 2. vegetation and landscaping requirements - they have 2200 feet of shoreline that would be affected; 3. they request a continuation of the hearing since Council deliberations will be postponed until sometime in June.	1. Baker Commodities site has buildings that are nonconforming under existing regulations - these buildings will become more nonconforming under the proposed new buffer width; 2. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. The SMP intends to encourage property owners with river frontage totake some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See proposed revisions to Section 9.10 to address this issue. 3. Public hearing was continued to July 13, 2009.
Verbal 5 (4/20/09)	Dixie Archer		13013 56th Avenue S	Foster Point Resident	Another citizen advisory committee should be put together - a lot has happened since the last one met; concern about not receiving a mailed notice about the flood hazard - only heard about the meeting when someone left a notice at their house.	Comments acknowledged.

MATRIX B: Council SMP Working Matrix - Comment Summary

Exhibit #	Name	Organization	Address	Subject Site	Issues Raised	Staff Response
Verbal 6 (7/13/09)	John Ellingson	Bargausen Engineers		Costco	Recommend that property owner be able to request a reduction in buffer width without laying back the levee if an engineering study is prepared that shows how much room is needed to set the levee back.	The levee location is not static - erosion occurs over time, so identifying the amount of room needed today to layback the levee but not constructing the improvements until a future date could allow development to occur in an area that might ultimately be needed for levee layback.
Verbal 7 (7/13/09)	Todd Wolsey	Building Owners and Managers of King County		City-wide properties	1. Economic times are very sobering - legal nonconforming uses an issue - Redmond is taking proactive action to help businesses stay, allow like-kind uses to replace vacating uses - the two year time table too short; 2. recognize that City Council must balance environmental concerns with economic issues.	1. See proposed revisions to Section 14.6 pre-existing/nonconforming uses and structures section; 2. The SMP tries to balance private property rights with compliance with the SMA.
Verbal 8 (7/13/09)	Dick Hinthorn	Baker Commodities		Baker Commodities	Follow up to his 4/20/09 comments; 1. Baker Commodities has been at this location since the 1930's, members of property owner association that has submitted the economic study; 2. 20% of their property will be off-limits for future use; 3. vegetation management a concern; 4. process concerns - lack of work group, lack of cohesion on Planning Commission - two abstentions, one no vote on SMP; 4. ask that concerns of business community be taken into consideration.	1. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. The SMP includes a provision for the reduction of the shoreline buffer width, which would reduce the area that is not available for development; 3. Planning Commission vote reflects complexity of SMP issues; 4. Numerous revisions have been made to the SMP in response to input from business community - revisions try to balance private property concerns with requirements of SMA.
Verbal 9 (7/13/09)	Chuck Maduell	Davis, Wright Tremaine	1201 Third Avenue, #2200, Seattle, 98101-3045	Desimone Trust, Innkeepers of America, Yellow Transportation	1. Member of property owner association, 2. substantial increase in the buffer widths - buffer width not based on need to protect river functions and values, but on needs for resloping bank; justification needs to be based on functions and values; need to be able to obtain a reduction in the buffer width; 3. nonconforming uses/structures - 24 months unreasonable time frame; 4. his clients came to process late because they weren't invited.	1. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. buffer width based on a variety of factors as described in Section 7 of SMP - reduction in buffer width may be approved if bank is resloped or levee set back; 3. See proposed revisions to Section 14.6, pre-existing/nonconforming uses and structures section, although 24 month period is not increased, a time extension may be requested; 4. Comment acknowledged.
Verbal 10 (7/20/09)	Bill Toon	Foster Point resident			1. Concerned about dredging of river upstream from Kent; 2. Planning Commission doesn't represent the property owners - residents didn't give them authority to act on their behalf - constitutional rights are being impeded.	1. Not clear what dredging is being referred to - site appears to be outside of Tukwila's jurisdiction; 2. Planning Commission is designated by TMC 2.36 to advise the Mayor and Council on matters relating to land use, comprehensive planning and zoning.

MATRIX B: Council SMP Working Matrix - Comment Summary

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Verbal 11 (7/20/09)	Joseph Desimone			Multiple properties on river	1. He is one of the property owners who joined together to have the Gardner Economic analysis prepared by Matthew Gardner; 2. 24 months is unreasonable time period given the current economic climate - should extend time period to 4 years (48 months) and allow PO to request an additional 12 months if property is not leased by then; there will be huge loss of revenue to Tukwila; should allow other uses to replace vacated uses for buildings that fall within buffer; 3. no scientific basis for buffer widths; 4. vegetation and landscaping requirements should be proportional to proposed development; 5. allow two properties to share public access requirements.	1. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. Twenty-four months is a common time frame to allow before requiring nonconforming structures to come into compliance; allowing twenty-four months to pass before requiring nonconforming uses to comply is more generous than current TMC provisions as well as the provisions of other jurisdictions' nonconforming use code; the proposed SMP language provides for an extension of time - see proposed revisions to nonconforming uses and structures; 3. Basis for determining buffer widths is described in Section 7 - function of buffers and needed width also discussed in Best Available Science Issue Paper on Watercourses, June, 2003 prepared for SAO update, which is applicable to the Green/Duwamish River; 4. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See staff proposed revisions to Section 9.10 to address this issue. 5. Section 11.2 G. encourages shared public access between developments.
1 3/16/09	Jeff Weber	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	James Campbell, The Realty Associates, Int. Airport Centers	Letter dated 3/16/09: 1. Opposes increase in shoreline buffers, which in many cases runs through existing buildings; 2. pre-existing uses language is ambiguous - have provided suggested language to clarify & permit a change of use within a pre-existing structure as long as use is permitted in underlying zone;	1. Proposed buffer widths are based on a variety of factors as discussed in Section 7; 2. Thank you for the proposed revisions. Staff has incorporated some into the staff proposed revisions to Section 14.6 for proposed revisions to pre-existing/nonconforming uses and structures section
2 4/20/09	Kiersten Jensen	Costco Wholesale Corporation	999 Lake Drive, Issaquah, WA 98027	Costco	1. Proposed buffer is too wide; 2. landscaping requirement remains overbroad, requiring removal of invasive species in the buffer area; 3. draft language on preexisting uses will preclude future modification or reasonable expansion by making the costs of such modification or expansions prohibitively expensive.	1. Proposed buffer widths are based on a variety of factors as discussed in Section 7 - the buffer width for areas behind the certified levee is necessary in part to provide room for laying back the levee to a more stable slope as well as provide ecological benefits; 2. See staff proposed revisions to Section 9.10, vegetation management and landscaping section to address this issue; 3. see staff proposed revisions to Section 14.6, pre-existing/nonconforming uses and structures section.

MATRIX B: Council SMP Working Matrix - Comment Summary

Exhibit #	Name	Organization	Address	Subject Site	Issues Raised	Staff Response
3 4/20/09	Molly Lawrence	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	Walton	1. Draft SMP does not comply with applicable legal requirements and does not adequately protect the interests of property owners with existing developments; 2. concerned about 125 ft. buffer and 3. nonconforming use and structure provisions may prevent continued use and operation of their buildings if the larger buffer is approved. Regarding the legal basis for the proposed buffers, this is predicated on reconstruction of the levees, which if it occurs will take place at some undetermined future date, is not directly related to future development on Walton's property and violate RCW 82.02.020 and Walton's right to substantive due process. RCW 82.02.020 precludes the City from applying uniform buffers which are not directly related to the impacts of development (Citizens Alliance v. Ron Sims)	1. Staff has worked with City Attorney to balance legal requirements of SMA with private property rights; 2. proposed buffer widths are based on a variety of factors as discussed in Section 7; 3. see staff proposed revisions to Section 14.6 pre-existing/nonconforming uses and structures section.
4 4/20/09	John Storm	Harnish Group/NC Machinery	17035 W Valley Hwy, Tukwila 98188	16711 to 17035 W Valley Hy	1. Buffer can be reduced further from the current 100 feet for non-leveed river bank; 2. believe Bellevue language described in 1/15/09 letter should be used for non-conforming uses and structures; 3. different shoreline designation should be used - High Intensity Environment better describes their property than Urban Conservancy.	1. Disagree that 100 ft. buffer should be reduced prior to reconstruction of river bank to 2.5:1 slope with 20 foot buffer at top of reconstructed slope; 2. see staff proposed revisions to Section 14.6, pre-existing/nonconforming uses and structures section; 3. the High Intensity shoreline environment designation under Ecology guideline is meant for shorelines with water dependent uses.
5 4/20/09	Jeff Weber	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	James Campbell, The Realty Associates, Int. Airport Centers	1. Letter dated 4/20/09 plus testimony: Changes needed to Section 14.6 regarding preexisting uses and structures; 2. SMP is legally defective - proposed buffers violate property owners' constitutional rights; uniform buffers not reasonably necessary and not needed to achieve no net loss and violate RCW 82.02.020.	1. See staff proposed revisions to Section 14.6, pre-existing/nonconforming uses and structures section; 2. staff is working with City Attorney on legal issues
6 4/20/09	Chuck Maduell	Davis, Wright Tremaine	1201 Third Ave., #2200, Seattle, WA 98101-3045	Residence Inn by Marriott, (Innkeepers, USA) 16201 West Valley Hwy	1. Increase in buffer to 100 feet cuts through middle of existing hotel development causing improvements and uses to become nonconforming - SMP does not provide practical relief for this situation. A 50-foot buffer is more practical - not reasonable to require property owners to reconfigure river bank and re-vegetate in order to obtain a buffer reduction; 2. vegetation and landscaping requirements imposed are not proportional to the impacts of proposed development and violates RCW 82.02.020; 3. nonconforming section should be amended to allow a change of use from one nonconforming use to another for a structure wholly or partially within the shoreline buffer; 4. requirements for public access should be roughly proportional to impacts of development.	1. We recognize that the increase in proposed buffer widths creates some nonconforming uses and structures. Proposed revisions to Section 14.6 address some of these concerns; 2. Proposed landscaping of the buffer and removal of invasive species requirements in SMP is very similar to existing requirements for reconstructed riverbanks in current SMP (TMC 18.44) and in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See proposed revisions to Section 9.10 to address this issue. 3. See proposed revisions to Section 14.6 to address change of use; 4. One of the major triggers for public access is whether a project would increase demand for public access.

MATRIX B: Council SMP Working Matrix - Comment Summary

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7 4/20/09	Chuck Maduell	Davis, Wright Tremaine	1201 Third Ave., #2200, Seattle, WA 98101-3045	Yellow Transportation, 12855 48th Ave. S.	1. No demonstrated need for increasing buffer width or relief provided - process such as provided in TMC 18.45.100 F for a buffer reduction request should be included in the SMP; 2. vegetation and landscaping requirements are not proportional to the impacts of proposed development and violates RCW 82.02.020; 3. nonconforming section should be amended to allow a change of use from one nonconforming use to another for a structure wholly or partially within the shoreline buffer; 4. requirements for public access should be roughly proportional to impacts of development.	1. Section 7 of SMP provides discussion on how buffer width was determined - TMC 18.45, SAO requires mitigation implementation if a buffer width is reduced. 2. See proposed revisions to Section 9.10 to address this issue; 3. See proposed revisions to Section 14.6 to address this issue; 4. One of the major triggers for public access is whether a project would increase demand for public access.
8 4/20/09	Chuck Maduell	Davis, Wright Tremaine	1201 Third Ave., #2200, Seattle, WA 98101-3045	Desmine Trust	1. Proposed buffer is too wide, causing current uses and improvements on many of the Trust properties to become nonconforming and making it difficult if not impossible to redevelop; 2. height limitation is onerous and not warranted on the urbanized, highly industrialized development along the river; 3. vegetation and landscaping requirements remain overbroad and violate RCW 82.02.020; 4. nonconforming section should be amended to allow a change of use from one nonconforming use to another for a structure wholly or partially within the shoreline buffer - for properties that have leased tenants, current draft should be amended with language proposed earlier; requirements for public access should be roughly proportional to impacts of development.	1. Section 7 provides discussion on how buffer widths were developed - see staff proposed revisions to Section 14.6 preexisting/nonconforming uses and structures provisions of SMP; 2. current SMP limits height of structures in first 40 feet of shoreline jurisdiction to 35 feet - proposed SMP provides incentives to obtain increase in height; 3. landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance and existing SMP. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See proposed revisions to Section 9.10 to address this issue. 4. See proposed revisions to Section 14.6 to address the issue of change of use.
9 4/20/09	Chuck Maduell	Davis, Wright Tremaine	1201 Third Ave, #2200 Seattle, WA 98101-3045	Innkeepers USA/Residence Inn by Marriott	Submitted aerial photo illustrating approximate location of proposed new buffer on property.	Submittal acknowledged.
10 4/20/09	Joseph Desimone	Desimone Trust	5609 SW Manning St, Seattle 98116	Desimone Trust	Provided aerial photo of Barnaby's site with proposed buffer showing most of building is located in buffer area; map provided of AirPro site showing most of the site located in the proposed new buffer;	Both sites are unique in that each property is small and falls completely within shoreline jurisdiction; shoreline variance process, which serves as the reasonable use safety valve, provides mechanism to allow redevelopment of the sites.
11 4/20/09	Greg Haffner	Curran Law Firm,	P.O. Box 140, Kent, WA 98035-0140	Strander Family properties	1. Proposed new buffer would include approximately one-third of their property on S. 48th St. - because trail intervenes between their property line and the river they do not own or control the river bank which would need to be resloped in order to obtain a buffer reduction; propose language to address this problem; 2. concern about pre-existing use provisions in Section 14.6 - propose language to address this concern; 3. no economic impact analysis has been prepared which is contrary to the Economic Development section of the City's Comprehensive Plan.	1. City would be open to working with adjacent property owner for riverbank improvements; 2. see staff proposed revisions to Section 14.6, preexisting/nonconforming uses and structures provisions of SMP; 3. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document.

MATRIX B: Council SMP Working Matrix - Comment Summary

Exhibit #	Name	Organization	Address	Subject Site	Issues Raised	Staff Response
12 4/20/09	Courtney Kaylor	McCullough Hill, PS	701 Fifth Ave., Suite 7220, Seattle, WA 98104	La Pianta	1. Major concerns are the buffer width, 2. height restrictions in the shoreline jurisdiction and 3. the vegetation and landscaping requirements. Submitted assessed value information for properties in the shoreline totalling over \$39 million dollars; also submitted COE document on the Design and Construction of Levees	1. Section 7 provides discussion on how buffer widths were developed; 2. current SMP limits height of structures in shoreline buffer to 35 feet - incentives are provided in SMP to obtain height increases; 3. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See staff proposed revisions to Section 9.10 to address this issue. 4. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document.
13 4/20/09	Lara Fowler	Gordon Thomas Honeywell, LLP	600 University Ave., Suite 2100, Seattle, WA 98101-4185	Baker Commodities	1. Referenced litigation with City about use, development and redevelopment of Baker Commodities site - settlement reached in 1996; 2. remain concerned about the increased buffer width which may impair their ability to use buildings that will fall within the new buffer and decreases the value of the property; 3. also concerned about the potential for triggering vegetation requirements and that any amount of redevelopment or new construction would require all 2,200 linear feet of its shoreline to be cleared of invasive plants and re-vegetated.	1. Planning Commission revised draft SMP to recognize previous litigation however reference to the zoning code is problematic; 2. two buildings on site are nonconforming as to the current 50-foot buffer - proposed increased buffer will increase the nonconformity of these buildings; see staff proposed revisions to Section 14.6, nonconforming uses and structures language; 3. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See staff proposed revisions to Section 9.10 to address this issue.
14 4/20/09	Jeff Weber	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	Campbell Properties	There is a conflict between the SMP and TMC 16.52 - provided suggested wording changes to resolve the inconsistency.	Staff concurs-see proposed revision to the Section 9.5 language.
15 (7/13/09)	John Wannamaker	GVA Kidder Mathews	12886 Interurban Ave. S, Tukwila, Wa 98168	Tukwila Shoreline Property owners group	1. City should have undertaken an economic impact analysis - SMP will have substantial negative impact on City, property values, revenue; two critical areas: 2. legal defects - buffers do not contain sufficient flexibility for reduction - look to Auburn for example of Ecology approved program; 3. impact of SMP on existing uses that are now in buffer and become nonconforming uses - 24 months insufficient time and requirement to replace existing use with same use too restrictive.	1. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. disagree that SMP does not provide sufficient flexibility on buffer widths - the character of Auburn's shoreline is very different from Tukwila's so not appropriate to compare the provisions of their SMP program to Tukwila's; 3. see staff proposed revisions to Section 14.6, nonconforming uses and structures section of SMP.

MATRIX B: Council SMP Working Matrix - Comment Summary

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16 (7/13/09)	Richard Desimone			Number of family properties	1. Have paid taxes that support Tukwila for many generations - don't mind as we get good roads, fire protection and police service - not in this for the quick dollar, in it for a reasonable rate of return on our investment in a community that we believe has benefited from our involvement, ownership and business development over the years. Sometimes have to make choices between good environmental stewardship and economic growth - problem is SMP doesn't do this. 2. Concern he wants to address is 24 month time limit on re-letting space vacated by a nonconforming use in buffer - 24 month time period unreasonable with no basis in fact - according to Gardner study it can take up to 6 years to replace a tenant; other aspect of concern is the restriction on the type of uses that can replace a vacated use - this is too restrictive - property owners won't be able to find new tenants with the exact same use.	1. SMP tries to balance private property rights and the requirements of the SMA; 2. See staff proposed revisions to pre-existing/nonconforming uses and structure provisions of SMP. These proposed revisions do not broaden the initial amount of time for either nonconforming uses or structures but provide criteria for approval of time extensions as well as change of nonconforming use.
17 (7/13/09)	Jeff Weber	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	Campbell Properties, Walton Properties	1. Have commented extensively previously; both clients have properties behind levees - if there is a problem with the levees, then the whole valley should share the burden not just the property owner behind it; 2. issue of pre-existing uses - have submitted language to address this issue; 3. issue of new FEMA maps, SMP prohibits development in the floodway, which conflicts with City's flood plain ordinance. 4. Gardner Report makes three key points on economic impact of the SMP: a. proposed buffer will negatively impact the value of the affected real estate; b. proposed buffer will have direct, negative impact on the City through a reduction in the revenues derived from property taxes; and c. proposed buffer will negatively impact City through potential reduction in local employment and revenues generated for city from sales taxes and other indirect and induced revenue streams.	1. Property owners are welcome to advance the idea of a Local Improvement District (LID) for all properties protected by the levees. 2. See proposed revisions to Section 14.6 nonconforming uses & structures; 3. Staff agrees with suggested correction to language in Section 9.5. 4. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document.
18 (7/13/09)	Diane Summerhays	Southwest King County Chamber of Commerce	14220 Interurban Avenue S., #134, Tukwila, WA 98168/P.O. Box 58591, Seattle, WA 98138	Businesses along shoreline	1. Members of the Chamber committed to future economic health of the City; 2. concerns about proposed river buffers, 3. restrictions on re-leasing of vacant space within buffer within time period proposed in SMP; 4. potential economic burden of vegetation requirements; 5. recommend City form a formal "stakeholders" group to provide a forum for genuine dialogue with the community to find win/win solution to these issues.	1. comment acknowledged; 2. Section 7 provides discussion on how buffer widths were developed; 3. see staff proposed revisions to Section 14.6, preexisting/nonconforming uses and structures provisions of SMP; 4. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements - see revisions to Section 9.10. 5. Stakeholder group will not be established at this point.

MATRIX B: Council SMP Working Matrix - Comment Summary

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19 (7/13/09)	Shaunta Hyde	The Boeing Company	P.O. box 3707, Seattle, WA 98124-2207	Boeing properties	Provided written testimony during Planning Commission review in 2008 and have met with staff on the SMP, staff has reached out many times since; have also attended the public open houses. Have reviewed the environmental designations, land use regulations and development standards and have no current concerns with the language or understanding of how these standards are to be impelmented. Plan is well thought out and all encompassing document that provides a bit of flexibility. Policies support individual corporations' restoration work, habitat improvements and sound environmental stewardship creating a strategic approach along the river and turning basin.	Thank you for your comments.
20 (7/13/09)	Lara Fowler	Gordon Thomas Honeywell, LLP	600 University Ave., Suite 2100, Seattle, WA 98101-4185	Baker Commodities	Submitted comments at 4/20/09 hearing; 1. Baker Commodities is among the property owners who participated in the preparation of the Gardner Economic report and supports its conclusions on the potential economic impacts of the SMP on property owners and the City; three key areas of concern: 2. draft SMP must meet exisiting legal agreements with Baker Commodities; 3. due to shape of their property, proposed increase in buffer widths greatly impacts potential future uses of their property - approximately 20% of the 11.87 acres would be affected; 4. if any activity triggers the vegetation requirements as proposed, there would be potentially disproportionate impact to their property given the approximately 2,200 linear feet of shoreline owned by Baker Commodities.	1. Gardner Economic Report is baed on PC Recommended Draft SMP - Council is considering substantial changes to this document; 2. Comment noted. 3. Buffer width of 100 ft. in this area is proposed in order to allow room for more natural slope to be established - the SMP provides option for reducing the buffer width; 4. see staff proposed revisions to Section 9.10 regarding landscaping and vegetation.

MATRIX B: Council SMP Working Matrix - Comment Summary

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21 (7/13/09)	Robert Thorpe, Lee Michaelis	R.W. Thorpe & Associates	705 Second Avenue, #710, Seattle, WA 98104	Desimone Trust properties	<p>Took two of the Trust properties, Airpro in Duwamish River industrial area and former Barnaby's restaurant in the TUC to look at impacts of the draft SMP & recommend the following: 1. consider allowing reduction in buffer without resloping of river bank by providing public access as permitted by current King County shoreline regulations or by enhancing the remaining buffer and improving the functions and values of the River Buffer; 2. allow any use permitted in underlying zone to fill vacated buildings rather than limit to use like vacated use; 3. allow the consolidation of nonconforming structures into one structure in event buildings are destroyed by accidental means with provision that rebuilt structure be located in approximately the same location as the furthest building from the OHWM that was destroyed; 4. City hasn't justified need for proposed vegetation and landscaping regulations or proportion of redevelopment and amount of mitigation for that development - amount of vegetation/landscaping should be proportional to the amount of development proposed;</p> <p>5. requiring all property owners to provide public access exceeds the intent of the SMA - see WAC 173-26-221(4)(c) - Tukwila should complete a comprehensive public access plan to determine need for public access and identify areas that are deficient in providing public access; 6. height restrictions onerous given constraints on property with proposed new buffer widths; 7. vacancy or abandonment period for pre-existing development should be extended to 48 months with option for Council extension of 12 months.</p>	<p>1. Allowing buffer reduction without the riverbank resloping could result in uses or structures being located in an area needed for resloping the bank; 2. See staff proposed changes to Section 14.6, nonconforming uses/structures section; 3. This option was proposed during the Planning Commission review of the SMP - it was determined that allowing this option would allow to much of an expansion of nonconforming structures; 4. Landscaping of the buffer and removal of invasive species is very similar to existing requirements in the Sensitive Areas Ordinance. Property owners with river frontage should take some responsibility for stewardship of the river. It was not staff intent to require full landscaping for minor improvements. See staff proposed revisions to Section 9.10 to address proportionality issue. 5. The SMP establishes criteria for when public access is required. A public access map identifies proposed new trails as well as existing trails and other public access points - the City also has adopted a Parks, Recreation and Open Space Plan and a Walk and Roll Plan, both of which address</p> <p>6. the SMP provides incentives to obtain increases in height within the Shoreline jurisdiction; 7. See staff proposed criteria for requesting time extension period changes to nonconforming use/structure - these proposed revisions do not broaden the initial amount of time for either nonconforming uses or structures but provide criteria for approval of time extensions.</p>
22 (7/13/09)	Jack McCullough	McCullough Hill, PS	701 fifth Avenue, #7220, Seattle, WA 98104	La Pianta	<p>1. Provided six cross sections prepared by Goldsmith Land Development Services showing existing and proposed levee conditions in vicinity of Tukwila South in comparison to City's current and proposed SMP regulations; 2. La Pianta provided comments at the April 20, 2009 public hearing; 3. issue of trail width on top of levee. How will the "no man's land" between the outward toe of the levee and the landward end of the buffer be treated? Suggested that the buffer end at the landward toe of the levee if it meets the COE approved profile. Is ok with 18' trail for new levee only, no widening on existing levee. 4. There are no views to protect so the height language serves no purpose, only constrains development. Will propose language by the end of the month.</p>	<p>1. Receipt of cross sections acknowledged; 2. See #12 above for response to 4/20/09 submittal; 3. Proposed trail width is consistent with City adopted trail standards. Revisions proposed in Section 7 to address fill behind levee; 4. Incentives for increase in height provided in SMP.</p>
23 (7/20/09)	Don Scanlon		13410 40th Ave. S. Tukwila, WA 98168	city-wide properties	<p>Has read the posted comments on the draft SMP - there is a larger picture here - Tukwila is part of a larger group of jurisdictions working to restore salmon habitat through the WRIA 9 process - river needs to be wider to allow shallow water habitat the young salmon need. Tukwila should develop a SMP that accommodates the restoration process and not have a plan forced on the City.</p>	<p>Thank you for your comments. One of the goals of the SMP buffers is to provide additional width to the river channel by laying back the levees with a 2.5:1 slope and vegetated bench or laying back oversteepened banks on non-leveed banks, which will allow additional flood storage capacity.</p>

MATRIX B: Council SMP Working Matrix - Comment Summary

Exhibit #	Name	Organization	Address	Subject Site	Issues Raised	Staff Response
24 (7/20/09)	Jeff Weber	Gordon Derr	2025 First Avenue, Suite 500, Seattle, WA 98121-3140	Campbell Property, Walton CWWA Tukwila LLC	City Attorney's comments at 7/7/09 work session on preferred levee profile required by NMFS Biological Opinion incorrect and that FEMA would not certify levees unless sufficient vegetation is planted, which can only be accomplished through incorporation of a mid-slope bench is incorrect as well - review of BiOp does not support these contentions. Reasonable and Prudent Alternative #5 regarding levee vegetation does not foreclose the possibility of satisfactory alternative to the City's preferred levee profile. Submitted aerial photo of Walton property, 9/22/08 NOAA letter to FEMA and Biological Opinion, 5/14/09 NMFS letter to FEMA, 4/24/09 letter from FEMA to NMFS, existing FIRM for Campbell property, Plate LG-4, Draft Flood Boundary Work Map prepared by Northwest Hydraulic Consultants 3/18/08.	Comment acknowledged.
25 (7/20/09)	Louie Sanft		6120 52nd Ave. S., Seattle, WA 98118	Al and Ruth Sanft and Louie Sanft properties	Submitted a copy of his 11/3/08 comments on SMP to Mayor and Council members. DCD is attempting to pass an update SMP quickly without any input from residents, businesses, property owners or other constituents residing in Tukwila. Major concerns: 1. draft SMP doesn't take into account the effect of the SMP on residents and businesses within the shoreline area including the economic impact; the community is being excluded from helping design the SMP. 2. Community members have not had enough time to review the SMP and determine full impact it may have on them. Requests PC to slow down process and include the community in the planning, design and implementation of a new SMP. Attached copy of nine issues identified with the SMP: 3. SMP treats all properties the same; 4. increased setback is too much; 5. nonconforming properties that currently conform to regulations; 6. lack of public participation in drafting SMP; 7. landscape requirements; 8. public access requirements; 9. economic impact of SMP; 10. compensation for property owners; 11. legal cost of defending City against legal challenges that will be filed against SMP.	1. SMP tries to balance private property rights and the requirements of the SMA; 2. The City has been reviewing the proposed SMP for over a year, with multiple opportunities for formal public input at public hearings as well as opportunities to meet with staff to discuss issues; 3. SMP Inventory and Characterization Report analyzes properties along the shoreline - properties have been organized by shoreline environment type as a way to apply regulations; 4. Section 7 discusses how proposed shoreline buffers were determined; 5. See staff proposed revisions to Section 14.6, pre-existing/nonconforming uses and structure provisions of SMP. 6. See #2; 7. See staff proposed revisions to Section 9.10 to address some concerns raised on vegetation and landscaping; 8. Public access section was revised extensively during PC review of SMP; 9. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 10. compensation is provided to property owners if a court rules there has been a taking; 11. staff is working with the City Attorney to address legal issues.
CM Robertson (7/6 & 7/13/09)					Section 7.2: last bullet on page 50 and bullet at top of page 51 need language added to reflect the importance of the Transition Zone (TZ).	Agree, staff has proposed language for Council review. See revised Section 7.2.
CM Robertson (7/6 & 7/13/09)					Table 3, page 54, under "Modification", update to use "City Profile" where appropriate, revise terminology related to maximum slope (should be "not to be steeper than") and "adverse impacts to river" - this should be broader to include shoreline functions, not just river.	Agree, staff has incorporated changes. See Section 7.4, revised Table 3.

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CM Robertson (7/6 & 7/13/09)					Section 7.5 A., page 57: this entire section needs to be re-written as a definition of the City Profile;" need to add a reference to the human safety aspects of the buffers - no mention of this issue; last paragraph, next to last sentence rather than refer to natural slopes, should characterize them as "less steep".	Agree, staff has incorporated changes. See revised Section 7.5
CM Robertson (7/6 & 7/13/09)					Section 7.5 A, page 58, first paragraph, needs to be expanded to include the new FEMA standards and information.	Agree, staff has incorporated changes. See revised Section 7.5
CM Robertson (7/6 & 7/13/09)					Section 7.5 B., page 60: include information about the cost of repairs to the levees over the years.	Agree, staff has incorporated changes. See revised Section 7.5
CM Robertson (7/6 & 7/13/09)					Section 7.5 B, page 61: reference to Appendix D - net Loss Analysis where is this? Needs to be included in the document	See the Net Loss Analysis provided in the 10/27/09 Council packet. The reference to the Net Loss table in the text is proposed to be removed by staff, as it does not fit well in this section. The Net Loss Analysis is being revised and expanded to become part of the revised Cumulative Impacts Assessment, which will be provided to Council when the adopting ordinance is presented.
CM Robertson (7/6 & 7/13/09)					Section 7.6 C., page 65, last paragraph on the page: are we saying that outside of 50' the slope is stable? Suggest adding "or greater" at the end of the last sentence.	Agree - see proposed revisions to Section 7.6 C.
CM Robertson (7/6 & 7/13/09)					Section 7.7C, page 64: sentence that says "The buffer width is the maximum needed to reconfigure the river bank to achieve an overall slope of 2.5:1" - should the sentence use the word "minimum" instead of "maximum?"	No, it is not expected that any more than 125 ft will be necessary to accommodate levee replacement with the preferred profile.
CM Robertson (7/6 & 7/13/09)					Section 7.6 B, page 62: language in last sentence of last paragraph is confusing, considere deleting the sentence.	Agree, change made in revised Section 7.6.C.
CM Robertson (7/6 & 7/13/09)					Section 7.7.C. Page 67, "Buffer in Levee Areas" - Add "with the mid-slope bench" to the last sentence in the paragraph for clarification	Agree, see change made in Section 7.7C.
CM Robertson (7/6 & 7/13/09)					Section 7.7 C., page 67: last paragraph, which is struck through - the second, third and fourth sentences should be added back into the text: "During high flow events, the water surface can be as much as 16 feet above ordinary high water. At locations further down river, the water surface elevation difference is much less pronounced due to the wider channel width and proximity to Puget Sound. For example at the Tukwila International Blvd. bridge, this difference is approximately four feet."	Staff agrees, change made in SMP. Verbiage incorporated into Section 7.5.B, where the rationale for buffer widths in leveed areas is presented.
CM Robertson (7/6 & 7/13/09)					Figure 4, page 68 should show a mid-slope bench as this illustration is of the leveed portion of the river. Paragraph above this figure doesn't mention vegetation requirements & maybe it should.	Staff agrees, change made in SMP. See revised Section 7.7, Figure 4.

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CM Robertson (7/6 & 7/13/09)					Section 7.8 A, page 68, last sentence in first paragraph: suggest specifying what the minimum protective buffer will be. Also there should be a discussion about water dependent uses in this section.	Staff agrees, change made in SMP. See revised Section 7
CM Robertson (7/6 & 7/13/09)					Section 7.8 A., page 69, paragraph at top of page, when describing the Transition Zone, should use the word "critically" instead of particularly (third line) and extremely (sixth line).	Staff agrees, change made in SMP. See revised Section 7
CM Robertson (7/6 & 7/13/09)					Section 7.8 B, page 69, need to add another bullet to establish a different definition for no net loss in the Transition Zone	Staff believes the current No Net Loss definition addresses both Transition and non-Transition Zone areas. Other revisions in Section 7 have placed greater emphasis on improvements in the TZ given its critical role for salmon habitat recovery.
CM Robertson (7/6 & 7/13/09)					Secton 7. 7, page 65, Figure 4 should show a bench.	Staff agrees, change made in SMP. See revised Section 7.7, Figure 4.
CM Robertson (7/6 & 7/13/09)					Restoration Plan comments: page 13, add bullet to identify Transition Zone as high priority for restoration sites.	Staff agrees. Bullet has been added to Restoration Plan. See Revised Restoration Plan.
CM Linder (7/13/09)					Have any other cities had their SMP approved or preapproved? If so, do these jurisdictions have a 2.5:1 ratio? If they don't what slope ratio do they have and why?	Addressed in Jim Morrow's 7/14/09 memo on SMP public comments. Kent has a similar levee profile except with two benches.
CM Linder (7/13/09)					What are the implications if the City does not participate in the flood insurance program for property owners?	Jim Morrow provided a memo on this topic as part of the 8/11/09 packet.
CM Linder (7/7/09)					Requested a memo summarizing the three themes identified by Public Works Director Morrow from the public testimony on the buffer widths and levees.	Addressed by Jim Morrow's 7/14/09 memo on SMP public comments.
CM Linder (7/7/09)					Please provide a chronology of public comments and/or opportunities for input on the SMP.	Provided in 8/11/09 work session packet.
CM Linder (7/7/09)					Please provide a memo summarizing the comments from City Attorney Bob Sterbank	Bob Sterbank will address legal issues related to buffers in an Executive Session.
CM Robertson (7/6 & 7/13/09)					What is the relationship between the policies in Restoration Plan on page 19 and those in the draft SMP?	Policies in Restoration Plan should have been consistent with those in the SMP document. Staff has revised this part of the Restoration Plan to be consistent with Section 6 of the SMP. See Revised Restoration Plan.
CM Quinn (7/13/09)					Looking for incentives to achieve SMP goals: what about a transfer of development rights program, or property tax exemption or using floor area ratio?	Tukwila's zoning code is very permissive - the suggested techniques, such as TDR do not lend themselves well here as incentives for compliance with SMP provisions.
CM Griffin (7/15/09)					What happens if the City does not submit an adopted SMP by the deadline? Are there financial penalties?	Ecology looks to see why the SMP hasn't been adopted by the deadline and whether the City is continuing to make progress towards adoption. There are currently no financial penalties for not adopting on time.

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CM Linder (7/14/09)					Please provide a decision tree that identifies how the biological opinion impacted FEMA and the COE in their respective areas (flood insurance program and levees).	We have asked for clarification from National Marine Fisheries Service on how the suggested buffers in the Biological Opinion apply in urbanized areas - currently local jurisdictions are trying to reconcile the conflicting direction from federal agencies with competing missions (i.e. FEMA, NMFS, COE) and competing standards.
CM Linder (7/13/09)					Questions from 7/13/09 public hearing: 1. why can't we use the language Jeff Weber has provided? 2. SMP inconsistent with TMC 16.52; 3. Why can't we use the approach suggested by Costco on levee layback? 4. Economic study - response? 5. Appoint another stakeholder group? 6. What happens if we opt not to protect the floodway? 7. Was the buffer width created to accommodate the need for 2.5:1 slope?	1. Submitted language relates to nonconforming use/structures - see staff proposed language changes to Section 14.6 on this issue. 2. Staff is currently working on an update to the floodplain management ordinance, see Morrow 7/14/09 memo. 3. Because in the interim between engineering the distance needed to meet the profile and construction of the new levee, erosion may move the location of the OHWM so that the 2.5:1 slope cannot be achieved, see Morrow 7/14/09 memo. 4. Gardner Economic Report is based on PC Recommended Draft SMP - Council is considering substantial changes to this document; 5. Decision was made not to appoint another stakeholder group in October 2008. 6. See Morrow memo dated 8/5/09. 7. Slope stability was one of the factors in determining the buffer widths, see 9/9/08 memo as well as Section 7 for discussion of rationale for buffer widths.
Council Request (7/14/09)					Need information on the following for the buffer discussion: 1. criteria for the 50, 100, and 125 foot buffers; 2. COE standard for levees; 3. how are other cities along the river approaching buffers and levee profile? 4. Provide engineering study; 5. what if the City reduces the buffer to less than what is proposed? 6. Want profile of Kent's levee cross section (with two benches) and Tukwila's; 7. Need map of Transition Zone location;	See materials provided in 7/28/09 work session packet.
CM Hougardy (8/11/09)					Please clarify what vegetation requirements apply to property owners that are protected by levees.	Staff agrees and has added language to the SMP clarifying that on properties behind levees, re-vegetating and vegetation maintenance on the levees are not the responsibility of the property owner. Landscaping on landward portions of property within the 200 ft Shoreline Jurisdiction will still be the property owner's responsibility per 9.10.C. See Revised Section 9.10.C.
CM Robertson (8/11/09)					How will the City ensure that newly rebuilt sections of levee won't become covered by blackberries and other invasive plants?	Per the agreement between the City and King County, levee vegetation will be maintained by the County. Levees with grass slopes above the mid-slope benches will be periodically mowed, which should help maintain grass cover and keep down blackberry establishment.
CM Robertson (8/11/09)					Under Section 9.10.B.5, add a statement that in the event on-site tree replacement is not feasible, priority for off-site planting shall be in the Transition Zone.	Staff agrees, change made in SMP. See revised Section 9.10.

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CM Hourardy (10/8/09)					Provide additional information about no net loss.	See Appendix D, also requested by Councilmember Robertson; see also information from Dept of Ecology on what is meant by no net loss, attached to Section 3, Definitions Section.
Dept of Ecology 6/30/09					<p>General Issues: 1. maps - incorporate maps into document; 2. buffers - undefined buffer width is a concern when buffer reductions are approved; 3. archaeological resources - need to include language that requires development to stop if archaeological resources are discovered and to require site inspection or evaluation when archaeological resources are on-site; 4. SMA uses the term "unclassified use" in a different context from Tukwila's zoning code approach - need to resolve the conflicts between the two; 5. where possible, references to other portions of zoning code should be removed from SMP as this will require Ecology to review and approve zoning code sections; 6. a use matrix must be included in the SMP; 7. the SMP needs to include a public access plan - can be a "gap analysis;" 8. Restoration Section needs to be revised to reflect passage of HB 2199;</p> <p>9. South annexation agreement must be reviewed against SMP to ensure consistency; 10. SMP must include discussion on new FEMA maps, NMFS Biological Opinion, how shoreline jurisdiction addresses the new floodway areas, and flood hazard reduction; 11. Section 10 of SMP should use Ecology wetland rating system.</p>	<p>1. The maps will be updated to include the south annexation area and incorporated into the SMP. 2. Staff explained that any buffer reduction would result in a known profile with revegetation. 3. See revised Section 9.7. 4. We will revise this section. 5. We will strike this language. 6. We will separate the zoning and shoreline categories to simplify this. 7. The City has several documents that serve to identify public access points along the river; the Cumulative Impacts Analysis will briefly address demand for public access. 8. Staff is proposing revisions to Section 13 to address passage of HB 2199. 9. The Developer's Agreement for the Tukwila South Annexation area defers to the SMP for shoreline regulations. 10. Text will be added related to the new FEMA maps and the Biological Opinion.</p>
Dept of Ecology 6/30/09				Detailed Comments	Elements of the Tukwila South Development Plan or the Tukwila Urban Center Plan that relate to shoreline development (as discussed in Policy 5.5.1 on page 41 for example) need to be included or incorporated into the SMP and reviewed by Ecology	La Pianta has met with staff to address coordination with the Development Agreement. The Southcenter Plan and Developer's Agreement defer to the SMP for areas within the shoreline jurisdiction.
Dept of Ecology 6/30/09					Pages 54 and 55: are vegetation enhancement requirements adequate and consistent with USACOE requirements? It may be helpful to clearly identify the USACOE maintained levees in the SMP.	The COE has approved the Briscoe profile and that is Tukwila's preferred template for improvements.
Dept of Ecology 6/30/09					Page 55 bottom row, page 56 send of second row: what is meant by last phrase "Director may reduce the buffer to the actual width required." It is unclear what buffers will actually result from this provision.	Explained the profiles required to be constructed to obtain the reduction.
Dept of Ecology 6/30/09					Pages 56, last row and 70, last sentence - where the buffer stops at an existing road or street, the cumulative impact analysis (CIA) will need to identify and analyze actual buffer widths resulting from ending the buffer on river side of existing improved stret or roadway.	We will identify the locations where this would occur in the CIA. Because the roads are existing there is no current buffer function and therefore no net loss.
Dept of Ecology 6/30/09					The Shoreline Residential Use regulations in Chapter 8 needs to address lot coverage and shoreline stabilization for each of the applicable shoreline environments, Shoreline Residential, Urban Conservancy, and High Intensity.	Residential regulations only apply within the Shoreline Residential Environment; underlying zoning has lot coverage maximum

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Dept of Ecology 6/30/09					Page 65, 1st paragraph, first sentence: is this a reference to all non-residentially zoned areas or areas with nonresidential uses?	Areas with nonresidential uses (Foster Golf Course and Fort Dent Park are zoned LDR, with a recreation overlay, but are located in the Urban Conservancy Environment).
Dept of Ecology 6/30/09					Page 72-73; uses allowed in buffer: the revised cumulative impact analysis should address the aggregate of uses allowed in the buffer. The buffer use provision in section 8.2 could allow for a notable portion of the vegetation in the buffer to be removed.	We have discussed with Ecology staff the budget limitations on extensive revisions to the Cumulative Impacts Analysis. The Impact Analysis was submitted to Ecology for review earlier in the process and the City did not receive major comments on the document at that time, so grant budget was spent on other tasks.
Dept of Ecology 6/30/09					Pages 72, 75 and 77: signs should only be allowed in a buffer if they serve a conservation use of an approved existing use in the buffer.	The signs that would be located in the buffer will typically be related to the Trail and other public recreation facilities located in the buffer. During our sign code update we will look at limiting signs to those accessory to a permitted buffer use.
Dept of Ecology 6/30/09					Pages 75 and 77 make reference to Tukwila Municipal Code (TMC) 18.62. Water dependent industrial or commercial development must be regulated in the SMP rather than the underlying zoning.	Use chart will identify general uses that are permitted in the shoreline environments.
Dept of Ecology 6/30/09					Pages 75 and 77: built facilities in subsection P should be located outside of the buffer unless a buffer location is necessary for the specific function of the facility.	That is the intent of this subsection.
Dept of Ecology 6/30/09					Pages 79 and 81: while development standards of the underlying zoning district do apply to development within shoreline jurisdiction, they should only be incorporated into the SMP if they address shoreline issues such as shoreline uses and standards. All zoning standards incorporated into the SMP must be reviewed and approved by Ecology.	The SMP text will be revised to avoid underlying zoning references.
Dept of Ecology 6/30/09					Page 100, regulation 9.12 A.3: where feasible, deck covering that allows light to pass through shall be used.	We believe the text of Section 9.12 A. 3 and D. achieve this.
Dept of Ecology 6/30/09					Page 100, regulation 9.12 A.6: preservative used to treat piles should also be approved by the Washington Dept of Fish and Wildlife.	Agree - see proposed revisions to Section 10.
Dept of Ecology 6/30/09					Page 101, regulation 9.12.B.1: is the no net loss review intended to be site specific?	Yes.
Dept of Ecology 6/30/09					Page 119, section 10.11B: define Type II permit process within the SMP.	Type II permits are reviewed and approved by the Director of the Dept of Community Development. References to underlying zoning will be removed.
Dept of Ecology 6/30/09					Page 133, section 11.5: if greater than 35 feet, increased building heights may not block the view of a substantial number of residential uses. Increase building heights need to be analyzed in the cumulative impacts analysis.	Comment noted.
Dept of Ecology 6/30/09					Page 143, Section 14.1.A: minimum shoreline jurisdiction also includes all areas landward 200 feet from the flodway in greater than the area extending 200 feet from the OHWM.	Comment noted.

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Dept of Ecology 6/30/09					Page 143, Section 14.2.A: the shoreline substantial development permit criteria should be included in the SMP. Adopting approval criteria from the zoning code would require Ecology approval of the zoning approval criteria and that the adopted criteria are attached to the SMP. This is also true of page 144 and Section 14.3.B and page 147, Section 14.5.B.	Comments noted. References to the underlying zoning code will be removed.
Dept of Ecology 6/30/09					Page 148, Section 14.5.A makes reference to a zoning code definition. The definition of pre-existing use should be included in the SMP.	This definition is included in the Planning Commission Recommended Draft SMP, page 14.
Dept of Ecology 6/30/09					Page 150, Sections 14.6.B.7 and 7 need to be analyzed in the cumulative impact analysis. There is concern that allowing for construction of new residences within shoreline buffers will defeat the purpose of the buffers. Ecology would prefer that expansion of such single family residences require a shoreline conditional use permit and be excluded from sensitive areas and their buffers.	New residences are not permitted in the buffer - existing structures are permitted to be rebuilt.
Dept of Ecology 6/30/09					Page 150, Sections 14.6.B.5: allowing existing buildings in what would otherwise be buffers to be classified as conforming may defeat the purpose of the buffers. If the structures are not consistent with buffer requirements, then they should be nonconforming.	There will be additional discussion by the Council on the how far provisions for nonconforming uses and structures should go in the SMP. Given the developed character of the City's shoreline, there are many structures currently located in the proposed new buffer areas. A great deal of testimony has been received on the impact of the wider buffers on the owners of these existing structures.
Dept of Ecology 6/30/09					Page 150, Section 14.6.B.6: allowing expansion of nonconforming structures. Ecology supports making this a required shoreline conditional use permit for single family residences.	Comment noted. The language is consistent with the city-wide non-conforming regulations.
Dept of Ecology 6/30/09					Page 151, Section 14.6.C.1 and 2: these sections should contain language requiring the improvements causing expansion of nonconformity or pre-existing building be the minimum necessary expansion to meet the documented public safety concerns.	The SMP text will be revised to address this concern.
Dept of Ecology 6/30/09					Page 153, Section 16.2: in order to implement this section as proposed, TMC 8.45 must either be included in the SMP or adopted into the SMP and attached to the SMP. Ecology will need to be able to approve Chapter 8.45 as part of the SMP after review.	Comment noted.
Dept of Ecology 6/30/09					Page 155, Section 17: the referenced WAC section do not appear to be correct. The appropriate WAC references appear to be in WAC 173-26.	Citation will be corrected.
CM Robertson (8/11/09)					Pages 89, 90. Insert statements that priority for off-site tree replacement and LWD placement be in the Transition Zone.	See revised language in Section 9.10.B.5&6

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CM Robertson					Table 3. Page 52. remove details re: preferred Tukwila levee profile from table and include a description of the preferred profile elsewhere in the document in one place.	See revised Table 3.
CM Robertson					How does 14.6 B7 allowing the reconstruction of non-conforming structures meet the goals of the SMP?	This echoes the DOE concern that this provision would not move toward compliance with the SMP.
Staff proposed revision					COE will continue to require removal of trees and vegetation that do not comply with vegetation standards.	Section 9.10: require off-site tree replacement and placement of LWD when trees are removed from levee in meet COE standards. Priority area for placement would be Transition Zone
Staff proposed revision					Page 88. Clarify that vegetation management provisions apply to all environments, whether or not there is a proposed development	See revised language in 9.10.A.4.
Staff proposed revision					Page 88. Clarify that native vegetation in the buffer must be protected as well as trees in the shoreline jurisdiction	See revised language in 9.10.B.2. and 3
Staff proposed revision					Page 90. Reduce requirements for installing LWD on-site and clarify language.	See revised language in 9.10.B.6
Staff proposed revision					Page 92. Allow exception for requirement of licensed landscape architect or approved biologist for planting plans being done for single family residential property owners.	See revised language in 9.10.C.2
Staff proposed revision					Page 93. Clarify that planting from the OHWM will not be required if the bank steepness or instability is such that planting would not be safe.	See revised language in 9.10.C.2b
Staff proposed revision					Page 66. Correct Figure Number - should be Figure 4	See revised figure in Section 7.8
Staff proposed revision					Use of flood wall for properties with existing buildings that prevent the use of the preferred levee profile.	See proposed revision in Section 7.7 - this provides flexibility in situations where an existing building prevents the construction on the preferred levee profile backslope of the levee.
Staff proposed revision					Allowing property owners the option of substituting an easement for a portion of the buffer that falls behind the back slope of the levee.	See proposed revision in Section 7.7, which would permit more uses to be located in this area.
Staff proposed revision					Addressing the use of fill behind the backslope of the levee and implications for buffer reduction.	See proposed revision in Section 7.7 - which allows an additional bufer reduction as an incentive for property owners to fill behind the levee, avoiding a "moat" appearance.
Staff proposed revision					Add defintion for regional detention facility and add this use as one that is permitted in the shoreline buffer.	See proposed addition to Section 3, Definitions, and Section 8, Permitted Uses.

APPENDIX D

Tukwila SMP - Net Loss Analysis – Risks to Ecosystem Functions and Proposed Standards to Prevent Net Loss

Ecosystem Function¹	Risks (actions that would cause a net loss)	Methods in proposed SMP to prevent loss or minimize risk²	Opportunities provided for in SMP for restoration of functions
Hydrology – flow regime	None	Not in City’s control	N/A
Hydrology – Channel/Flood Plain Interaction	New hard shoreline armoring on over-steepened banks New overwater/in-water structures Loss of wetlands & fish and wildlife habitat areas	Standards controlling new hard armoring (Sect. 9.5, 9.6) Standards controlling extent and design of new over-water structures (Sec 9.12), mitigation required (Sect. 9.12) Sensitive areas provisions in SMP (Sect 10)	Set back levees and other banks to slightly increase flood plain width Mitigation projects to off-set or replace lost functions
Hydrology Groundwater Recharge	No significant risks	N/A	N/A
Sediment Delivery – fluvial transport	No significant risks for coarse sediment transport impairment	N/A- Process controlled and affected at watershed level upriver from Tukwila	N/A
Sediment Delivery – upland fine sediment generation	Land clearing, removal of vegetation along river, landslides from over-steepened banks Inadequate stormwater treatment to remove fine sediment	Standards prohibiting native vegetation removal (Sect 9.10). Standards for land clearing in SMP (Sect. 9.11), including erosion & sediment control for projects Vegetation (native) required (Sect 9.10) ³ Adequate stormwater treatment (Sect. 9.4) and adequate buffer width (Sect. 7)	Incentive built in for re-sloping and re-vegetating banks to provide greater stability at time of redevelopment
Water quality – particulate retention	Land clearing Increased impervious surface in buffer w/o possible retention by vegetation Inadequate stormwater treatment for removal of particulates	Standards prohibiting native vegetation removal (Sect 9.10). Standards for land clearing in SMP (Sect. 9.11), including erosion & sediment control for projects Vegetation (native) required (Sect. 9.10) Adequate stormwater treatment (Sect. 9.4) and adequate buffer width (Sect. 7) Restrictions on what structures can be built in buffer (Sect 8)	Vegetation enhancement at time of re-development as noted above
Water Quality – nutrient cycling	Further reduction of river/floodplain interface through hard armoring on over-steepened banks Removal of trees and native vegetation	Standards prohibiting new hard armoring, unless studies show no alternatives (in that case mitigation would be required) (Sect. 9.5, 9.6) Standards prohibiting native vegetation and tree removal (Sect 9.10).	Restoration projects Laying back banks Installation of native vegetation that overhangs banks
Water Quality - Temperature	Removal of large trees & vegetation that overhangs water (elimination of shading) Increase in impervious surfaces (stormwater temperatures)	Standards that prohibit tree removal with mitigation required (Sect 9.10) Standards controlling structures in buffer & requiring mitigation (Sect. 8, 9.2), prohibiting increase in runoff and requiring LID techniques (Sect 9.4)	Tree planting
Water Quality – contaminants	New impervious surfaces in buffer (i.e., no filtering out of contaminants) Untreated stormwater runoff Overwater structures (such as marinas or boat yards) with transport, use or storage of hazardous materials Use/storage of hazardous materials	Standards controlling structures in buffer & requiring mitigation (Sect. 8, 9.2), prohibiting increase in runoff and requiring LID techniques (Sect 9.4) Standards requiring stormwater treatment and use of low impact development techniques (Sect 9.4) Standards requiring spill prevention and contingency plans, prohibiting development within 100 ft of sensitive area (Sect 9.12) Standards that limit use of treated pilings (Sect 9.12). Prohibition of commercial hazardous waste facilities in shoreline jurisdiction (Sect. 8).	

¹ Ecosystem functions based on Shoreline Inventory and Characterization Report

² Analysis of potential environmental impacts, mitigation sequencing, and mitigation (Sect. 9.8 of SMP) apply to all projects in the Shoreline Jurisdiction

³ Removal of invasive vegetation and replacement with native vegetation is voluntary for development of 4 or fewer single family residences, except where bank stabilization is proposed. City will provide technical guidance to homeowners on removal and planting.

APPENDIX D

Ecosystem Function ¹	Risks (actions that would cause a net loss)	Methods in proposed SMP to prevent loss or minimize risk ²	Opportunities provided for in SMP for restoration of functions
	<p>Excessive use of pesticides</p> <p>Parking in buffer or parking in areas without adequate stormwater treatment (oil drips)</p>	<p>Standards controlling use of pesticides (Sect. 9.10.D), requirement for management plans for areas requiring large turf management adjacent to river (golf course, parks).</p> <p>Use standards for buffers (Sect. 8), stormwater treatment required (Sect. 9.4)</p>	
LWD/Organic inputs	Large tree removal	<p>Standards prohibiting native vegetation removal, tree removal and requirements for planting native vegetation (Sect 9.10).</p> <p>Mitigation requirements that include addition of LWD (Sect. 9.10)</p>	<p>Adding LWD as mitigation and as part of development projects</p> <p>Levee setback with mid-slope bench to allow tree planting</p>
<p>Riparian and in-stream habitat for fish and wildlife (especially for salmonids and bull trout).</p> <p>Freshwater/Saltwater Transition Zone with off-channel habitat</p>	<p>Large tree removal (elimination of shade, source of future large woody debris, perching and nesting locations for birds). Removal of native vegetation overhanging the river (shade, food supply, source of large woody debris)</p> <p>New hard shoreline armoring on over-steepened banks</p> <p>In/overwater structures with impacts on fish passage, shading, habitat disruption</p> <p>Filling of riparian wetland, off-channel habitat</p>	<p>Standards prohibiting native vegetation and tree removal (Sect 9.10).</p> <p>Standards controlling new hard armoring, (Sect. 9.6)</p> <p>Standards for in-water and overwater structures, requirement for special studies to show no net loss, mitigation requirements (Sect. 9.12)</p> <p>Prohibition of wetland filling, protection of Fish and Wildlife Habitat Conservation Areas (Sect. 10)</p>	<p>Restoration projects prioritized in transition zone esp. off-channel and near channel areas</p> <p>Laying back and vegetating river banks with native plants</p>



What Does No Net Loss Mean in the 2003 SMA Guidelines? (June 2004)

And How is it Meant to be Implemented?

Within the guidelines the Shoreline Management Act's policy on protection of the environmental resources of the shoreline is stated as a requirement to achieve "no net loss of ecological functions necessary to sustain shoreline natural resources" as a result of use and development of the shoreline under the new local shoreline master programs that will be developed and adopted over the next few years. This relatively simple phrase poses a number of questions that crafters of SMPs must address and Ecology must be prepared to both assist in the local effort to address them as well as make a determination of compliance once a local government submits the updated program. The purpose of this document is to provide the basic level of explanation of the concept and its implementation.

Legal and policy basis:

The guidelines establish that the foundation of the "no net loss" requirement is the policy of the SMA.

WAC 173-26-176 General policy goals of the act and guidelines for shorelines of the state.

(1) The guidelines are designed to assist local governments in developing, adopting, and amending master programs that are consistent with the policy and provisions of the act. Thus, the policy goals of the act are the policy goals of the guidelines. The policy goals of the act are derived from the policy statement of RCW 90.58.020 and the description of the elements to be included in master programs under RCW 90.58.100.

(2) The policy goals for the management of shorelines harbor potential for conflict. The act recognizes that the shorelines and the waters they encompass are "among the most valuable and fragile" of the state's natural resources. They are valuable for economically productive industrial and commercial uses, recreation, navigation, residential amenity, scientific research and education. They are fragile because they depend upon balanced physical, biological, and chemical systems that may be adversely altered by natural forces (earthquakes, volcanic eruptions, landslides, storms, droughts, floods) and human conduct (industrial, commercial, residential, recreation, navigational). Unbridled use of shorelines ultimately could destroy their utility and value. The prohibition of all use of shorelines also could eliminate their human utility and value. Thus, the policy goals of the act relate both to utilization and protection of the extremely valuable and vulnerable shoreline resources of the state. The act calls for the accommodation of "all reasonable and appropriate uses" consistent with "protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life" and consistent with "public rights of navigation." The act's policy of achieving both shoreline utilization and protection is reflected in the provision that

"permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, in so far as practical, any resultant damage to the ecology and environment of the shoreline area and the public's use of the water." RCW 90.58.020.

(3) The act's policy of protecting ecological functions, fostering reasonable utilization and maintaining the public right of navigation and corollary uses encompasses the following general policy goals for shorelines of the state. The statement of each policy goal is followed by the statutory language from which the policy goal is derived.

(c) Protection and restoration of the ecological functions of shoreline natural resources.

RCW 90.58.020:

"The legislature finds that the shorelines of the state are among the most valuable and fragile of its natural resources and that there is great concern throughout the state relating to their utilization protection, restoration, and preservation."

"This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life."

"To this end uses shall be preferred which are consistent with the control of pollution and prevention of damage to the natural environment."

"Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area. . ."

RCW 90.58.100:

"(2) The master programs shall include, when appropriate, the following:

(f) A conservation element for the preservation of natural resources, including but not limited to scenic vistas, aesthetics, and vital estuarine areas for fisheries and wildlife protection;

(g) An historic, cultural, scientific, and educational element for the protection and restoration of buildings, sites, and areas having historic, cultural, scientific, or educational values; . . ."

Taken as a whole these provisions say that the policy of the SMA is that, while certain uses and development are appropriate and necessary and must be provided for and even fostered, all uses and development must be carried out in a manner that does not degrade the environmental resources of the shoreline. In other words, no uses or development supercede the requirement for environmental protection. Or, as stated in the Guidelines:

WAC 173-26-186 Governing principles of the guidelines.

(8) Through numerous references to and emphasis on the maintenance, protection, restoration, and preservation of "fragile" shoreline "natural resources," "public health," "the land and its vegetation and wildlife," "the waters and their aquatic life," "ecology," and "environment," the act makes protection of the shoreline environment an essential statewide policy goal consistent with the other policy goals of the act. It is recognized

that shoreline ecological functions may be impaired not only by shoreline development subject to the substantial development permit requirement of the act but also by past actions, unregulated activities, and development that is exempt from the act's permit requirements.

Scope and Intent of the phrase "no net loss" as used in the guidelines:

Given the policy of the SMA, the question that the guidelines had to answer was how to translate this general policy into a meaningful and useful standard. The history of the SMA indicates that over time and cumulatively, use and development of the shoreline under the 1972 guidelines and master programs adopted pursuant to them, has resulted in progressive loss of shoreline resources and thereby these programs have not effectively implemented the policy of the SMA. However, this is not to say that nothing has been accomplished. Use and development is significantly different today than it was prior to the Act. The changes are not all attributable to the SMA by any means but it certainly influenced where and how development occurs in a positive manner from an environmental perspective.

The failure is not specific, it is general, the overall effect of many decisions. Traced back to the guidelines, it is essentially a failure to set a bright line. The general policies for protection of the shoreline in the 1972 guidelines were insufficient to guide the vast quantity of individual decisions about master program contents and individual developments. A more specific goal and standard was necessary.

Concomitantly, it is obviously necessary to also give weight to the policy of the SMA calling for accommodating and fostering certain uses of the shoreline. Further to be effective and sustainable, any approach must honor the requirements established in case law concerning nexus and proportionality of requirements imposed on development together with other Constitutional limitations on government authority to regulate private property

Thereby, to address all of these interests, the reasonable policy is that use and development that is appropriate and necessary is planned for and accommodated by assuring that the impacts of establishing uses or conducting development are identified and mitigated with a final result that is no worse than maintaining the current level of environmental resource productivity or "no net loss".

Then the question arises as to how this is measured. Shoreline ecosystems are complex and varied such that at the highest level any change may be considered as loss. However, shoreline ecosystems are also resilient and adaptive to change. By their fluid nature, shorelines change. If the components of the environment that create the environmental values are sustained, then the values will be sustained. These components are the ecological functions that work individual and together to create the shoreline environment. Thereby using the "ecological functions necessary to sustain shoreline resources" as the measure assures that the relevant components of any particular shoreline are identified and protected through implementation of the SMP.

Since we usually plan based on less than complete information, the concept of the guidelines is that identification of ecological functions, and of the proper means to address their preservation over time, will be addressed at a minimum of two levels, the plan level and the project level. This is also consistent with the basic system created in the SMA. This allows planning to move forward where information may be incomplete or uncertain while assuring that before actual projects are authorized, the higher level of

detail and certainty will be available for decision making. The keys to assuring that this works to accomplish the goal of no net loss are:

- Acquisition of adequate information at the plan development stage related to the environment and the impacts of development that can be reasonably anticipated.
- Policies and regulations crafted based on the information that adequately address the impacts of common development types that are frequently proposed with a minimum of discretionary process.
- Policies and regulatory systems that address less common types of development proposals and information gaps with a process that assures full evaluation and appropriate mitigation.

This framework is established in the following section of the Guidelines:

WAC 173-26-201(2)(c) **Protection of ecological functions of the shorelines.** This chapter implements the act's policy on protection of shoreline natural resources through protection and restoration of ecological functions necessary to sustain these natural resources. The concept of ecological functions recognizes that any ecological system is composed of a wide variety of interacting physical, chemical and biological components, that are interdependent in varying degrees and scales, and that produce the landscape and habitats as they exist at any time. Ecological functions are the work performed or role played individually or collectively within ecosystems by these components.

And

When based on the inventory and analysis requirements and completed consistent with the specific provisions of these guidelines, the master program should ensure that development will be protective of ecological functions necessary to sustain existing shoreline natural resources and meet the standard. The concept of "net" as used herein, recognizes that any development has potential or actual, short-term or long-term impacts and that through application of appropriate development standards and employment of mitigation measures in accordance with the mitigation sequence, those impacts will be addressed in a manner necessary to assure that the end result will not diminish the shoreline resources and values as they currently exist. Where uses or development that impact ecological functions are necessary to achieve other objectives of RCW 90.58.020, master program provisions shall, to the greatest extent feasible, protect existing ecological functions and avoid new impacts to habitat and ecological functions before implementing other measures designed to achieve no net loss of ecological functions.

Methodology

The following sets forth an outline of the process for development of an SMP that meets the no net loss standard.

What do you have now.

The inventory and characterization phases of SMP development as established in WAC 173-26-201(3)(c) and (d) are critical to understanding the shoreline resources of a particular jurisdiction. This also establishes the base from which compliance with the standard of "no net loss" is to be measured for purposes of reviewing and approving the SMP. The more information gathered and used at this stage, the greater the level of certainty and predictability that can be built into the SMP.

However it is also understood that availability of information, cost and time constraints may limit the overall level of level of inventory and characterization effort. Further, it is not efficient to gather extremely detailed information about areas that are unlikely to experience much change as a result of use or development under the SMP or to a level of detail as necessary to address types of development that occur infrequently. As established in WAC 173-26-201(2)(e) when development is proposed that can reasonably be expected to have impacts not anticipated and mitigated by the regulations of the SMP, the resources that may be effected must be identified and mitigated sufficiently to assure no net loss of shoreline ecological functions. Under this scenario, no net loss is measured concurrent with the application.

Assessing impacts of plan

In addition to identifying the environmental values of the shoreline, the inventory process identifies the cultural values as well. The uses currently made of the land and the form and character of development that exists are part of the picture that leads to the plan for the future. As a general matter the existing pattern of use and development forms the framework for future plans. Achieving a plan for future development of the shoreline that achieves the standard of no net loss requires evaluation of the aggregate effect of future development which includes both the individual impact of each development and the cumulative impact of all of the development that is likely to occur. The guidelines provide a system for evaluation of the individual impact of specific projects as noted above but also requires that local government evaluate the cumulative impacts of future development in WAC 173-26-186 (8)(d) and WAC 173-26-201(3)(d)(iii) as follows:

WAC 173-26-186 (8)

(d) Local master programs shall evaluate and consider cumulative impacts of reasonably foreseeable future development on shoreline ecological functions and other shoreline functions fostered by the policy goals of the act. To ensure no net loss of ecological functions and protection of other shoreline functions and/or uses, master programs shall contain policies, programs, and regulations that address adverse cumulative impacts and fairly allocate the burden of addressing cumulative impacts among development opportunities. Evaluation of such cumulative impacts should consider:

- (i) *Current circumstances affecting the shorelines and relevant natural processes;*

- (ii) Reasonably foreseeable future development and use of the shoreline; and*
- (iii) Beneficial effects of any established regulatory programs under other local, state, and federal laws.*

It is recognized that methods of determining reasonably foreseeable future development may vary according to local circumstances, including demographic and economic characteristics and the nature and extent of local shorelines.

WAC 173-26-201(3)(d)(iii)

Addressing cumulative impacts in developing master programs. The principle that regulation of development shall achieve no net loss of ecological function requires that master program policies and regulations address the cumulative impacts on shoreline ecological functions that would result from future shoreline development and uses that are reasonably foreseeable from proposed master programs. To comply with the general obligation to assure no net loss of shoreline ecological function, the process of developing the policies and regulations of a shoreline master program requires assessment of how proposed policies and regulations cause and avoid such cumulative impacts.

Evaluating and addressing cumulative impacts shall be consistent with the guiding principle in WAC 173-26-186 (8)(d). An appropriate evaluation of cumulative impacts on ecological functions will consider the factors identified in WAC 173-26-186 (8)(d)(i) through (iii) and the effect on the ecological functions of the shoreline that are caused by unregulated activities, development exempt from permitting, effects such as the incremental impact of residential bulkheads, residential piers, or runoff from newly developed properties. Accordingly, particular attention should be paid to policies and regulations that address platting or subdividing of property, laying of utilities, and mapping of streets that establish a pattern for future development that is to be regulated by the master program.

There are practical limits when evaluating impacts that are prospective and sometimes indirect. Local government should rely on the assistance of state agencies and appropriate parties using evaluation, measurement, estimation, or quantification of impact consistent with the guidance of RCW 90.58.100(1) and WAC 173-26-201 (2)(a). Policies and regulations of a master program are not inconsistent with these guidelines for failing to address cumulative impacts where a purported impact is not susceptible to being addressed using an approach consistent with RCW 90.58.100(1).

Complying with the above guidelines is the way that master program policies and regulations should be developed to assure that the commonly occurring and foreseeable cumulative impacts do not cause a net loss of ecological functions of the shoreline. For such commonly occurring and planned development, policies and regulations should be designed without reliance on an individualized cumulative impacts analysis. Local government shall fairly allocate the burden of addressing cumulative impacts.

For development projects that may have un-anticipatable or uncommon impacts that cannot be reasonably identified at the time of master program development, the

master program policies and regulations should use the permitting or conditional use permitting processes to ensure that all impacts are addressed and that there is no net loss of ecological function of the shoreline after mitigation.

As indicated, cumulative impact analysis requires, an understanding of the current use pattern and the impacts to shoreline ecological functions that have resulted from it, a reasonable estimation of future development potential and consideration of the beneficial effects of other applicable regulatory systems on future development. From this analysis, alternative scenarios for master program policies and regulations can be developed and the impact of those scenarios evaluated.

The time frame for evaluation of cumulative impacts will vary somewhat depending on the jurisdiction. In all cases, the requirement that the SMP be reviewed and updated every seven years (See RCW 90.58.080 for precise time requirements) appears to be a minimum time period.

Management Measures

WAC 173-26-201(2)(c) says:

Master programs shall contain policies and regulations that assure, at minimum, no net loss of ecological functions necessary to sustain shoreline natural resources. To achieve this standard while accommodating appropriate and necessary shoreline uses and development, master programs should establish and apply:

- o Environment designations with appropriate use and development standards;*
- and*
- o Provisions to address the impacts of specific common shoreline uses, development activities and modification actions; and*
- o Provisions for the protection of critical areas within the shoreline; and*
- o Provisions for mitigation measures and methods to address unanticipated impacts.*

While the guidelines allow alternative approaches that accomplish the same purpose, the above list is the basic and traditional toolbox of an SMP. It is the aggregate effect of all four components that provides for necessary and appropriate development while assuring no net loss of shoreline ecological functions. Each component makes a unique contribution to the system. The use of all of the tools assures that each shoreline development shares a reasonable and appropriate portion of the burden of protecting the shoreline resources from cumulative and individual impacts based on the individual character of the land area in question.

Environment Designations

The environment designation system's division of the jurisdiction into areas for particular types and intensities of development is the basic layer of the system. The current character of an area in comparison to the future character, established in a proposed environment designation for that area, generally determine the range and degree of potential impacts to shoreline ecological functions resulting

from development in that setting. The environment designation system also is intended to assure that, at least at the broadest level, like areas will be treated alike, a basic fairness issue.

WAC 173-26-211 Environment designation system.

(2)(a) Master programs shall contain a system to classify shoreline areas into specific environment designations. This classification system shall be based on the existing use pattern, the biological and physical character of the shoreline, and the goals and aspirations of the community as expressed through comprehensive plans as well as the criteria in this section.

And,

(4) General environment designation provisions.

(a) Requirements. For each environment designation, the shoreline master program shall describe:

(i) Purpose statement. The statement of purpose shall describe the shoreline management objectives of the designation in a manner that distinguishes it from other designations.

(ii) Classification criteria. Clearly stated criteria shall provide the basis for classifying or reclassifying a specific shoreline area with an environment designation.

(iii) Management policies. These policies shall be in sufficient detail to assist in the interpretation of the environment designation regulations and, for jurisdictions planning under chapter 36.70A RCW, to evaluate consistency with the local comprehensive plan.

(iv) Regulations. Environment-specific regulations shall address the following where necessary to account for different shoreline conditions:

(A) Types of shoreline uses permitted, conditionally permitted, and prohibited;

(B) Building or structure height and bulk limits, setbacks, maximum density or minimum frontage requirements, and site development standards; and

(C) Other topics not covered in general use regulations that are necessary to assure implementation of the purpose of the environment designation.

(b) The recommended classification system. The recommended classification system consists of six basic environments: "High-intensity," "shoreline residential," "urban conservancy," "rural conservancy," "natural," and "aquatic" as described in this section and WAC 173-26-211(5). Local governments should assign all shoreline areas an environment designation consistent with the corresponding designation criteria provided for each environment. In delineating environment designations, local government should assure that existing shoreline ecological functions are protected with the proposed pattern and intensity of development. Such designations should also be consistent with policies for restoration of degraded shorelines.

General regulations

WAC 173-26-221 provides guidance on how a master program should address the impact on specific types of shoreline resources with particular environmental or cultural importance that may result from any type of development that is proposed. For purposes of achieving no net loss the provisions on critical areas, flood hazard reduction, vegetation conservation and water quality provide a protective framework for these fundamentally important components of the shoreline ecosystem.

Similarly WAC 173-26-231 provides guidance on how a master program should address certain shoreline modification activities that are commonly occur in association with a variety of shoreline uses in order to achieve the no net loss of shoreline ecological functions standard. This includes shoreline stabilization; piers and docks; fill; breakwaters, jetties, groins and wiers; beach and dunes management; dredging and dredge material management; and habitat and natural systems enhancement projects.

Use regulations

WAC 173-26-241 establishes requirements specific to various categories of uses. While much of the usefulness of this section relates to issues related to meeting other policies of the SMA, the provisions do include guidance designed to address environmental impacts. The provisions for establishing conditional uses are a tool for managing uses with uncertain or variable impacts depending on where and how they might be proposed or for accommodating necessary uses that require careful individual evaluation and mitigation measures. Agriculture, mining and forestry uses are addressed as special cases requiring a unique management approach to achieving the no net loss standard.

Project level mitigation measures

An essential element of any strategy to meet the no net loss standard is likely to be permit level mitigation measures. While master programs should anticipate the impacts of common development types and provide systematic mitigation of those impacts, it is unreasonable to expect that the impacts of every development in every situation can be anticipated and therefore some project level review is an essential part of the strategy for even common development types. It is also unreasonable to expect that a master program can anticipate every possible development that may be proposed or all of the impacts of developments that are anticipated but exactly where and how is not yet known. Further, master programs are typically crafted based on broad scale information and in the absence of sometimes critical information and thereby parcel level inventory and analysis is necessary to fully inform decisions about specific projects and permit level mitigation is then necessary to address new information. Finally, new information about resources, impacts of development, and mitigation measures is being developed continuously and should be incorporated into consideration of individual developments where relevant.

The guidelines address project level mitigation in WAC 173-26-201(2)(e) as follows:

Environmental impact mitigation.

- (i) To assure no net loss of shoreline ecological functions, master programs shall include provisions that require proposed individual uses and developments to analyze environmental impacts of the proposal and include measures to mitigate

environmental impacts not otherwise avoided or mitigated by compliance with the master program and other applicable regulations. To the extent Washington's State Environmental Policy Act of 1971 (SEPA), chapter 43.21C RCW, is applicable, the analysis of such environmental impacts shall be conducted consistent with the rules implementing SEPA, which also address environmental impact mitigation in WAC 197-11-660 and define mitigation in WAC 197-11-768. Master programs shall indicate that, where required, mitigation measures shall be applied in the following sequence of steps listed in order of priority, with (e)(i)(A) of this subsection being top priority.

- (A) Avoiding the impact altogether by not taking a certain action or parts of an action;*
 - (B) Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;*
 - (C) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;*
 - (D) Reducing or eliminating the impact over time by preservation and maintenance operations;*
 - (E) Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and*
 - (F) Monitoring the impact and the compensation projects and taking appropriate corrective measures.*
- (ii) In determining appropriate mitigation measures applicable to shoreline development, lower priority measures shall be applied only where higher priority measures are determined to be infeasible or inapplicable.*

Consistent with WAC 173-26-186 (5) and (8), master programs shall also provide direction with regard to mitigation for the impact of the development so that:

- (A) Application of the mitigation sequence achieves no net loss of ecological functions for each new development and does not result in required mitigation in excess of that necessary to assure that development will result in no net loss of shoreline ecological functions and not have a significant adverse impact on other shoreline functions fostered by the policy of the act.*
- (B) When compensatory measures are appropriate pursuant to the mitigation priority sequence above, preferential consideration shall be given to measures that replace the impacted functions directly and in the immediate vicinity of the impact. However, alternative compensatory mitigation within the watershed that addresses limiting factors or identified critical needs for shoreline resource conservation based on watershed or comprehensive resource management plans applicable to the area of impact may be authorized. Authorization of compensatory mitigation measures may require appropriate safeguards, terms or conditions as necessary to ensure no net loss of ecological functions.*

Conclusion:

The phrase "no net loss of shoreline ecological functions necessary to sustain shoreline natural resources" captures the intent of Shoreline Management Act's environmental protection policy while also providing for carrying out the other policy interests of the SMA. Through a careful, well informed planning process and implementation of the resulting plan, local government can reasonably accommodate the full range of state and local interests in our shorelines.



Michael R. Kenyon
Bruce L. Disend
Shelley M. Kerlake

Sandra S. Meadowcroft
Kari L. Sand
Chris D. Bacha
Margaret J. King
Bob C. Sterbank
Steve I. Victor
Renée G. Walls
Sara B. Springer

TO: Jim Haggerton, Mayor
Members of the City Council
Rhonda Berry, City Administrator

FROM: Shelley Kerlake, City Attorney
Kari Sand, Assistant City Attorney

DATE: October 6, 2009

RE: Shoreline Master Plan – Non-conformities and Banking Regulations

As currently proposed, the City's Shoreline Master Plan ("SMP") update may cause some existing structures along the Green/Duwamish River to obtain non-conforming status under local zoning regulations. Potentially affected property owners have raised concerns that this non-conforming status will adversely affect their ability to use their real property as collateral to obtain credit or loans from banks and other lenders.

I. QUESTION PRESENTED

Whether non-conforming status adversely affects a property owner's ability to use his or her real property as collateral to obtain credit or loans from banks and other lenders.

II. ANALYSIS

To determine whether banks are less inclined to extend credit or issue loans against non-conforming structures, we inquired at numerous local lending institutions. Most banking officials we contacted indicated that it is difficult to generalize in this context; however, in terms of procedure, most banks establish their own set of underwriting guidelines that are reviewed and updated regularly, typically quarterly. Over the past year, due to the weakened economy, most underwriting guidelines have steadily tightened, resulting in more stringent loan qualification criteria and procedures.

There are numerous criteria that banks consider when evaluating loan applications, such as, the creditworthiness of the applicant, loan-to-value ratios, and whether the applicant has an established lending history with the bank. Certain "anomalies," such as a non-conforming structure, may fall outside of a bank's loan underwriting guidelines. This does not necessarily mean, however, that a bank will reject the loan application. The bank may require a zoning

opinion letter, which Tukwila planning staff prepare upon request, to address underwriting concerns. Examples of underwriting concerns include whether a non-conforming structure is allowed to rebuild after a catastrophic event (e.g., a fire), and whether any timing, square footage limitations or other zoning restrictions apply in the event of a rebuild scenario¹. These letters assist the lender in assessing the risks associated with a particular loan application and are just one of many factors considered.

III. CONCLUSION

The “bottom line” is that it appears there is no “one-size-fits-all” answer in the lending world, and each bank will apply its own set of criteria based upon a careful review of the unique facts and circumstances presented by an individual borrower. Thus, creating non-conforming structures through City regulation is not a blanket hindrance to financing. If that were the case, cities would never change their codes to create non-conformities.

Should you have further questions regarding this topic, I may be reached at (206) 433-1846 or skerslake@ci.tukwila.wa.us.

¹ There was some testimony at the public hearing regarding a question on loan applications asking whether the property was conforming or not. No bank confirmed that this was an issue at the application stage. Rather, the banks indicated that the conformity they were looking at was whether the loan was a jumbo loan or a “conforming loan.”

R.W. THORPE & ASSOCIATES, INC.

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PRINCIPALS:

Robert W. Thorpe, AICP, President
Stephen Speidel, ASLA, Of Counsel

ASSOCIATES:

Barbara Baker, AICP
Lindsay Diallo, RLA
Lee A. Michaelis, AICP

October 9, 2009

Carol Lumb, Senior Planner
Department of Community Development
City of Tukwila
6300 Southcenter Boulevard Suite 100
Tukwila, WA 98188

RE: Recommended Revisions to the Shoreline Master Program

Dear Ms. Lumb:

Thank you for meeting with Mr. Desimone, Mr. Thorpe, and me on Thursday to discuss the on going review and update process of the City of Tukwila Shoreline Master Program. We are very pleased to see that the City Council has considered our proposed changes and have already began to make changes to the regulations regarding nonconforming structures and uses. We believe this is a very positive step in addressing the concerns of the Desimone Family as well as other property owners along the Duwamish River. We are also pleased to see that city staff and City Council are continuing to review the requirements for landscape/revegetation requirements and the possibility of buffer reduction process. Briefly I would like to summarize our recommendations regarding buffer widths and Landscape Requirements.

- **Request that the city establish a buffer reduction process for Class I Streams similar to the already established process for other streams in the city.** The decision should be an Administrative process that can be determined at the local level and not a Shoreline Variance process. This gives the City the ability to make the decision based on local factors and also provides a more predicable process for property owners.
- **Any requirement for the removal of invasive species and/or the installation of new landscaping needs to be proportionate to the amount of impact that a property owner is proposing.**

There are still some areas of concern that we request the City Council focus on during their October 27, 2009 Work Session. These concerns are the regulations pertaining to Public Access and Height Restrictions.

The Height Incentives provide for in Section 11.5 do not provide sufficient incentives for those properties that are losing up to 80 feet due to the new regulations. The following proposed changes are based on a percentage of the underlying zone and not strictly by the number of stories.

“B. The maximum height for structures may be increased by ~~one story~~ 25% of the underlying zone when:

1. Development devotes at least 5% of its building or land area to public shoreline access; or
2. Development devotes at least 10% of its land area to employee shoreline access.” [11.5 Public Access Incentives Page 129]

With these changes, the following are some examples of the allowed height for those underlying zones that exceed 45 feet

Underlying Zone	Maximum Height Outside Buffer	25 Percent of Allowed Height	New Height within High Intensity/Urban Conservancy Buffers (45 feet + Height Incentive)
MIC/H	145'	31.25'	76.25'
TUC	115'	28.75'	73.75'
HI	115'	28.75'	73.75'

The requirement for Public Access continues to be too demanding. Public Access (trails and access points) should be identified on Map 6 and established prior to adoption of the SMP. Requiring any property that creates an increased in demand for Public Access under criteria 1 below does not represent a thought out process in determining which locations would benefit the public the most. Beneficial access points to the proposed trails should be identified on Map 6. We are proposing the following changes to reflect our desire to change the Public Access requirements.

“11.1 Applicability

A. Public access shall be provided on all property that abuts the Green/Duwamish River shoreline in accordance with this section as further discussed below where any of the following conditions are present.

~~1. Where a development or use will create increased demand for public access to the shoreline, the development or use shall provide public access to mitigate this impact.~~

2. Where a development or use will interfere with an existing public access way, the development or use shall provide public access to mitigate this impact. Impacts to public access may include blocking access or discouraging use of existing on-site or nearby accesses.

3. Where a use or development will interfere with a public use of lands or waters subject to the public trust doctrine, the development shall provide public access to mitigate this impact.

4. Where the development is proposed by a public entity or on public lands.

5. Where identified on the Shoreline Public Access Map.

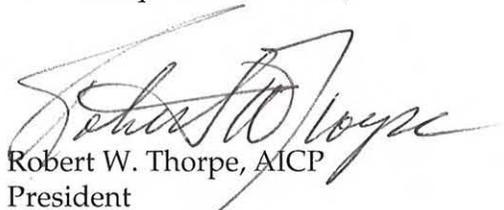
~~For the purposes of this section, an "increase in demand for public access" is determined by evaluating whether the development reflects an increase in the land use intensity, for example converting a warehouse to office or retail use, or a significant increase in the square footage of an existing building. A significant increase is defined as an increase of 3,000 square feet [11.1 Applicability Page 126]~~

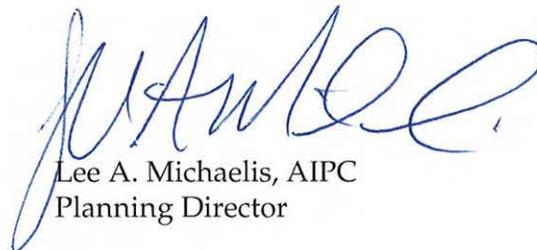
C. Development on Properties Where Public Access Points are Planned

A 10-foot wide trail easement dedicated to the City for public access from the adjacent right of way to the river shall be provided in areas identified for new shoreline access points (Shoreline Public Access Map, Map 6). [New Section 11.3.C Page 128]

Thank you for considering the above revisions to the City of Tukwila Shoreline Master Program and for including these comments in the Council SMP Working Matrix. We look forward to continuing to work with you and the City Council to develop and Shoreline Master Program that can be favorable to everyone. If you have any questions about these comments please call me Robert W. Thorpe, AICP or Lee A. Michaelis, AICP at 206.624.6239.

Sincerely,
R.W. Thorpe & Associates, Inc.


Robert W. Thorpe, AICP
President


Lee A. Michaelis, AIPC
Planning Director



DRAFT Restoration / Sustainability Program

Non Conforming Uses & Buildings
Program Options (+/-5 Year Time-Frame):

1. Shoreline Buffer:

- A. Use Buffer Averaging. (Widths TBD)
- B. Re-vegetate Shoreline Upland from OHWM.

WA Dept. of Ecology Recommended Species for Shoreline Slope Stabilization:

Trees:

Shoreline:
Pacific Willow,
(*Salix lasianra*)

Slope Face:
Scouler Willow,
(*Salix Scouleriana*)

Top of Slope:
Douglas Fir,
(*Pseudotsuga Menziesii*)

Shrubs:

Slope Face & Upland:
Red-Osier Dogwood,
(*Cornis Sericea*)

Salmonberry,
(*Rubus Spectabilis*)

Salal,
(*Gaultheria Shallon*)

Shoreline:
Wax Myrtle,
(*Myrica California*)

Groundcover:

Native Plant Seed Mix:
(40% perennial rye,
40% Colonial Bent Grass,
10% Creeping red fescue,
10% White Dutch Clover)
Kinnickinick,
(*Arctostaphylos uva-ursi*)

Planting Costs are estimated to be \$1.50-3.00 per square foot, not including a 25% premium for areas with slopes exceeding 35 degrees.

2. Stormwater Detention/ Water Quality Enhancement:

- A. Replace catch basins along right-of-way and in parking lots with units capable of filtering oils, garbage and heavy metal particles from storm water.
- B. Replace a portion of impervious parking surface with pervious paving material.
- C. Re-vegetate area using native plants.
- D. Building Remodels:
 - i. Rooftop rain gardens.
 - ii. Capture of rainwater for irrigation.
 - iii. Install solar power systems.

See Also: *Urban Land Institute Sustainability Program Recommendations. (Sept. 2009)*

Implementation:

- 1. Program elements to be selected as part of a CUP or Variance Process and implemented over a +/-5 year time period.
- 2. Improvement program to be bonded for performance and maintainance.

CITY OF TUKWILA SHORELINE MASTER PROGRAM UPDATE

DESIMONE TRUST

R.W. Thorpe & Associates, Inc.
Seattle - Anchorage - Denver

Planning ◊
Landscape Architecture
Environmental ◊ Economics
◊ Project Management

710 Hoge Building
705 Second Avenue
Seattle Washington 98104

Telephone: 206.624.6239
Fax: 206.625.0930
E-Mail: planning@rwta.com

CLIENT REPRESENTATIVES

BNY Mellon
Wealth Management Office
1201 Third Avenue - Suite 5010
Seattle, WA 98101

RWTA JOB NO.
0809079

SOURCE:
KING COUNTY ASSESSOR'S MAP
SE 04-24-04 (April 2008)
KING COUNTY IMAP
2005 AERIAL IMAGE

SITE PLAN:

SECRET GARDEN STATUARY
Tax Parcel #
0423049169

PROPOSED REGULATIONS
FIGURE 3.B

Carol Lumb - SMP Language

From: "Jeff Weber"
To: "Carol Lumb"
Date: 10/19/2009 3:13 PM
Subject: SMP Language
Attachments:

Carol,

Thanks for providing me with staff's proposed language on the buffer reduction issue. As I mentioned this morning, we appreciate the City's pulling back on its proposed language regarding costs, indemnity, etc.

Prior to our meeting with you on Thursday, I thought it would be helpful to list our comments/suggestions on particular portions of the language. I've attached a redline showing our proposed changes, which address the following points:

--It is likely that most levee reconstruction projects will be done by government agencies, so we have added a reference to cover that.

--As I explained this morning, we don't think the concept of an overall slope of 2.5 to 1 captures what we think you are trying to accomplish – e.g., to specify the minimum standards for the levee profile the city would accept for buffer reduction purposes. I think what you are after is a requirement that the levee front slopes (above and below the midslope bench) be no steeper than 2:1. (Note - the levee cross sections depicted in the attachments to our comment letter do not provide an overall slope of 2.5 to 1. Mathematically, a levee profile that includes a 15 foot midslope bench with 2:1 slopes above and below the bench is only going to result in a overall slope of 2.5 to 1 in the case of one height of levee, which is not the levee height existing at this location of the river.)

--We see no reason why it should not be possible to substitute a floodwall for all of the backslope, as well as a portion of the backslope.

--As you can see from the attachments to our comment letter, space is very tight along the western edge of the James Campbell Co. property. While we assume and hope that a reasonable access road and the existing required parking can be preserved without needing to use a floodwall, we would like the option for a floodwall to be used if needed to preserve reasonable access or required parking that cannot be accommodated elsewhere on the site. Thus, we think it is too restrictive to say that a floodwall can only be used to avoid encroachment on a structure.

--We request that you allow the width of the levee top to be reduced by up to 25% if that is necessary to keep ten feet of clearance between a floodwall and a building. In a very tight situation, that extra room may be critical, and minor variations to the levee top do not undermine the City's key goals. I note that, if the levee adjacent to the Glacier building were ever reconstructed, a reduction in the levee top would be needed to avoid the existing building (with 10' clearance) even if a floodwall were used.

--As we've previously noted, there is a serious issue related to the existing railroad easement on the JCC property; thus, we request that you allow floodwalls to be used, and other minor variations to be made, where necessary to avoid encroachment on railroad easements. Otherwise, the railroad issue could preclude timely reconstruction of the levee in this area.

--Finally, we liked the concept you suggested regarding not including the no build area in the buffer if the property owner grants the City a maintenance easement, and we have proposed specific language on that score.

Thanks for your consideration of these matters. We will see you on Thursday.

Jeff

<<bufferreductionrevisions.doc>>

Jeff Weber

GordonDerr LLP

2025 First Avenue, Suite 500

Seattle, WA 98121-3140

206-382-9540

fax 206-626-0675

jweber@GordonDerr.com

www.GordonDerr.com

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As an alternative to the 125 foot buffer for leveed areas, a property owner or government agency may construct levee or riverbank improvements that meet the Army Corps of Engineers, King County Flood Control District, and the City of Tukwila levee standards. These standards at a minimum shall include an overall slope of 2.5:1 from the toe of the levee to the riverward edge of the crown, a 15 foot mid slope bench, levee front slopes (above and below the midslope bench) of no steeper than 2:1, 20' access across the top of the levee, a 2:1 back slope, and an additional 10 foot no-build area measured from the landward toe for inspection and repairs. A floodwall is not the preferred back slope profile for a levee and may be substituted for all or a portion of the back slope only where compliance with the foregoing standards would result in necessary to avoid encroachment upon or damage to a structure legally constructed prior to the date of adoption of this Master Program, required parking for such a structure that cannot be accommodated elsewhere on the site, or a reasonable access road serving such a structure. The floodwall shall be designed to be the minimum necessary to provide 10' clearance between the levee and the building, or the minimum necessary to preserve required parking or a reasonable access road, while meeting all engineering safety standards; provided that, if there is insufficient space to provide 10' clearance between the floodwall and building, the width of the levee top may be reduced by up to 25% in order to provide 10' clearance. A floodwall may also be used, and other minor variations made, where necessary to avoid encroachment on a railroad easement. As a condition of approval of a floodwall, the property owner shall sign a Hold Harmless, Indemnity and Reimbursement Agreement in a form approved by the City Attorney, in which the property owner commits to reimburse the City for all design, construction, and inspection costs related to the floodwall; indemnify, defend and hold the City harmless from any damages arising from the floodwall; and maintain the floodwall at no cost to the City.

In areas of the river where this condition a levee meeting the foregoing requirements currently exists or where the owner or a government agency has constructed these improvements meeting those requirements, the buffer will be reduced to the actual ~~distance~~ width of the levee as measured from the ordinary high water mark to the landward toe of the levee or face of a floodwall, plus ten feet. Provided that, the ten feet referenced in the preceding sentence shall not be included in the buffer in cases where the property owner grants the City a ten-foot inspection and maintenance easement (measured ten feet landward from the landward toe of the levee or face of a floodwall) meeting the following standards:

- a. Construction of structures that would interfere with the City's maintenance and inspection activities shall be prohibited in the easement area. Facilities allowed within the easement area shall include, but not be limited to, pavement for parking or access roads, as well as underground utility facilities.
- b. Temporary obstruction of the easement area shall be permitted to facilitate construction and maintenance of structures located landward of the easement area, as well as improvements permitted in the easement area.
- c. If the landward toe of the levee or floodwall face is moved closer to the river, the easement area shall be relocated to be adjacent to the new levee toe or floodwall face.