

RIVER PLAN / NORTH REACH RECOMMENDED PLAN

**AMENDMENTS TO THE RIVER PLAN / NORTH REACH
INTRODUCED BY MAYOR ADAMS AND COMMISSIONER FRITZ**

March 24, 2010

Amendments to the River Plan / North Reach

This section serves as an annotated table of contents for this amendment package.

Part A: Amendments to Volume 1 A	
Page(s)	Description of Amendment
32-33	This section includes changes to the description of the river environmental overlay zone to indicate that access to the river is also a goal of the River Plan / North Reach. Other amendments indicate the City's desire to have one or more mitigation banks operating in the North Reach; and, the City's plan to certify mitigation banks that operate in the North Reach. It also includes a new shaded box describing the relationship between Superfund and the River Plan.
37-38	The section that describes the vegetation standard has been changed to reflect the proposed changes to 33.475.220.
54	Edits to this page are to the shaded box titled "Native Peoples of the Willamette Valley" to clarify that there was one treaty that ceded ownership to the Willamette Valley to the United States.
56-57	Proposed amendments to this section more clearly articulate the need for the City to continue reviewing applications for development below the ordinary high water mark. Also included in this section is an updated description of the Early Project Review process and a new chart that shows how this process will integrate into the existing City, state and federal agency legal review framework.
61	This new section describes the process that the City proposes to use to evaluate the effectiveness of the River Plan / North Reach. It includes the establishment and general make up of the North Reach Advisory Committee.
90 Action Agenda	Economic prosperity action agenda. The Office of Healthy Working Rivers is added as an implementation agency for action items EP4, prepare a small shipper rail strategy, and EP5, investigate the feasibility of adding a regional rail yard.
96 Action Agenda	Five additional actions are included in the Watershed Health Action Agenda. These include actions related to public education about planting on steep slopes, mitigation banking and eeroofs.
102 Action Agenda	Two additional actions are included in the Access Action Agenda related to adding signage along the greenway trail and exploring design options for pedestrian/bicycle connections in Linnton.
106 - 107 Action Agenda	One additional action is included to the Working with our Partners Action Agenda. This action calls for the formation of the North Reach Advisory Committee to evaluate the implementation of the River Plan / North Reach.
Map 2	Map 2 amendments include removing a trail segment in Linnton (due to the proposed reclassification as a potential greenway trail). Also see the zoning code map changes in Volume 1B.
Map 8	The Map 8 amendment reclassifies a trail segment in Linnton to a potential greenway trail. Also see the zoning code map changes in Volume 1B.
Map 9	The Map 9 amendment reclassifies a trail segment in Linnton to a potential greenway trail. Also, see the zoning code map changes in Volume 1B.

Part B: Amendments to Volume 1B		
Replacement Page #	Code Chapter/ Section	Description of Amendment
9	33.475 Table of Contents	The table of contents has been amended to reflect the change from Minimum Vegetated Area to Vegetation Enhancement Standard, and to reflect the change in numbering of the Removal and Remediation of Hazardous Substances section.
10	33.475.030 commentary	The commentary has been amended to eliminate language referring to the clean up action being conducted under the authority of the Oregon Department of Environmental Quality. The removal and remediation of hazardous substances section will be the substantive regulations that apply to all clean up actions not just those that are conducted under the authority of Oregon DEQ.
11	33.475.030.A	The words "and .460" were deleted from this section to clarify where sections of this chapter apply.
13	33.475.030	Subsection F has been amended to eliminate reference to ORS statutes, in order to make it clear that the requirements in Section 33.475.460 apply to all clean up actions regardless of whether the action is exempt from the City's permitting process..
15	33.475.060.C.3	Paragraph C.3 required that the number of kinds of credits being purchased from a mitigation bank be included in a permit application. This paragraph was deleted because the number and type of credits purchased will be evaluated as part of River Review rather than when the development comes in for a permit to build. In addition, paragraph C.4 was renumbered to be C.3.
16	33.475.110 Commentary	For clarification purposes, the word "primary" was inserted ahead of use in the first sentence.
18 and 19-19e; 28 and 29-29e; 36 and 37-37e	33.475.120; 33.475.220; 33.475.320	These sections have been amended to reflect revisions to the Minimum Vegetated Area standard. The standard is now based on the requirement to spend 1 percent of total project value on enhancing native vegetation on the site. The standard allows the applicant to pay a fee-in-lieu of on-site vegetation enhancement.
25	33.475.210.C	The reference to 33.475.220.D.1.c(1) has been updated to refer to the correct subsubparagraph.
33	33.475.310.B	The general information about the River Setback has been amended to clarify the types of recreational development that should be considered river-dependent. The reference to 33.475.320.D.1.c(1) has been updated

	33.475.310.C	to refer to the correct subsubparagraph.
41	33.475.405	For clarification and consistency purposes, the words "natural resource features and functional values" were added to this section.
43	33.475.430.A.3.a	Operation, maintenance, repair and replacement of existing development on a site is exempt from the river environmental overlay zone standard when the coverage (i.e. footprint) is not increased. A requirement that the change not decrease permeability has been added.
	33.475.430.A.3.b	The exemption for utilities has been called out separately to make it clear that replacement is exempt unless in the cases where the utility is underground and the size of the underground utility is increased. This also clarifies that utilities attached to existing structures can be replaced and the size can increase without being subject to the river environmental overlay zone regulations.
	33.475.430.A.3.c	Removal of structures will be exempt from the River Environmental overlay zone regulations when the removal does not result in disturbance of the ground. This is consistent with implementation of the exemptions for the environmental overlay zones.
	33.475.430.A.3.d	An exemption for pruning trees within 10 feet of a structure has been added. This is a standard exemption in the Environmental Conservation and Environmental Protection zones.
	33.475.430.A.3.f	The exemption for structures on paved areas has been split into two exemptions. The first exempts structures on existing paved surfaces because paved areas are already impacted and adding a structure will not significantly change that dynamic.
	33.475.430.A.3.g	The exemption for docks, wharfs and piers is called out separately to clarify that in the case of dock, wharf or pier, the river environmental zoning applies to the river underneath the structure rather than to the structure itself.
45	33.475.430.A.3.g and 3.h	The lettering has changed to reflect the inclusion of subparagraph b.
	33.475.430.A.4.c	This subparagraph has been amended to delete a requirement that monitoring wells located above ordinary high water be flush mounted. The requirement that monitoring wells be flush mounted has been deleted from other sections of the River Plan code

		because in many cases it is not practical or feasible.
47	33.475.430.A.4.i	This exemption has been amended to include signs that provide operational aids on industrial sites (such as on-site speed limit sign, directional signage, etc.)
48	33.475.430.B.2 commentary	The reference to the tree removal standards (B.10) has been amended because the numbering of that paragraph has changed.
49	33.475.430.B.2.e and 2.f	The change on this page reflects renumbering of paragraphs that come later in this subsection.
51	33.475.430.B.3.a 33.475.430.B.3.c and 3.d, and 4.c and 4.d 33.475.430.B.5	The width of a corridor allowed for a rail right-of-way has been changed to 20 feet after discussion with the Port of Portland. 20 feet is generally required for installation of a track. Changes to these subparagraphs are due to renumbering of paragraphs that come later in this subsection. This set of standards allows stormwater outfalls to be installed in the river environmental overlay zone under certain circumstances. The standards initially has a limitation on the number of outfalls per site (one). That limitation has been deleted in order to increase flexibility for property owners.
51a	33.475.430.B.5.c, B.5.d, B.5.e B.5.d and 5.e, and 6.b and 6.c	These subparagraphs have been re-lettered as a result of deleting the one outfall per site limitation. These changes reflect renumbering of paragraphs that come later in the subsection
53	33.475.430.B.7.a(3) 33.475.430.B.7.a(5)	The term geotextile has been replaced with biodegradable. Biodegradable is the more correct technical term in this context. The change to this subsubparagraph reflects renumbering of a paragraph that come later in this subsection.
56 and 57	33.475.430.B.8 commentary and code	These standards allow site investigative work in the river environmental overlay zone under certain conditions. The standards initially limited disturbance to areas landward of the top of bank. In order to facilitate investigation and clean up of contaminated sites, the requirement has been revised to allow a limited amount of disturbance riverward of the top of bank. In addition the standards required mitigation for disturbance. The standard has been revised to simply require that the disturbed area be restored to pre-existing condition. Stakeholders feel that the standard 1.5 to 1 mitigation area ratio is too onerous for simple site investigative work .

	33.475.430.B.9 commentary and code	This paragraph is a new set of standards for development in a public park. The standards will allow Portland Parks and Recreation to install typical small scale amenities in the River Environmental overlay zone without going through a River Review. To off-set the impacts from the development, mitigation is required. Typical development could include the installation of benches, picnic tables, drinking fountains, and bioswales. The paragraph sets a limit on the amount of disturbance allowed through standards. Any development that disturbs more than 500 square feet will require River Review.
56a	33.475.430.B.10 commentary	The change on this page reflects re-lettering as a result of adding paragraph 9.
57a	33.475.430.B.10.a.(1)-bullet 8	The paragraph as been renumbered, and a reference has been added to reflect the addition of the development standards for city parks.
58	33.475.430.B.10 and B.11 commentary	The changes on this page reflect renumbering of the paragraphs as a result of adding paragraph 9.
59	33.475.430.B.10.b(2) 33.475.430.B.10.c(3) 33.475.430.B.10.c(4) 33.475.430.B.11 33.475.430.B.11.a	<p>This change allows Portland Parks and Recreation to remove trees in conjunction with a resource enhancement project that restore native oak woodland. The existing proposal only allows Bureau of Environmental Services to undertake native oak woodland projects.</p> <p>This change allows the City Forester to approve non-native non-nuisance trees as replacement street trees in the River Environmental overlay zone. The change is consistent with the Tree Policy project.</p> <p>The tree standards initially required that the replacement tree have a canopy factor equal to or greater than the tree removed. The idea for a canopy factor was being included with the Citywide Tree Policy Project. That project has since dropped the canopy factor recommendation, so the reference to it has been dropped from this proposal.</p> <p>This change reflects renumbering of paragraphs as a result of adding paragraph 9.</p> <p>Subparagraph B.11.a has been amended to eliminate the requirement that mitigation occur at a higher than 1.5:1 ratio when the mitigation will occur off-site, and when an existing mitigation area is being redeveloped with industrial development. The amendment reflects stakeholder concern that the costs for mitigation are too high and will negatively affect redevelopment</p>

		opportunities in the North Reach.
61	33.475.430.B.11.c	This standard has been amended to eliminate the possibility that mitigation planting would occur at a time of year when the plants can not successfully establish. By allowing the mitigation planting to occur at the same time as the development or within six months of the development, we guarantee that the mitigation is done proximate to the impact and that the property owner can plant at the right time.
	33.475.430.B.11.d	The change on this page reflects renumbering of paragraphs as a result of adding paragraph 9.
62 and 63	33.475.430.B.11.j	The amendment to this subparagraph reflects the changes in numbering due to the revised Vegetation Enhancement Standard. The change affects references only.
	33.475.430.B.11.k code and commentary	This subparagraph allows applicants to choose to pay fee-in-lieu of mitigation, which the City will use for restoration purposes in the North Reach.
70-77		These pages have been intentionally left blank. The code language that was on them has been incorporated into the new Vegetation Enhancement Standard. In order to keep the page numbering consistent, these pages must be left blank. The zoning code will not have blank pages.
78-85, 87-88	33.475.460 code and commentary	The regulations for the removal and remediation of hazardous substances have been amended on the advice of the City Attorney's office. The changes have been made to improve legal clarity and consistency with other sections of the Portland City Code, state law and federal law. The changes are not intended to be significant substantive changes to the requirements presented in the June 2009 draft of this code section.
96-97	33.248.090.D commentary and code	The change to this subsection ensures that invasive/nuisance plants are removed from mitigation areas in the River Environmental overlay zone.
107	33.430 Table of contents, and 33.430.020	The table of contents and the Environmental Reports sections of this chapter have been amended to include a map of and reference to the River Plan / North Reach reports, including the Natural Resources Inventory.
	33.430.080.D.1	Exemption D.1 has been amended to allow temporary drip irrigation of newly planted areas for up to 3 years. The change is intended to ensure that property owners don't have to hand water plants while they are establishing.
107a - 107d	33.430 maps	The protection plan area maps for the Columbia

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River Plan / North Reach

Amendments
River Plan / North Reach Recommended Draft

	430-2, 430-3, 430-6, and 430-13	Corridor, East Buttes and Terraces, and Northwest Hills have been amended because some of the area that had been within their resource site boundaries is now within the River Plan / North Reach resource site boundary. A new map has been added to show the boundaries and resource sites for the River Plan / North Reach.
113	33.440.050	This section has been amended to clarify that not all development in the greenway setback must be approved by DSL and the US Army Corp of Engineers.
177	33.860.030	The duration of a Comprehensive Natural Resource Plan has been clarified to allow consideration of possible development that might occur anytime in the next 10 years. Previously, the language was unclear about whether the plan could consider possible development that might occur within the next three years.
185	33.865.010 33.865.040.A	The changes to the purpose statement for River Review reflect clarification. In the second bullet, wording has been added to more clearly state what the compensation is for, and the language more closely mirrors the approval criterion. The fourth, fifth and sixth bullets have been reworded to read more clearly. The change to this subsection has been made clarification purposes.
187	33.865.020 33.865.030	The subsection regarding fine tuning of boundaries has been split into two subsection for ease of reading and clarification purposes. The procedure type for a River Review has been changed to Type Iix in order to ensure that the applicant gets complete and timely information from the City.
191	33.865.040.A.4	The change to this paragraph has been made for clarification.
193	33.865.040.B.1	Several changes have been made to this subsection. Staff has attempted to clarify what inventory information forms the basis of the alternatives analysis (the City's natural resource inventory as supplemented by any information from a qualified consultant that the applicant chooses to submit). The changes also reflect clarification of what information can be found in the City's inventory documents and data.
195	33.865.040.B.1.b	Subparagraph b has been deleted and subparagraph c has been renumbered. Subparagraph b included language about supplying information about the HEP HEA calculation when the applicant purchased credits from a bank. Other revisions have resulted in deleting the requirement that a mitigation bank use HEP HEA exclusively, therefore this application requirement is not necessary.

197	33.865.040.B.3 33.865.040.B.5.a, 5.d and 5.e	<p>This paragraph has been revised to be more clear about the applicant's supplemental environmental site assessment information.</p> <p>The amendment to subparagraph B.5.a allows applicants to purchase credits from any mitigation bank that is certified by the City, not just the City's own mitigation bank. The addition of subparagraph B.5.d requires that the mitigation plan include an operations and long-term maintenance plan. The addition of subparagraph B.5.e requires that every mitigation plan include monitoring and evaluation procedures.</p>
198	33.865.100.B commentary	Language related to the definition of practicable has been added to this commentary section to provide additional clarity.
199	33.865.040.B.5.h 33.865.100.B.1.a 33.865.100.B.2.b 33.865.100.B.2.c	<p>This subparagraph has been amended to use wording that matches the wording of the approval criterion.</p> <p>The word net has been added so that the criterion reads no "net" loss rather than no loss.</p> <p>The criterion has been amended to make it clear that the alternatives analysis only needs to focus on practicable alternatives outside of the River Environmental overlay zone that are within the applicant's site.</p> <p>This criterion has been amended to clarify that the approval criterion applies within the North Reach.</p>
200-203	33.865.100.B.2.d commentary and code	The mitigation approval criterion for River Review has been revised to provide additional clarity on the factors that will influence the decision regarding whether the mitigation should be located on-site or off-site mitigation. The code language has also been amended to allow off-site mitigation to occur at one of the Willamette River restoration sites or through payment of a fee-in-lieu. The fee-in-lieu option will expire in two years when the City expects to have a mitigation bank up and running in the North Reach.
205	33.865.100.C.3	The last sentence of this paragraph has been deleted because it is confusing in the context of altering the boundary based on additional detailed site assessment information that is not included in the City's natural resource inventory.
207	33.900.010	The terms Dredge Material and Ordinary High Water Mark have been added to the zoning code's List of Terms because a definition for each term has been added to the Zoning Code.

	33.910.030	<p>The definition of drainageway has been amended to further clarify the types of open linear depressions that meet the definition of drainageway.</p> <p>The definition of dredge material has been amended to delete the description of fill material.</p>
219	24.50.060.F.8.c	The word "Mitigation" has been deleted from this sentence in order to eliminate any possibility that the payment allowed in lieu of balancing a fill is related to habitat mitigation.
Quarter Sections 1717 and 1718	Zoning Maps	The edge of the river environmental overlay zone boundary on the PGE Harborton site has been altered slightly to reflect a more accurate location of the wetland on the river bank.
Quarter Sections 1918 and 1919	Zoning Maps	The location of the public trail stars has been amended in the Linnton area. The trail designation has moved from NW Front Avenue to NW St. Helens Road/Hwy. 30 in order to eliminate conflicts with existing industrial operations. The trail designation remains along NW 107 th Avenue and along the riverfront in Linnton. The NW Front Avenue alignment will shown as a potential greenway trail in the River Plan / North Reach reports.
Quarter Section 1920	Zoning Map	This zoning map has been amended to indicate that there is an area at the end of the Schnitzer slip where the river environmental overlay zone starts at the ordinary high water mark. This indication was inadvertently left of the previous versions of the map.
Quarter Section 2324	Zoning Map	The environmental protection overlay zone has been changed to environmental conservation overlay zone on a portion of the bluff on the University of Portland campus in order to accommodate the development of a parking structure that will connect the upper and lower portions of the campus.
Part C: Amendment to Volume 3C		
Replacement Page	Description of Amendment	
212	This amendment describes the reason for a change from environmental protection to environmental conservation zone on the University of Portland bluff.	

Part A. Amendments to Volume 1A

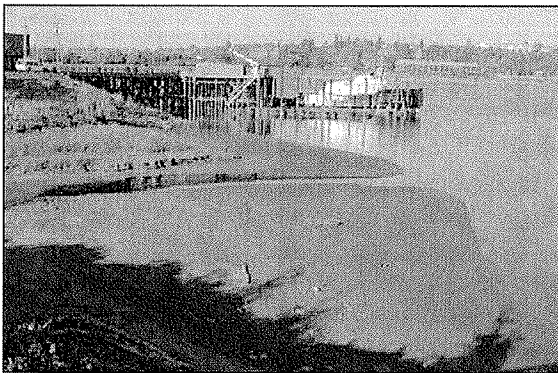
The following pages contain proposed amendments to Volume 1 A. These pages include text, maps and a flowchart. Language to be added is underlined. Language to be deleted is shown in ~~striketrough~~. Changes from the February 2010 version are highlighted.

Apply a river environmental overlay zone to high and medium ranked natural resources that exist within the boundaries of the river overlay zones.

The City has ~~dual~~-multiple goals for the riverfront in the North Reach: to support river-dependent and river-related uses, to provide access to the river and to protect and restore natural resource functions including fish and wildlife habitat.

Achieving natural resource protection within a heavily developed industrial area is no small endeavor, especially when development located on riverfront sites is required to use the river. Due to the importance of maritime shipping to the state and local economy, regulating development within natural areas must be done in a way that balances economic and environmental needs. In addition, much of the vacant land is contaminated and increasing development costs and process uncertainties can be a barrier to cleanup and redevelopment of those sites. This makes the environmental zoning approaches used elsewhere in the city more challenging to apply in the North Reach.

Given these circumstances, a new River Environmental overlay zone (e-overlay) is recommended as a way to maintain riparian and wildlife natural resources and habitat connectivity along the river. This will be critically important to avoid



Balch Cove is a candidate site for Portland's River Restoration Program. Enhancing shallow water habitat will provide an off-channel refuge for salmon.

significant natural resource values and functions as development occurs. The proposed regulations will require developers to avoid, minimize, and/or mitigate for impacts to natural resources.

Natural Resource Damage Assessment (NRDA)

According to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as "superfund", and the Oil Pollution Act of 1990, owners and operators of facilities that released hazardous substances are liable for the cleanup cost and compensation for injury to natural resources as a result of those releases.

The Portland Harbor Natural Resource Trustee Council

(Trustees) is comprised of three agencies: NOAA Fisheries, US Fish & Wildlife Service, and the Oregon Department of Fish and Wildlife; and the Confederated Tribes of the Warm Springs Reservation of Oregon, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Grand Ronde Community of Oregon, Confederated Tribes of Siletz Indians of Oregon and Nez Perce Tribe. The Trustees are authorized to conduct studies within the Portland Harbor Superfund Site to identify the extent of natural resource injuries, the best methods for restoring those resources, and the type and amount of restoration required.

This compensation process may take the form of a natural resource damage assessment (NRDA) in which the Trustees assess damages from pollutants to public trust resources since December 11, 1980.

According to the January 2007 Trustees report, *Preassessment Screen for the Portland Harbor Superfund Site*:

"... it is evident that the direction of the remedial investigation/feasibility study is not toward full restoration of likely injuries, and will not address lost services of resources which have been ongoing since the enactment of CERCLA. Thus, additional restoration, replacement, and rehabilitation of natural resources

further deterioration of watershed health, and to protect public health and safety as businesses continue to expand and redevelop in the North Reach. The new e-overlay regulations will apply generally to high and medium ranked resources identified in the WNRI. The high and medium ranked resources are primarily the river, streams, wetlands and adjacent woody vegetation, vegetated flood areas, vegetated riverbanks, steep slopes, and important wildlife habitats and corridors. (See Map 6: *Watershed Health – Proposed Overlay Zones and Action Items*).

The purpose of the e-overlay is to protect significant natural resource values and functions as development occurs. The proposed regulations will require developers to avoid, minimize, and/or mitigate for impacts to natural resources.

What is the relationship between Portland Harbor Superfund and the River Plan / North Reach?

The Portland Harbor Superfund study area is within the boundaries of the River Plan / North Reach, but the two programs have different authorities, implementation approaches, and goals. Superfund implements federal law and focuses on cleaning up contamination resulting from past actions or operations. The River Plan / North Reach is the City's land use plan for a geographic area that includes, but is larger than, the Portland Harbor Superfund Site. The River Plan implements state land use law and City policy for a range of development activities.

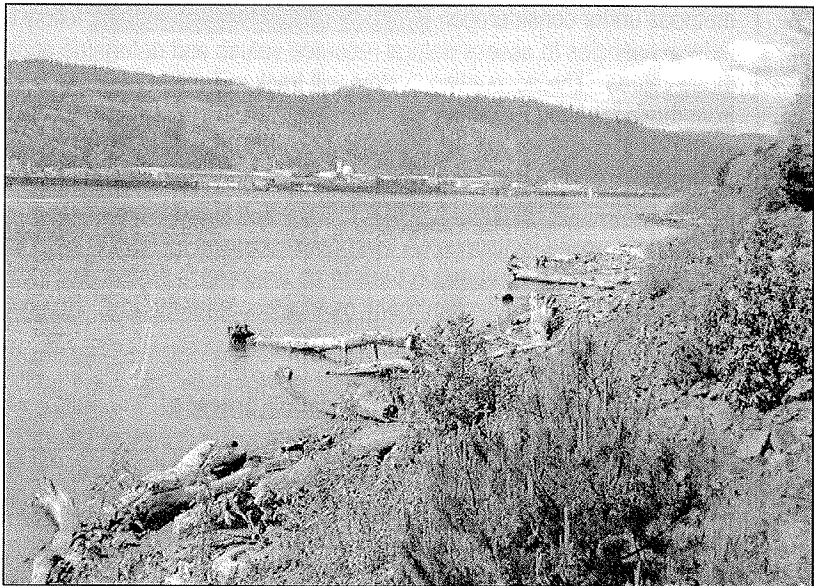
Both of the programs have a mitigation component but the mitigation is for different purposes. The Natural Resources Damages Assessment part of the Superfund process requires mitigation for natural resource damages caused by pollution. The River Plan / North Reach requires mitigation for development-related impacts to ensure no net loss of habitat and vegetation to improve future conditions in the Willamette River. Mitigation required for one program cannot be used to comply with the other program.

The two programs will have complementary results because both ultimately will improve human health and the environment.

The plan does not apply the e-overlay to portions of riverbank that are currently in river-dependent industrial use or that are hardened and without vegetation. These areas rank low in the WNRI. Additionally, the e-overlay is not applied to flood areas that are mostly developed and where the only existing natural resource function is water storage during flood events. The flood area will continue to be subject to balanced cut and fill regulations. Application of the e-overlay will encourage innovations in low impact development to expand both economic and natural resource functions as these sites develop.

Some development-related activities, such as normal repair and maintenance, will be exempt from the regulations. Development that is not exempt will either meet development standards or undergo a discretionary land use review. Standards for specific development activities are included in Volume 1B: *Code Amendments and Zoning Maps*. Mitigation will be required for most development in the e-overlay.

The approval criteria applied during discretionary land use reviews will focus on minimizing detrimental impacts to natural resources and functions within the e-overlay. An alternatives analysis will be mandatory and mitigation will be required to compensate for unavoidable impacts. During the course of a review, an applicant will have the opportunity to provide updated site assessment data pertaining to the natural features. This information may be used to supplement and update the City's inventory data and will be used to inform the review process and decision. Off-site mitigation through an approved mitigation bank may be allowed when there are inadequate on-site mitigation opportunities.



Large wood accumulates on the beach at McCarthy Park on Swan Island, creating pools, cover and an inviting riparian edge.

- **Establish a mitigation bank for the North Reach.**

In order to provide the flexibility to conduct compensatory mitigation at an off-site location, and to ensure that the off-site locations are restored, maintained and managed in perpetuity, the City (and perhaps private entities) will establish a mitigation bank that will sell credits to applicants who are allowed to mitigate off site.

The mitigation bank (s) will use a science-based crediting and debiting system certified by the City to that will ensure that mitigation fully compensates for impacts to natural resources caused by development. This will help to ensure that no further loss of natural resource function is sustained in the North Reach.

The mitigation bank (s) will also be designed to accommodate mitigation required by state and federal agencies, and, if possible, accommodate restoration activities required by the Portland Harbor Natural Resource Trustees as compensation for past damages from contamination. Map #6: Watershed Health – Proposed Overlay Zones and Action Items identifies sites that can be included in the mitigation bank as off-site mitigation sites. However, Kelly Point Park and Cathedral Park can only be used for restoration by the City of Portland. Also see Appendix A: Action Agenda - Watershed Health for more information about these sites.

The City wants one or more mitigation banks to operate in the North Reach. A range of management options for mitigation banks - the bank are under consideration, including sole City ownership and management, management by the City in partnership with a for-profit entity, and management by the City in cooperation with a team of local and state agencies and non-profit entities, and a private bank. Accounting methods under consideration for a City certified mitigation bank follow accepted methods used by state and federal agencies to assess natural resource values and determine appropriate compensation for impacts to those values. The accounting system will track mitigation resulting from City requirements and separate from those required by others.

In Oregon and elsewhere in the country some mitigation sites include trails. The presence of a trail may reduce the natural resource function of the site and therefore result in fewer mitigation credits to sell but that should not prevent inclusion of a trail or viewpoints in mitigation sites in the North Reach. If an entity chooses to develop a mitigation bank in an area that is designated for a regional trail (depicted as stars on the zoning map), the mitigation bank must account for the trail. However, the trail design and alignment should reflect sensitivity to natural resources.

- **Develop a mitigation bank certification process**

Development of a mitigation bank is important to the implementation of the River Plan. The City will establish a certification process to ensure that banks operating in the North Reach can provide mitigation for the River Code. Any mitigation bank whether public or private will have to be certified by the City of Portland to provide credits for the River Plan.

OBJECTIVE #2. Enhance and restore watershed functionality within, and directly adjacent to the North Reach, in order to improve conditions for fish and wildlife, improve watershed health, and protect public health and safety.

Recommendations

▪ **Establish the River Restoration Program.**

A key component of the overall River Plan / North Reach is the establishment and implementation of a City program dedicated to natural resource restoration in the North Reach—the River Restoration Program. The mission of the program is to acquire, restore and manage in perpetuity, key sites for long term public benefits such as fish and wildlife habitat, water quality, and flood storage.

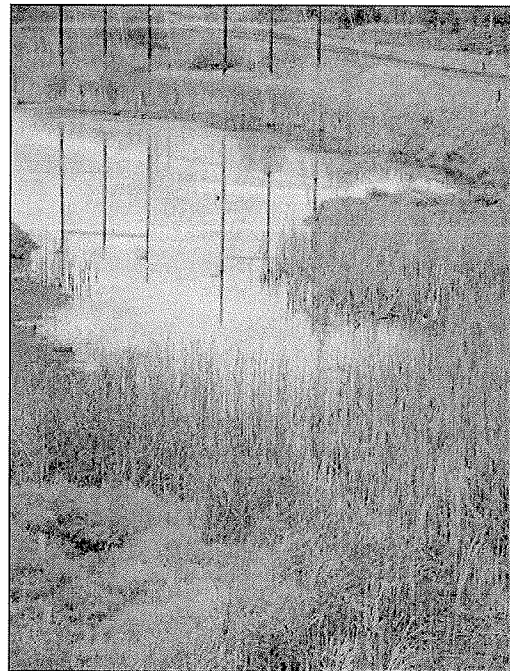
The key restoration sites that the program should focus on are shown on Map 6: *Watershed Health – Proposed Overlay Zones and Action Items*, and they are described in Appendix C: *Action Agenda*. The list of sites was developed during the River Plan process. North Reach stakeholders worked with River Plan staff to visualize a conceptual “landscape” plan for the North Reach, and as part of that work, the group identified restoration opportunity sites along the river and in the uplands. River Plan staff refined the list of sites in coordination with staff from the Bureau of Environmental Services and state and federal agencies.

River Plan staff have also developed rough cost estimates for site acquisition and restoration:

Acquisition:	\$39 - 103 million
Restoration:	<u>\$144 million</u>
Total:	\$183 - 247 million

Funding for the restoration program will come from numerous sources including fees in-lieu of meeting existing and proposed landscape and vegetation enhancement standards. Other revenue sources for program funding could include City investments in watershed health and grants from state and federal programs and foundations.

The restoration sites will be prioritized based on a number of factors once the restoration program is operational. The prioritization criteria include: the potential for ecological improvements; the cost of restoration; the extent of contamination; the cost and complexity of cleanup; and the willingness of the property owner to participate in the program. Restoration sites located on private property will be acquired from willing sellers as opportunities and funding become available. The list of sites shown in this plan should not be considered exhaustive. The River Restoration Program will evaluate additional opportunities for restoration where appropriate, and the program will be evaluated over time on its progress toward fulfillment of its mission.



A wetland in the Rivergate district provides habitat for sensitive species such as the western pond turtle.

- **Ensure enhancement of natural resource functionality through the application of a development standard aimed at increasing native vegetation in the North Reach.**

Enhancement and restoration of the natural conditions in the North Reach are goals of the River Plan, the River Concept, the River Renaissance Strategy, and Statewide Planning Goal 15. Enhancement of natural conditions is adopted City policy as part of the Willamette Greenway Plan, the Portland Watershed Management Plan, the Urban Forestry Management Plan and the Climate Action Plan. In response to these goals and policies, the City will apply a development standard that over time will result in 15 percent of the area in the River Overlay Zones being covered with native vegetation. This recommended development standard is similar to the greenway landscape standard that has been in place since 1987, however, it is more broadly applied to address concerns about the lack of adequate habitat in the North Reach.

This recommended development standard requires an applicant for a building or development permit to increase the amount of vegetative cover on their site or in the North Reach by choosing from among several options. These options include spending one percent of project value, or \$200,000, which ever is less, on planting vegetation, on an ecoroof or paying the City to plant vegetation on one of its river restoration sites.

The recommended vegetation standard is more flexible than the existing landscape standard because applicants for development permits will be able to comply with the requirement in a variety of ways:

- applicants will be able to count existing vegetation toward meeting the standard;
- new vegetation can be planted anywhere on the site rather than just within the greenway setback;
- ~~vegetation planted along the river bank or adjacent to existing natural resource area can reduce the total requirement to 10 percent or 5 percent; and~~
- the applicant will have the option to meet the standard by paying a fee-in-lieu of planting vegetation on-site. The payment will be directed to the River Restoration Program.

The code also provides incentives for planting on the riverbank or in an environmental overlay zone.

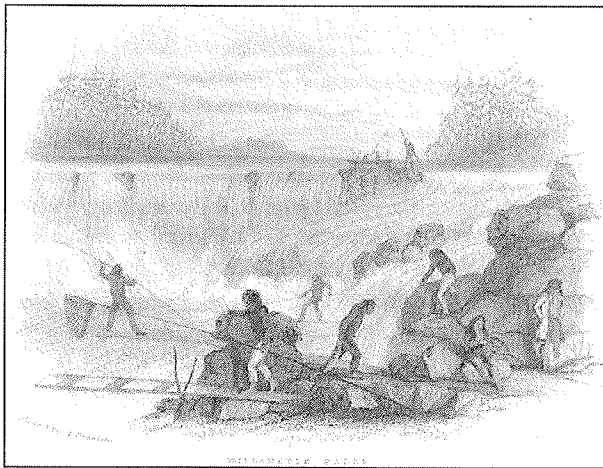
F. WORKING WITH OUR PARTNERS

The river's edge is critical to the regional economy, provides important fish and wildlife habitat, and is important for maintaining the health of the river and the watershed. In addition, it's a desirable location for transportation, recreation and residential living. The River Plan optimizes the use of this finite resource by working with stakeholders – our regulatory, community, and tribal government partners – to help preserve the valuable assets in the North Reach, optimize the use of the riverfront, and implement the recommendations in the River Plan.

Our regulatory partners are the local, state, and federal agencies that regulate many activities at the water's edge, working to protect, conserve, and restore the physical, chemical and biological integrity of the river as well as to protect the use of the river for navigation and recreation. For more information about the roles of these agencies, please see *Federal, State, and Local Regulations at the River's Edge*.

Some projects that take place below the Ordinary High Water Mark (OHWM) or that occur as part of a contaminated site cleanup fall under the authority of multiple jurisdictions. The recommendations in this section are intended to coordinate the regulatory processes while ensuring the regulations address City interests and policies, including goals for watershed health, access, and economic prosperity.

Our community partners include North Reach property owners, tribal governments, business representatives, advocacy groups, neighborhood associations, and interested citizens. River Plan recommendations in this section are designed to encourage continued education, organization, and discussion around North Reach issues.



This 1841 engraving shows Chinookan or Clackamas men fishing at Willamette Falls. (credit: University of Washington)

Native Peoples of the Willamette Valley

The Willamette (Walama) and Columbia rivers served as both highways and supermarkets for Native peoples, with a flourishing trade that supported villages throughout the basin and beyond. As settlers came to the Willamette Valley, conflicts arose. Eventually, a treaty was signed with the tribal governments that set aside land for reservations and gave ownership of the Willamette Valley to the United States. In signing this treaty, tribal governments reserved customary rights such as to fish "at usual and accustomed grounds and stations," the right to erect fish-processing sheds for drying their catch, and to hunt, gather and graze livestock on unenclosed lands. Those connections to the Willamette River remain strong.

Today, Portland is home to the ninth largest Native American population in the United States, with residents coming from tribes across the country.

OBJECTIVE 1. Improve regulatory efficiency for all activities below the OHWM.**Ordinary High Water Mark**

The U.S. Army Corps of Engineers (Corps) generally relies on one or more physical indicators to determine the OHWM at a given location, described as *"that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area."*

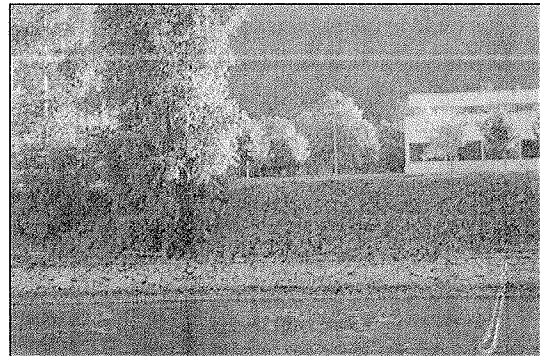
Oregon Statute defines the Ordinary High Water Line as *"that line on the bank or shore to which the high water ordinarily rises annually in season"* and includes a list of field indicators similar to the Corps'.

The riverbank and water below the OHWM is regulated by the City, state and federal government. Throughout the planning process, industrial stakeholders have suggested that the City's review of development below the OHWM is duplicative of state and federal evaluations, leading to differing determinations, lengthening the overall permitting process, and resulting in costly project redesign. In fact, the City's goals in reviewing development are broader than the regulatory mandate of the state and federal government.

Stakeholders from the environmental community and staff from several City bureaus believe that eliminating City review of development proposals below the OHWM would limit the City's ability to influence project design and minimize impacts to all affected fish and wildlife, and would not allow the City to address environmental interests and overall watershed health goals adopted by City Council that go above and beyond state and federal agency mandates.

These City goals include:

- Protecting properly functioning habitat conditions. To this end, the City limits detrimental impacts to watershed functions identified in the City's adopted natural resource inventories and Portland Watershed Management Plan
- Protecting riparian and aquatic habitats and species beyond those that the state and federal agencies protect (e.g. non-listed species)
- Assisting in the recovery of threatened and endangered species
- Ensuring that adequate mitigation is provided to compensate for unavoidable impacts to resource functions
- Ensuring that approved in-water development is consistent with City land use plans and zoning and does not affect the desired use of the upland portion of the site
- Protecting and improving groundwater and surface water quality
- Supporting river-dependent industrial uses in the North Reach



The Ordinary High Water Mark is a regulatory reference line that is frequently used to determine whether a project will be regulated by State and Federal agencies.

The City is interested in ensuring that development activities that occur below ordinary high water are reviewed in the context of City land use plans and the complete ecology of the area around the development site. City review ensures that the development will have the least detrimental impact on natural resources and functional values among all of the practicable alternatives, and that when development activities do occur, there is no net loss of resource function in the North Reach and that any lost resource function is fully replaced on the site or somewhere else in the North Reach.

The resources that the City cares about that occur below ordinary high water include open water, shallow water (0-20 feet), beaches, floodplain and flood areas, wetlands and ponds, and riparian vegetation.

- These resources: provide microclimate and shade function (regulate the temperature); provide stream flow moderation and water storage function; protect the river bank; control sediment, nutrients and pollution; keep the channel dynamic; provide food and organic inputs to the river; provide fish and wildlife habitat and habitat connectivity.
- While Federal and state regulations may nominally cover many of these resources, in practice their reviews only apply to discrete resources not all resources, and in limited circumstances. For example, state and federal regulators do not impose restrictions on floodplains that may be associated with an area below ordinary high water. These regulatory powers are delegated to the City. Only the City can connect those rules to impacts on fish, wildlife, overall watershed health and regional public safety, and represent the full suite of ecological interests. In addition, federal and state regulations and reviews are not proactive in preventing future threats or declines in watershed health, nor do they attempt to improve conditions. Rather they focus on preventing further degradation from existing conditions, usually for a limited site and for limited biological conditions.

Development can reduce the functionality of any facet of an area's natural resources (its ecology). A reduction in resource function will mean further loss of fish and wildlife species in the North Reach, and additional threats from natural hazards such as flooding and landslides. The City is interested in making sure that existing functionality remains in place as much as practicable and that lost resource function is fully replaced somewhere else on the site or somewhere else in the North Reach.

State and federal agencies focus more closely on biological systems, particularly listed species, and on jurisdictional habitats such as wetlands, and on navigation. All of these are evaluated against the development proposed at that time, but not the full context including the surrounding conditions, potential future development in the surrounding area or an applicant's future development plans. It is site and project specific and not integrated or based on an ecological perspective. Like the City, they also require that development avoid impacts, minimize impacts when avoidance isn't possible, and mitigate for lost resources. However, the extent to which the state or federal agencies will require an alternative design or an alternative location for the development can be limited by the species on which they focus. In the same way, mitigation will be limited to those features that the species use—which may not cover the full spectrum of resource functions and values listed above.

For example, an applicant may be able to make the case to the state and federal agencies that a particular dock and bank stabilization design does not affect salmon habitat, or that the impacts can be mitigated by improving salmon habitat somewhere else, even though the bank design includes rip rap (rocks) as stabilization, thereby eliminating an existing riparian area with significant habitat value. In this case, the City would want to see alternative locations that have less impact on the riparian area evaluated and that the mitigation plan includes mitigation for the lost riparian resources. In addition, the proposal may impact flood storage or channel dynamics, but the state and federal agencies may not ask for mitigation for those functions. The City will ensure that all functions are replaced in the North Reach.

In another example, the state and federal agencies may permit a development activity that reduces river access on a site. The state and federal agencies do not look at the impact a development may have on future use of the site for river-dependent or river-related activities. The City has an interest in ensuring that alternative locations or designs that preserve river access are evaluated and used if practicable.

The following table compares the interests of the state and federal agencies with the City interests in key areas of ecological function as it relates to permitting below the ordinary high water mark.

<u>Ecological Function</u>	<u>State</u>	<u>Federal</u>	<u>City of Portland</u>
<u>fish/wildlife habitat</u>	<u>Focuses on wetlands and waters of the state with stronger focus on designated "essential fish habitat," water quality, and contamination. Must provide for fish passage at all times.</u>	<u>Focuses on listed species and their specific habitat requirements, generally limited to designated "critical habitat." Also looks at dredging in navigable waters and significant contamination issues.</u>	<u>Considers all native fish and wildlife species and their habitat requirements</u>
<u>bank functions</u>	<u>Considers removal and fill in a wetland or water of the state that may be connected to a stream/river bank, and in the context of contamination and clean up.</u>	<u>Addresses bank functions in context of designated critical habitat</u>	<u>Addresses bank functions in relation to a diversity of fish and wildlife species as well as other city goals such as flood protection, access.</u>
<u>riparian vegetation</u>	<u>Considers riparian vegetation only if there are state listed species (birds, mammals) on state lands, or as it relates to contamination containment.</u>	<u>Considers in-water impacts; the relationship between in-water and riparian areas is only considered relative to listed species in non-binding recovery plans.</u>	<u>Considers the relationship of impacts to riparian vegetation and in-water conditions/ how impacts in-water may affect riparian habitat, hydrologic function and wildlife connectivity</u>

In addition, development that occurs below the OHWM usually has impacts, or is physically attached to, development above the OHWM. It would be extraordinarily difficult to limit the City's review to only the portion of the development that occurs above the OHWM. Additionally, City development review staff have extensive knowledge of local conditions and circumstances that state and federal agencies may not have or do not consider.

For all of these reasons, the River Plan recommends that the City continue to review development proposals that have impacts below the OHWM, but also suggests process improvements to improve regulatory efficiency for such proposals.

Recommendations

- **Create an optional Willamette River Early Project Review process** for projects in the Portland Harbor that require approval from city, state and federal resource agencies. This would involve a City/State/Federal coordination process that provides private applicants with the option of participating in a facilitated multi-jurisdictional pre-application meeting and permit coordination process. This voluntary ~~pilot~~ process is being created to provide a venue for early information sharing and collaborative problem-solving between the applicant and regulatory agencies.

Flowchart 1 shows the legal timeframes for the City/state federal permit review processes. It also identifies potential interagency coordination points.

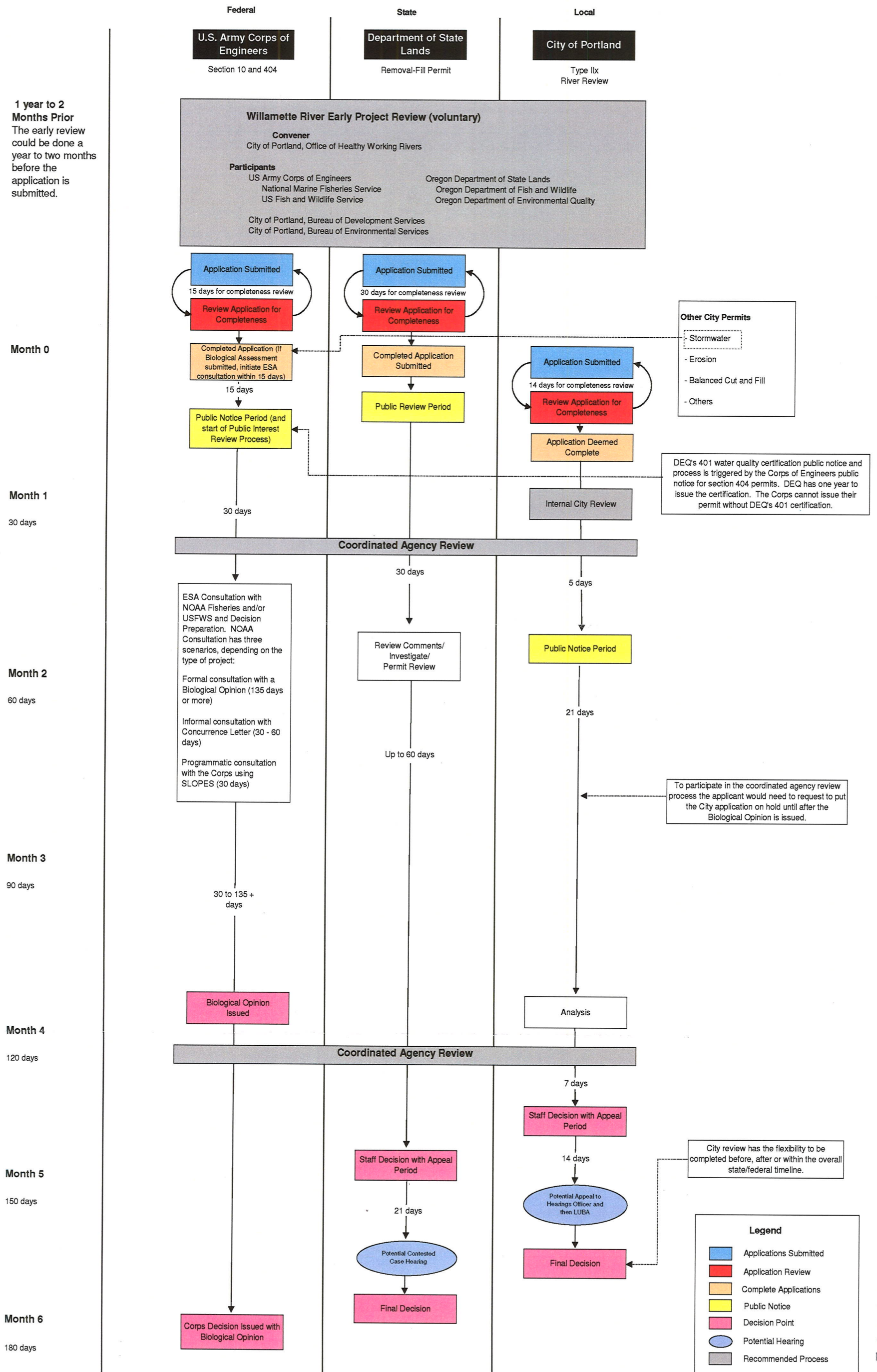
- **Train BDS planners** assigned to Willamette River permitting to consider industrial issues, interjurisdictional permitting and clean-up of contaminated sites.

- **Assign and fund a BES staff person to act as a scientific consultant to BDS as needed during the City river review process.** This will be especially important for reviews below ordinary high water. This service could be formalized through an inter-bureau agreement as needed.
- **Ensure that the City's River Review land use decisions and conditions of approval do not conflict with or duplicate decisions made by the Department of State Lands, National Oceanic and Atmospheric Administration's National Marine Fisheries Service, or the U.S. Army Corps of Engineers.** See Volume 1B: *Code Amendments and Zoning Maps* for specific language.

Flowchart 1

River Plan / North Reach Recommended Draft: Proposed Coordinated Review Process for Projects Below the Ordinary High Water Mark

Note: The timelines listed are legal maximums and are not meant to represent the time it would take to process any given permit application.



OBJECTIVE 5: Evaluate the implementation of the River Plan / North Reach

To help ensure the effective long-term implementation of the River Plan / North Reach, the City plans to proactively evaluate its implementation with assistance from a multi interest stakeholder group, including people who represent neighborhoods, industry, the environment and recreation.. Each year the Office of Healthy Working Rivers will deliver a written report to the Planning Commission and City Council that will include feedback on aspects of the plan that are ambiguous or unintended, and on the overall effectiveness of the plan in achieving its goals. The report may inform future code or program amendments.

Recommendations

- Establish a multi interest North Reach Advisory Committee to help the City evaluate implementation of the River Plan / North Reach, including progress on developing a mitigation bank. Provide an annual report to Planning Commission and City Council.

1. ECONOMIC PROSPERITY

B: Additional Studies and Projects				
<i>Project ID</i>	<i>Project</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
EP1	Conduct a hydraulic/ hydrologic analysis evaluating implications of eliminating balanced cut and fill requirements.	BPS and BES	Start within 2 years	Priority
EP2	Develop a strategy to improve freight rail funding and service.	tbd	tbd	Priority
EP3	Implement the Harbor ReDI (Harbor Redevelopment Initiative) and develop strategies to address brownfield issues citywide.	PDC	Complete within 1 – 5 years	Priority
EP4	Prepare a small shipper rail strategy	lead org tbd, OHWR	tbd	Priority
EP5	Investigate the feasibility of adding a regional rail yard	lead org tbd, OHWR	tbd	Priority
EP6	Secure long-term transportation funding for upgrades, modifications, improvements to street, rail, shipping facilities.	PBOT	tbd	Priority
EP7	Develop a funding source for small projects that address freight deficiencies or improve site access and circulation.	PBOT	tbd	Priority
EP8	Evaluate alternatives and recommend a stormwater rate structure for large-site industrial areas	BES	tbd	Priority
EP9	North Willamette Crossing Study (2004 RTP#4016) - Increase priority in Regional Transportation Plan to study need for new US 30 to Rivergate bridge.	Metro	tbd	Priority

C: Potential Funding Sources			
	SOURCE	USE OF SOURCE	OPPORTUNITIES/ LIMITATIONS
LOCAL	General Fund <i>Funds collected from property taxes.</i>	Planning, capital and restoration projects	General funds are discretionary and allocated by the City Council among competing needs.
	Utility Rates <i>Funds collected from sewer and water bills.</i>	Sanitary sewer, Stormwater, environmental restoration and pollution control services.	Funds generated from rates can only be used for actions that are directly related to the utility service. Limited public support for increasing Portland's sanitary/stormwater rates, which are already among the highest in the country. Voluntary rounding up on utility bills has been identified as a funding strategy for the Grey to Green program.

2. WATERSHED HEALTH

The following Watershed Health action items implement the objectives found in the main part of Volume 1A. The first section lists capital improvement projects that could be implemented by the City or another entity. The projects are shown on Map 6. The second section lists additional studies and projects that the City will undertake and, finally, the third section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects in the following table based on the ranking criteria below. All of the projects have high ecological value for either aquatic or terrestrial species and will provide significant ecological improvements to the Lower Willamette when completed. Some of the project sites have existing habitat that needs protection and enhancement, while other projects such as river confluence areas, are degraded but provide the most important aquatic habitat for fish recovery. These rankings do not distinguish between those different ecological benefits. It is anticipated that lead organizations will try to act on the higher ranked action items first, but they will also take advantage of implementation opportunities as they arise, regardless of the ranking listed in this action agenda.

High

- can be done with existing funding or funding likely to be secured,
- there is a constituency and a lot of momentum behind the project, or
- contamination ranks 1 or 2

Medium

- funding not yet secured,
- there is a constituency and some momentum behind the project, or
- contamination ranks 2 or 3

Low

- funding not secured,
- there may or may not be momentum behind the project,
- lead organization is not yet identified, or
- contamination rank 4

Additional Studies and Projects			
<i>Project</i>	<i>Lead Org</i>	<i>Timeline</i>	<i>Ranking</i>
Develop strategies to help increase tree canopy in the North Reach.	BPS, BES, Parks	Ongoing	High-Medium
Develop a River Restoration Program for the North Reach funded by development fees, the City's general fund and other sources.	BES, BPS	Complete within 1 year	High
Submit River Plan to advance compliance with Metro Title 3 and 13, as well as State and Federal mandates.	BPS	Upon plan adoption	High
Inpire Establish guidelines for low impact and eco industrial design through development of designs suitable for the North Reach.	BPS, OHWR	Start within 2 years	Medium
Develop regulations for the application of pesticides and herbicides in the river overlay zones.	BPS	Start within 2 years	Medium
<u>Develop a certified mitigation bank to accept mitigation resulting from the River Plan / North Reach. This includes development of the mitigation banking instrument and restoration of site that can generate mitigation credits.</u>	<u>OHWR, BES, BPS</u>	<u>Provide a progress report to City Council within 2 years.</u>	<u>High-Medium</u>
<u>Develop a mitigation bank certification process.</u>	<u>BES, OHWR, BPS</u>	<u>Complete within 1 year</u>	<u>High</u>
<u>Direct BES and OMF to establish an effective low interest loan financing program for ecoroofs.</u>	<u>OMF, BES</u>	<u>Complete within 2 years</u>	<u>Medium</u>
<u>Direct BES to develop ecoroof designs that provide habitat function in addition to stormwater function.</u>	<u>BES</u>	<u>Complete within 2 years</u>	<u>Medium</u>
<u>The Bureau of Environmental Services should convene a meeting with property owners who live along the bluff in N. Portland to provide information about how to safely plant and maintain vegetation on steep slopes.</u>	<u>BES</u>	<u>Complete within 2 years</u>	<u>High</u>

3. ACCESS

B. Additional Studies and Projects				
<i>Project ID</i>	<i>Area</i>	<i>Project</i>	<i>Lead Organization</i>	<i>Ranking</i>
A12	Cathedral Park	Implement the City Council endorsed Cathedral Park Master Plan.	Portland Parks	Medium
A13	Mocks Crest Trail	Study the feasibility of when and how to design and build a bicycle/pedestrian trail connecting N. Willamette Blvd. and N. Basin on Swan Island.	Portland Parks	Low
A14	Between N. Port Center Way on Swan Island and N. River Street in Lower Albina	Complete the North Portland Greenway Master Plan. Include a bicycle/pedestrian connection between Swan Island and the Lower Albina industrial area in the planning. Build on the right-of-way design alternatives identified in the Swan Island/Lower Albina Transportation Feasibility Study conducted for the River Plan by Alta Planning and Design.	Portland Parks	High
A15	Railroad Bridge	Conduct a study to evaluate the feasibility of building a bicycle/pedestrian facility adjacent to the BNSF Railroad Bridge (design similar to the Esplanade Trail adjacent to the Steel Bridge).	PBOT	Low
A16	Between the Railroad Bridge and the City Limits North of Linnton	Conduct a study to evaluate the feasibility of building an off-street bicycle/pedestrian trail between the BNSF railroad bridge and the city limits north of Linnton. Options to explore include building a bicycle/pedestrian rail-with-trail within or adjacent to the Portland and Western rail corridor and cantilevering a separated bicycle/pedestrian path adjacent to NW. St. Helens Rd.	Portland Parks	Low
A17	Willamette River North Reach	Work with Metro to include all segments of the near-term and long-term Willamette Greenway Trail alignment in the Regional Trail Plan.	Portland Parks	High
<u>A18</u>	<u>Willamette River North Reach</u>	<u>Provide signage along the greenway trail with a distinctive graphic framework to inform the public about the Willamette River, the greenway trail, restoration activities and Portland's working harbor.</u>	<u>OHWR, Portland Parks</u>	<u>Medium-High</u>
<u>A19</u>	<u>Linnton</u>	<u>Conduct study exploring alternative designs for community access in Linnton along the NW 107th Ave right of way from Highway 30/St. Helens Road to the riverbank. The connection should be compatible with rail and industrial operations, and the study should include evaluation of an elevated connection.</u>	<u>Portland Parks, PBOT</u>	<u>Medium</u>

5. WORKING WITH OUR PARTNERS

The following Working with our Partners action items implement the objectives found in the main part of Volume 1A. The first section lists studies and projects that the City will undertake. The second section lists potential funding sources to accomplish the actions.

Ranking

The City ranked the projects based on the following ranking criteria. It is anticipated that lead organizations will try to act on the higher ranked action items first, but they will also take advantage of implementation opportunities as they arise, regardless of the ranking listed in this action agenda.

High

- Can be done with existing funding or funding likely to be secured, or
- there is a constituency and a lot of momentum behind the project

Medium

- funding not yet secured, or
- there is a constituency and some momentum behind the project

Low

- funding not secured,
- there may or may not be momentum behind the project, or
- Lead organization is not yet identified

B: Additional Studies and Projects				
Project ID	Recommendation	Lead Org	Timeline	Ranking
WP1	Create an optional Willamette River Early Project Review pilot process for projects in the Portland Harbor that require approval from city, state and federal resource agencies.	OHWR, BDS	Start within 4 years upon plan implementation	High
WP2	Train BDS planners who are assigned to Willamette River permitting in industrial issues, interjurisdictional permitting and clean-up of contaminated sites.	OHWR, BPS, BDS	Start within 1 year	High
WP3	Assign and fund a staff person at BES to act as a scientific consultant to BDS as needed during the City river review process. This service could be formalized through an inter-bureau agreement.	BES, BDS	Start within 1 year	High
WP4	Create a guidance document that clearly states the City's substantive requirements for cleanup activities. Work with DEQ to distribute the document.	BPS, OHWR, BDS	Complete within 1 year	High
WP5	Work with DEQ to identify a clearly defined role for City involvement in clean-ups that implement the River Plan / North Reach's substantive requirements.	BDS, OHWR, BES	Complete prior to code implementation	High
WP6	Continue to comment on DEQ and EPA cleanup activities. Allocate additional funding as needed.	BDS, BES, OHWR	Ongoing	High

B: Additional Studies and Projects (cont.)				
Project ID	Recommendation	Lead Org	Timeline	Ranking
WP7	Provide the River Plan / North Reach and other city policy and code documents to the EPA and DEQ to inform them of City goals and standards for the Willamette River during preparation for the Superfund clean-up.	BPS, BES, OHWR, City Attorney	Upon plan adoption	High
WP8	Continue soliciting and coordinating City comments on the Portland Harbor Superfund cleanup activities.	BES	Ongoing	High
WP9	Increase the frequency and depth of communication with Tribal governments.	Mayor's Office, OHWR	Ongoing	High
WP10	Evaluate alternatives to improve Ensure communication and collaboration among river-related local governments, agencies, organizations, industries and citizens in the Lower Willamette River.	OHWR, BES	Start within 2 years	Medium
WP11	Work with other agencies and organizations to establish and maintain engagement an education initiative focused on the North Reach Neighborhoods.	OHWR, other city agencies	Start within 6 months 2 years	Medium High
WP 12	Develop a North Reach Advisory Committee to evaluate implementation of the River Plan / North Reach	OHWR	Start within 1 year	High

River Plan / North Reach

Map #2:
Proposed Overlay Zones

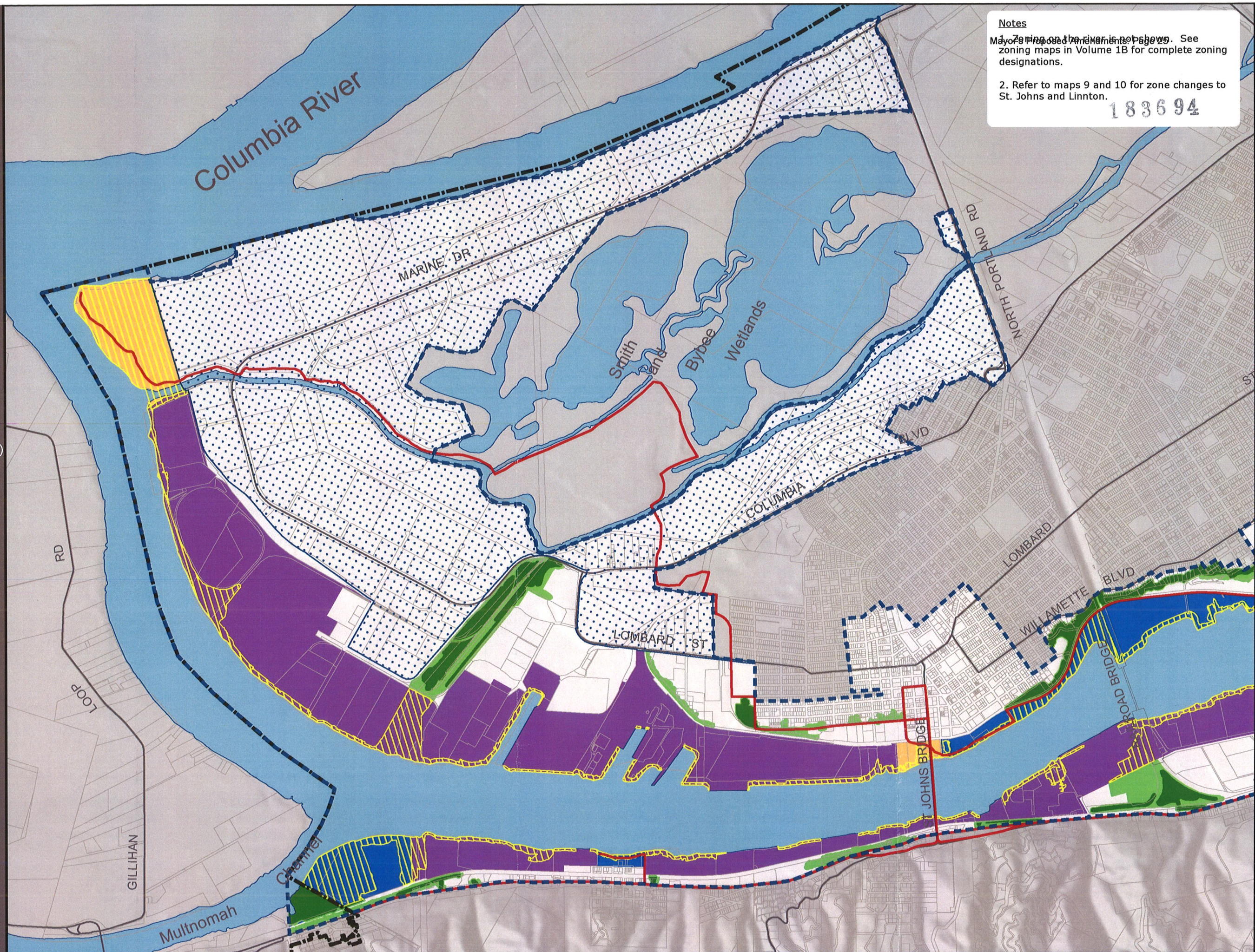
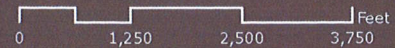
Sheet #1 of 2

legend

- areas not evaluated for overlay zone changes
- north reach boundary
- trail alignment
- Portland city boundary
- river overlay zones
 - river environmental (e)
 - river industrial (i)
 - river recreational (r)
 - river general (g)
- environmental overlay zones
 - environmental conservation (c)
 - environmental protection (p)

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Geographic Information System

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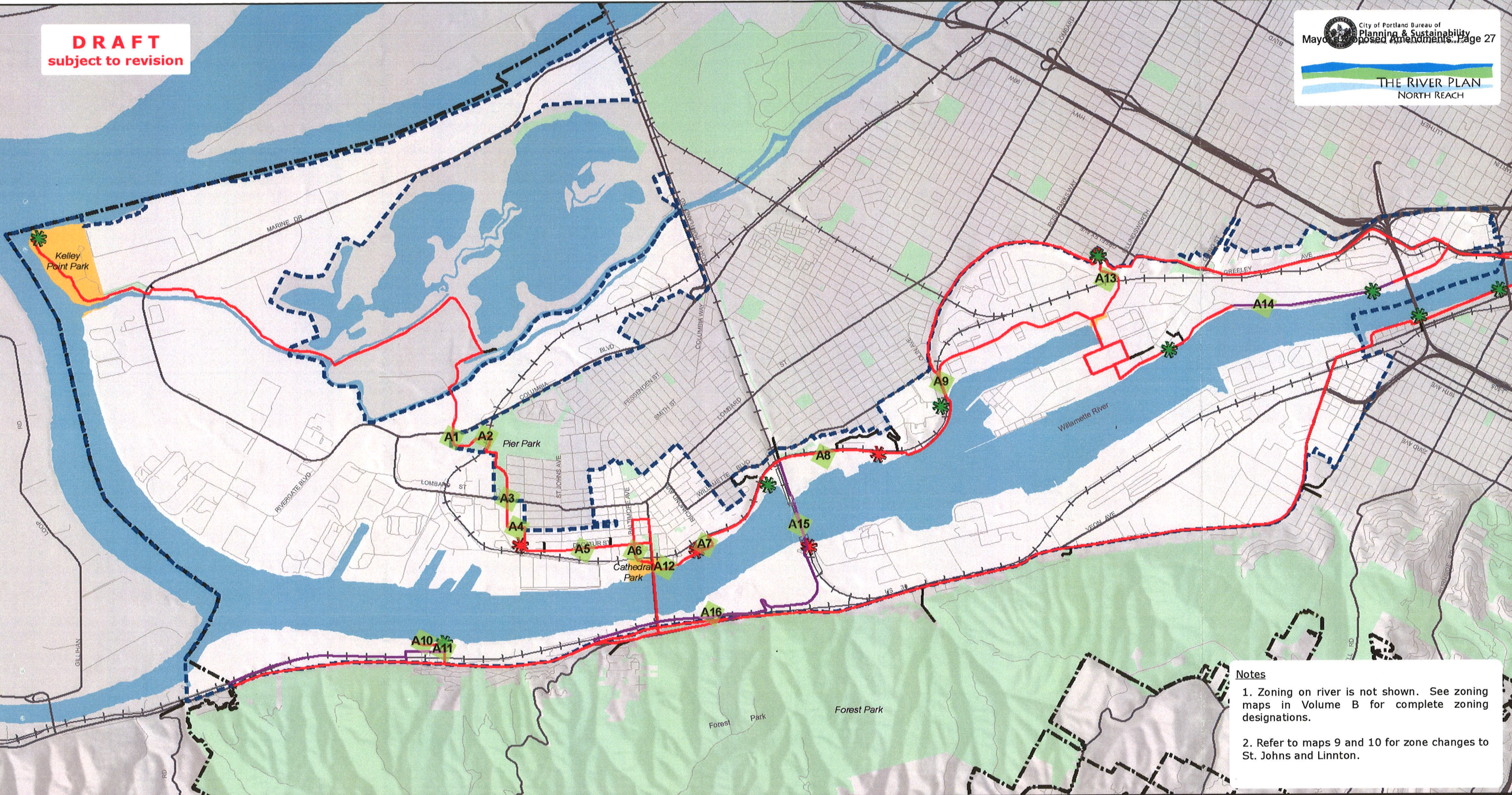
Notes
1. Zoning proposed in this map is shown. See zoning maps in Volume 1B for complete zoning designations.
2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.
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 Proposed Amendments Page 27

THE RIVER PLAN
NORTH REACH

Map #8: Access - Proposed Greenway Trail, Viewpoints & Action Items



Notes

1. Zoning on river is not shown. See zoning maps in Volume B for complete zoning designations.
2. Refer to maps 9 and 10 for zone changes to St. Johns and Linnton.

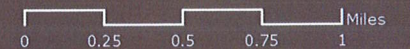
legend

- north reach boundary
- Portland city boundary
- recommended greenway viewpoints
- existing greenway viewpoints to remain
- river recreational overlay zone (r)
- trail access locations
- access action items
- greenway trail alignment**
- recommended greenway trail
- potential greenway trail (needs further feasibility study)

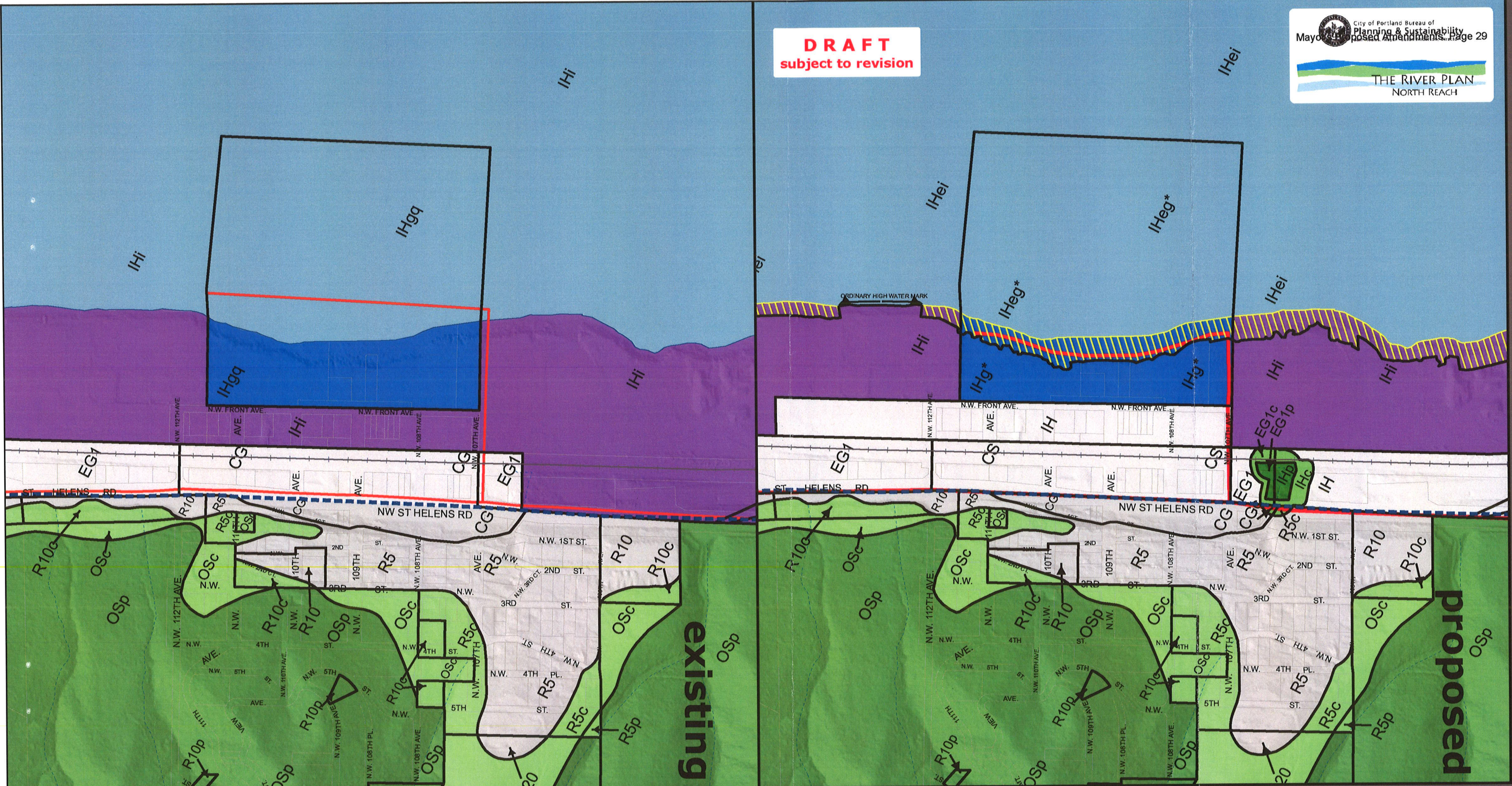
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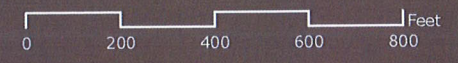


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subject to revision



- legend
- greenway/river overlay zones
 - environmental conservation (c)
 - surface stream
 - river environmental (e)
 - environmental protection (p)
 - greenway trail
 - river industrial (i)
 - zoning boundaries
 - north reach boundary
 - river recreational (r)
 - IHeg*** zoning designations
 - river general (g)

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Part B. Amendments to Volume 1B

The following pages are replacement pages for Volume 1B. The code and commentary language that has been amended is shaded. Language that changed after the February 2010 version of the draft amendments is shown in a lighter shade.

This is a new chapter. For ease of readability the text is not underlined.

**CHAPTER 33.475
RIVER OVERLAY ZONES**

Sections:

- 33.475.010 Purpose
- 33.475.020 River Overlay Zones
- 33.475.030 Where These Regulations Apply
- 33.475.040 Relationship to Other City, State and Federal Reviews
- 33.475.060 Supplemental Permit Application Requirement
- River Industrial Overlay Zone
 - 33.475.100 Use Regulation
 - 33.475.110 Nonconforming Uses
 - 33.475.120 Vegetation Enhancement Standard
 - 33.475.130 IG2 Minimum Landscape Area
 - 33.475.140 Land Divisions and Property Line Adjustments
- River General Overlay Zone
 - 33.475.200 Use Regulations
 - 33.475.210 River Setback
 - 33.475.220 Vegetation Enhancement Standard
 - 33.475.230 IG2 Minimum Landscape Area
 - 33.475.240 Property Line Adjustments
- River Recreational Overlay Zone
 - 33.475.300 Use Regulation
 - 33.475.310 River Setback
 - 33.475.320 Vegetation Enhancement Standard
 - 33.475.330 IG2 Minimum Landscape Area
 - 33.475.340 Property Line Adjustments
- River Environmental Overlay Zone
 - 33.475.400 Use Regulations
 - 33.475.405 Environmental Report
 - 33.475.420 Review Procedure
 - 33.475.430 Exemptions and Development Standards
 - 33.475.450 Corrections to Violations of River Environmental Overlay Zone Development Standards
- Clean Up of Contaminated Sites
 - 33.475.460 Removal or Remediation of Hazardous Substances

33.475.010 Purpose

The River Overlay zones generally promote the protection, conservation, restoration, enhancement and maintenance of the economic, natural, scenic, and recreational qualities of lands along the north reach of the Willamette River. This purpose is achieved by applying regulations that control development of land, change of use and intensification of use, and reflect the desired character of the north reach of the Willamette River—a character that includes a prosperous working harbor, a healthy river and watershed, vibrant riverfront neighborhoods, and access to and along the river. The River Overlay zones also implement the City's responsibilities under ORS 390.310 to 390.368 and Metro's Urban Growth Management Functional Plan for the north reach of the Willamette River. This chapter includes the substantive requirements that apply to the removal and remediation of hazardous substances.

Commentary

33.475.020 River Overlay Zones

With the exception of one new overlay zone, the names and general purpose of the River Overlay zones are the same as their corresponding Greenway Overlay zones. The River Industrial overlay zone does not exist outside of the North Reach, so that zone will live only in this chapter (33.475, River Overlay Zones). The River Water Quality zone and the River Natural zone are being replaced in the North Reach by the new River Environmental overlay zone, therefore those former overlay zones will not exist in the North Reach or this chapter. The River General and the River Recreational overlay zones will exist in the North Reach and along the rest of the river reaches.

In order to limit confusion about which Zoning Code chapter to reference, maps and code language are used to delineate the separate boundaries of the North Reach River Overlay zones and the Greenway Overlay zones (see maps 475-1 and 440-1). An asterisk (*) has been added to the zoning map symbols for the River General overlay zone and the River Recreational overlay zone that exist in the North Reach to further identify which chapter applies to those zones.

The River Environmental overlay zone is a new overlay zone and has been applied to high and medium ranked resources identified in the *Willamette River Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2009)*. The River Environmental overlay zone applies in combination with one of the other River Overlay zones and has regulations similar to Portland's existing environmental conservation zone.

33.475.030 Where These Regulations Apply

This section clarifies that the regulations in this chapter apply to activities that occur on the land and in the water. This section also references a map that shows the area within which the River Overlay zones and regulations apply. A corollary map has been added to 33.440, Greenway Overlay Zones, delineating the area within which the Greenway Overlay zoning code applies. This section describes which regulations apply in each overlay zone, and which regulations apply to the removal and remediation of hazardous substances.

This is a new chapter. For ease of readability the text is not underlined.

33.475.020 River Overlay Zones

- A. Purpose.** The River Overlay zones implement the land use pattern identified in the River Plan/North Reach. There are four River Overlay zones each with their own purpose:
1. River Industrial. The River Industrial overlay zone encourages and promotes the development of river-dependent and river-related industries, and strengthens the economic viability of Portland as a marine shipping and industrial harbor.
 2. River General. The River General overlay zone allows for uses and development that are consistent with the base zoning and allows for public use and enjoyment of the waterfront.
 3. River Recreational. The River Recreational overlay zone encourages and promotes river-dependent and river-related recreational uses with a variety of types of public access to and along the river.
 4. River Environmental. The River Environmental overlay zone protects, conserves and enhances important natural resource functions and values while allowing environmentally sensitive development. The River Environmental overlay zone applies to specific natural resource areas identified in a detailed study titled Willamette River Natural Resources Inventory; Riparian Corridors and Wildlife Habitat (2008). This overlay zone applies in combination with one of the other River Overlay zones.
- B. Map symbols.** The River Overlay zones are shown on the official zoning maps with the following symbols:

<u>Overlay Zone</u>	<u>Map Symbol</u>
River Industrial	i
River General	g*
River Recreational	r*
River Environmental	e

33.475.030 Where These Regulations Apply

The regulations of this chapter apply to the land and the water within the Willamette River North Reach overlay zone boundary shown on Map 475-1 and designated on the Official Zoning Maps with the River Industrial, River General, River Recreational and River Environmental overlay zones. The regulations of this chapter do not apply to the River General and River Recreational zones within the Willamette Greenway Overlay zone boundary shown on Map 440-1. See Chapter 33.440, Greenway Overlay Zones for regulations that apply to the River General and River Recreational zones within the Willamette Greenway Overlay zone boundary. The regulations of this chapter apply as follows:

- A.** The regulations of sections 33.475.010 through .060 apply to all sites in the River Overlay Zones
- B.** The regulations of sections 33.475.100 through .140 apply to sites in the River Industrial overlay zone.

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- C. The regulations of sections 33.475.200 through .240 apply to sites in the River General overlay zone.
- D. The regulations of sections 33.475.300 through .340 apply to sites in the River Recreational overlay zone.
- E. The regulations of sections 33.475.400 through .450 apply to sites in the River Environmental overlay zone.
- F. The regulations of section 33.475.460 apply to actions taken to remove or remediate hazardous substances. In this case, the actions are exempt from all of the other regulations in this chapter.

33.475.040 Relationship to other City, State and Federal Reviews

In addition to meeting the requirements of this Title, other City regulations, such as Title 10 Erosion Control, may apply to development within the River Overlay zones. Development may also require the approval of the Division of State Lands and the U.S. Army Corps of Engineers. City approval of uses or activities pursuant to this chapter does not imply compliance with other chapters of Title 33, other City regulations, or the regulations of state and federal agencies. Approval by other agencies does not imply approval by the City of Portland.

33.475.060 Supplemental Permit Application Requirement

- A. **When this requirement applies.** The information specified in subsection B is required when a permit for development or exterior alteration in any of the river overlay zones is reviewed for compliance with this chapter. The supplemental information specified in subsection C is required when a permit for development or exterior alteration in the River Environmental overlay is reviewed for compliance with this chapter.
- B. **Top of Bank.** If the site has river frontage, the applicant must provide a site plan depicting the top of bank of the Willamette River, and the structures and topographic contours referenced to determine the top of bank. The site plan depicting the top of bank must be drawn accurately to scale, and be suitable for reproduction on paper no smaller than 8.5 x 11 inches and no larger than 36 x 48 inches. The scale of the drawing must be between 1 inch = 50 feet, and 1 inch = 10 feet. Ground elevations must be shown by contour lines at 2-foot vertical intervals. See Section 33.910.030 for more information on top of bank. Top of bank information is not required for sites in the river industrial overlay zone that do not have any river environmental overlay zoning.
- C. **Additional information needed within the River Environmental overlay.** The following additional information is required for building or development permit applications that are reviewed for compliance with the standards of the River Environmental overlay. The information in paragraphs 1 and 2 must be submitted with permit application plans. Submission of the information in paragraph 3 is optional.

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1. An existing conditions site plan including:
 - a. Location of River Environmental overlay zone lines on the site;
 - b. Outline of any existing development, including existing utility locations, paved areas, river bank stabilization treatments, and buildings;
 - c. Location of any wetlands or water bodies on the site or within 50 feet of the site. Indicate the location of the top of bank, centerline of stream, ordinary high water, or wetland boundary as appropriate;
 - d. Trees must be identified as follows:
 - (1) The size and species of trees that are 4 inches or greater in diameter that are within the area where ground disturbance or vegetation removal will occur, or have crown cover that overlaps that area, must be indicated on the site plan; and
 - (2) Trees outside of the area where ground disturbance and vegetation removal will occur may be shown as general crown cover with an indication of species composition.
 - e. Topography shown by contour lines at 2 foot vertical contours in areas of slopes less than 10 percent and at 5 foot vertical contours in areas of slopes 10 percent or greater.
2. A proposed development plan including:
 - a. Outline of the proposed project area, including all areas of ground disturbance, vegetation removal, grading, new structures, new paving, new river bank stabilization treatments, any proposed utility work, and proposed mitigation areas;
 - b. Location and description of all proposed erosion control devices;
 - c. Stormwater management facilities; and
 - d. A landscaping plan indicating the size, species, and location of all vegetation to be planted.
3. Photographs of the site are not required but are encouraged to supplement the existing conditions site plan.

Commentary

33.475.110 Nonconforming Uses

The regulations in this section apply to situations where the primary use is not river-dependent or river-related and is located on a riverfront site in the River Industrial overlay zone. When this situation occurs, the nonconforming use can continue and the use can change to a conforming use (i.e. one that is river-dependent or river-related). Both of these provisions are consistent with the regulations of 33.258, Nonconforming Situations.

To change the nonconforming use to another non-river-dependent or non-river-related use, the applicant will be required to go through a River Review rather than the Nonconforming Situation Review that is typically required through 33.258, Nonconforming Situations. In order to meet the approval criterion for River Review, the site will have to be deemed unsuitable for a river-dependent or river-related use.

The nonconforming use will be allowed to expand within the boundary of the property lines as they exist on the day the River Overlay zone chapter goes into effect. The expansion will not be subject to Nonconforming Situation Review. The elimination of the review supports the employers and existing uses in the working harbor. In addition, the approval criteria for Nonconforming Situation Review are not relevant because they do not address uses that are nonconforming because they are not river-dependent or river-related.

Commentary

33.475.120 Vegetation Enhancement Standard

In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, an applicant for a building or development permit will be responsible for increasing the amount of vegetative cover on their site or in the North Reach by choosing to meet one of three options:

1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation. The vegetation planting area must meet the planting area standards described in subsection E;
2. Spend an amount equal to one percent of project value or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet Stormwater Management Manual guidelines; or
3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be spent on planting vegetation on one of the City's river restoration sites.

The amounts to be spent (one percent or \$200,000, whichever is less) has been recommended as a starting point in light of the current economic situation. Planning Commission recommends that the amount increases to two percent, or \$200,000, once the economy recovers from the current recession.

In order for the standard to have an end point (i.e. a point at which the spending or paying of one percent of project value is no longer required), the requirements include two types of caps—an on-site vegetation cap, and an off-site payment cap:

1. On-site vegetation cap. Once an applicant can show that 15 percent of their site is vegetated, the vegetation enhancement standard will be met. Vegetation planted on the riverbank will count at a ratio of 3:1; vegetation planted in or adjacent to the river environmental overlay zone will count at a ratio of 1.5:1; and vegetation on an ecoroof will count at a ratio of .5:1;
2. Off-site payment cap. Once an applicant can show that they have paid an amount equal to the cost for the City to plant vegetation in an area equal in size to 15% of their site, the vegetation standard will be met.

The City estimates that it will cost \$6.70 per square foot to plant and maintain vegetation in the North Reach. This is a preliminary estimation, and River Plan staff will work with the Bureau of Development Services to finalize the cost estimate prior to the implementation of this plan. The estimation quoted here was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be \$1.15. With a 90% management fee the estimate is increased to \$2.19. The unit cost for floodplain restoration is \$3.00. With a 90% management fee the estimate is \$5.70. The average of \$2.19 and \$5.70 is \$3.95. The cost for acquisition is estimated to be between \$3.00 and \$8.00 per square foot, with an average of \$5.50. Only a portion of the cost of acquisition will be recovered and therefore acquisition has been set at \$2.75. The total cost is the sum of \$3.95 and 2.75, or \$6.70/square foot.

This is a new chapter. For ease of readability the text is not underlined.

33.475.120 Vegetation Enhancement Standard

- A. Purpose.** The vegetation enhancement standard is intended to increase the quality and quantity of vegetative cover in the North Reach. Enhancing vegetation in the North Reach will improve the natural qualities of lands along the Willamette River Greenway, increase the quality and quantity of riparian and wildlife natural resources and functional values, increase wildlife habitat connectivity, and improve water quality and other watershed health conditions. This standard is not intended to provide mitigation for impacts to the natural qualities of the Willamette River Greenway from development, but rather improve natural conditions overall.
- B. When the standard applies.** The vegetation enhancement standard applies to new development and exterior alteration within the River Overlay zones.
- C. Vegetation enhancement standard.** The applicant must meet one of the following options.
1. Option 1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation on an area of the site that is within the River Overlay zones. The vegetated area must meet the planting area standards of Subsection E, below. Project value is determined based on Subsection F, below;
 2. Option 2. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria*. Project value is determined based on Subsection F, below; or
 3. Option 3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be directed to the River Restoration Fund and will be spent on planting vegetation on a City-owned site in the North Reach. Project value is determined based on Subsection F, below.
- D. Cap.** The following caps apply. The vegetation enhancement standard will be met when one of the caps is met:
1. On-site vegetation cap.
 - a. The amount of on-site vegetation required to be planted is capped at 15 percent of the total site area that is within the River Overlay zones. Once 15 percent of the total site area within the River Overlay zones is vegetated, the applicant is no longer required to spend one percent of project value coming into compliance with the vegetation enhancement standard;

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- b. Each square foot of vegetation planted within or adjacent to the river environmental overlay zone counts as 1.5 square feet toward the cap when the vegetated area meets the planting area standards of Subsection E, below;
- c. Each square foot of vegetation planted riverward of the top of bank counts as three square feet toward the cap when:
 - (1) The average slope of the river bank is not greater than 20 percent (1:5). Slopes greater than 20 percent may be retained within the root zones of existing trees over 10 inches in diameter, or as necessary to make a stable 1:2 transition at boundary of the vegetated area. The river bank is the area between the ordinary high water mark and the top of bank; and
 - (2) The planting area meets the standards of Subsection E, below;
- d. Each square foot of vegetation planted on an ecoroof that meets the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria* counts as .5 square feet toward the cap.

- 2. Payment cap. The total amount to be paid to the City is capped at an amount equal to the cost for the City to plant vegetation in an area equal in size to 15 percent of the total site area that is within the River Overlay zones. Once the payment cap is met, the applicant is no longer required to pay one percent of project value to the City: The Bureau of Development Services will adopt and maintain an off-site vegetation cost schedule.

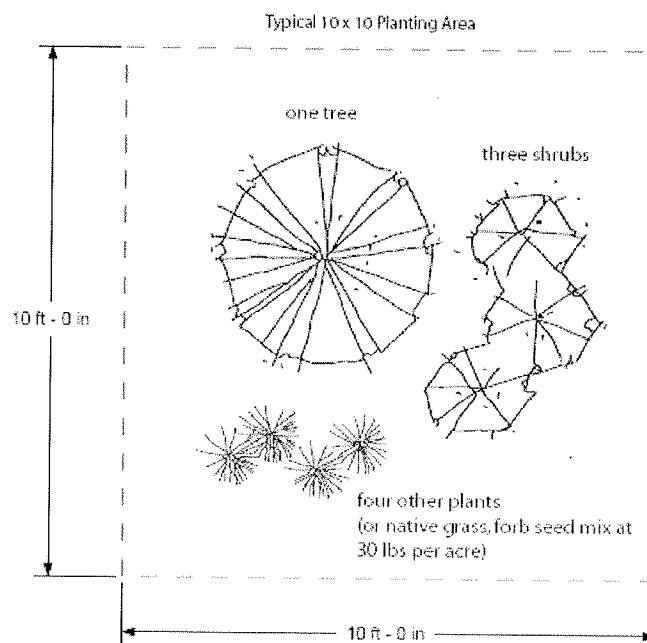
E. On-site vegetation planting standards. An on-site vegetation planting area must meet the following standards. Adjustments or modifications to the standards are prohibited:

- 1. All prohibited and nuisance plants listed on the Portland Plant List must be removed from the planting area and within in 10 feet of the planting area.
- 2. All structures and debris must be removed from the planting area except for large wood, bioengineered structures, and other structures that are used to reduce localized erosion and improve bank stabilization. Examples of bioengineered structures include bundles of plant materials, or soil cells wrapped in biodegradable fabrics.
- 3. Required plants. The following plant standards apply. See Figure 475-6, Example Planting Plan:
 - a. Plants and plant densities:
 - (1) One tree, three shrubs, and four other ground cover plants are required to be planted for every 100 square feet of planting area. Trees may be clustered. Plants must be selected from the *Portland Plant List*; or

This is a new chapter. For ease of readability the text is not underlined.

- (2) One tree and three shrubs are required for every 100 square feet of vegetated area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the *Portland Plant List*.
- b. For nonvegetated areas that will be revegetated to meet the minimum vegetated area standard, the soil must be amended as follows:
- (1) The revegetation area must have 12 inches of growing medium;
 - (2) Composition of growing medium:
 - For all revegetation areas located outside of the flood hazard area, the growing medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume); or
 - For all revegetation areas located within the flood hazard area, the growing medium must be a blend of loamy soil, sand, small gravels and compost. A civil engineer must certify that the growing medium is adequate to support the establishment and growth of vegetation, and is heavier than water.
 - (3) Placement of the growing medium is not allowed when the ground is frozen or saturated; and
 - (4) Temporary erosion control measures are required until permanent stabilization measures are functional.

**Figure 475-6
Example Planting Plan**



This is a new chapter. For ease of readability the text is not underlined.

4. Installation and maintenance. The following installation and maintenance requirements apply:
 - a. Installation. Plant materials must be supported when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires or other measures must be removed as soon as the plant can support itself.
 - b. Maintenance. Maintenance of vegetated areas is the ongoing responsibility of the property owner. Required vegetation must be continuously maintained in a healthy manner. Plants that die must be replaced in kind.
 - c. Irrigation. The intent of this standard is to ensure that plants will survive during a 3 year establishment period when they are most vulnerable due to lack of watering. All vegetated areas must provide a temporary irrigation system, as stated in option 1 or 2.
 - (1) Option 1. A temporary irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established.
 - (2) Option 2. Irrigation by hand. If the applicant chooses this option, an inspection will be required one year after final inspection to ensure that the vegetation has become established. An inspection fee, paid at the time of permit application, will be required.
 - d. Protection. All required vegetated areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas.
 - e. Monitoring and Reporting. Monitoring of vegetated areas is the ongoing responsibility of the property owner. Written proof that all specifications of this section have been met must be provided one year after the planting is completed. The property owner must provide this documentation to BDS.
5. Exception. Where an area has been deemed in compliance with subsubparagraph 33.475.460.F.2.a(1), the same area can be counted toward meeting the minimum vegetated area standard and will be deemed in conformance with the standards of this subsection.

This is a new chapter. For ease of readability the text is not underlined.

F. Determining project value. Project value is determined based on the entire project, not individual building permits. For purposes of this standard, project value includes:

1. The total value of all construction work for which a permit is required, including site preparation as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and other permanent work or equipment, and the contractor's profit;
2. Project value does not include costs associated with:
 - a. Normal maintenance and repair;
 - b. Nonconforming development upgrades required by this title;
 - c. Stormwater management system installation or upgrades;
 - d. Pollution control equipment;
 - c. Approved on-site mitigation for development within the River Environmental overlay zone, or resource enhancement that occurs within the River Environmental overlay zone;
 - e. Voluntary restoration that has been approved by the Bureau of Environmental Services;
 - f. Removal or remediation of hazardous substances conducted under ORS 465.200 through 465.545 and 465.900. If capping includes buildings or paving for parking lots or roads, then the costs associated with construction of the building, road or parking lot is included in project value;
 - g. Alterations required by approved fire/life safety agreements;
 - h. Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;
 - i. Alterations required by Chapter 24.85, Interim Seismic Design Requirements for Existing Buildings; and
 - j. Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements.

This is a new chapter. For ease of readability the text is not underlined.

River General Overlay Zone

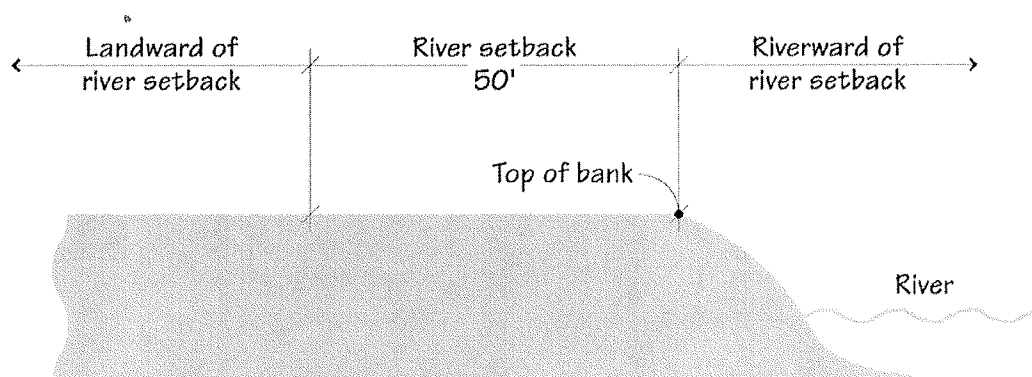
33.475.200 Use Regulations

There are no special use restrictions in the River General overlay zone.

33.475.210 River Setback

- A. Purpose.** The purpose of the river setback is to keep structures separated from the river in areas where the land is not being reserved for river-dependent and river-related industrial uses. Separating structures from the river facilitates protection, maintenance, restoration, preservation and enhancement of the natural, scenic, historic and recreational qualities of the Willamette River in the North Reach by reserving space for the conservation and enhancement of natural vegetation and the opportunity for public access. In addition, OAR 660-015-0005 requires the establishment of a setback line.
- B. General.** The requirements of this section focus on whether the development is **river-dependent** or **river-related**. The focus is not on the primary use of the land. For example, a marine freight terminal is a river-dependent primary use, but not all development associated with the terminal is river-dependent. The dock and loading cranes are river-dependent, but the parking lot, storage areas, and corporate offices are not.
- C. The river setback.** The location of the setback is measured from the top of bank. (See Chapter 33.910, Definitions and 33.930, Measurements). The river setback extends from the top of the bank to a point 50 feet landward of the top of the bank. See Figure 475-1. Where alteration to the river bank carried out to meet subsubparagraph 33.475.220.D.1.c(1) results in the top of bank shifting landward, the applicant may choose to measure the setback from the original top of bank. When this occurs, a survey of the original top of bank line and new top of bank line must be submitted for verification that the top of bank has been measured according to the standard in 33.930.150, Measuring Top of Bank and then recorded with the County recorder. In all cases the setback line must be at least 5 feet landward of the new top of bank line.

**Figure 475-1
River Setback**



Commentary

33.475.220 Vegetation Enhancement Standard

In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, an applicant for a building or development permit will be responsible for increasing the amount of vegetative cover on their site or in the North Reach by choosing to meet one of three options:

1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation. The vegetation planting area must meet the planting area standards described in subsection E;
2. Spend an amount equal to one percent of project value or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet Stormwater Management Manual guidelines; or
3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be spent on planting vegetation on one of the City's river restoration sites.

The amounts to be spent (one percent or \$200,000, whichever is less) has been recommended as a starting point in light of the current economic situation. Planning Commission recommends that the amount increases to two percent, or \$200,000, once the economy recovers from the current recession.

In order for the standard to have an end point (i.e. a point at which the spending or paying of one percent of project value is no longer required), the requirements include two types of caps—an on-site vegetation cap, and an off-site payment cap:

1. On-site vegetation cap. Once an applicant can show that 15 percent of their site is vegetated, the vegetation enhancement standard will be met. Vegetation planted on the riverbank will count at a ratio of 3:1; vegetation planted in or adjacent to the river environmental overlay zone will count at a ratio of 1.5:1; and vegetation on an ecoroof will count at a ratio of .5:1;
2. Off-site payment cap. Once an applicant can show that they have paid an amount equal to the cost for the City to plant vegetation in an area equal in size to 15% of their site, the vegetation standard will be met.

The City estimates that it will cost \$6.70 per square foot to plant and maintain vegetation in the North Reach. This is a preliminary estimation, and River Plan staff will work with the Bureau of Development Services to finalize the cost estimate prior to the implementation of this plan. The estimation quoted here was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be \$1.15. With a 90% management fee the estimate is increased to \$2.19. The unit cost for floodplain restoration is \$3.00. With a 90% management fee the estimate is \$5.70. The average of \$2.19 and \$5.70 is \$3.95. The cost for acquisition is estimated to be between \$3.00 and \$8.00 per square foot, with an average of \$5.50. Only a portion of the cost of acquisition will be recovered and therefore acquisition has been set at \$2.75. The total cost is the sum of \$3.95 and 2.75, or \$6.70/square foot.

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33.475.220 Vegetation Enhancement Standard

- A. Purpose.** The vegetation enhancement standard is intended to increase the quality and quantity of vegetative cover in the North Reach. Enhancing vegetation in the North Reach will improve the natural qualities of lands along the Willamette River Greenway, increase the quality and quantity of riparian and wildlife natural resources and functional values, increase wildlife habitat connectivity, and improve water quality and other watershed health conditions. This standard is not intended to provide mitigation for impacts to the natural qualities of the Willamette River Greenway from development, but rather improve natural conditions overall.
- B. When the standard applies.** The vegetation enhancement standard applies to new development and exterior alteration within the River Overlay zones.
- C. Vegetation enhancement standard.** The applicant must meet one of the following options.
1. Option 1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation on an area of the site that is within the River Overlay zones. The vegetated area must meet the planting area standards of Subsection E, below. Project value is determined based on Subsection F, below;
 2. Option 2. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria*. Project value is determined based on Subsection F, below; or
 3. Option 3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be directed to the River Restoration Fund and will be spent on planting vegetation on a City-owned site in the North Reach. Project value is determined based on Subsection F, below.
- D. Cap.** The following caps apply. The vegetation enhancement standard will be met when one of the caps is met:
1. On-site vegetation cap.
 - a. The amount of on-site vegetation required to be planted is capped at 15 percent of the total site area that is within the River Overlay zones. Once 15 percent of the total site area within the River Overlay zones is vegetated, the applicant is no longer required to spend one percent of project value coming into compliance with the vegetation enhancement standard;

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- b. Each square foot of vegetation planted within or adjacent to the river environmental overlay zone counts as 1.5 square feet toward the cap when the vegetated area meets the planting area standards of Subsection E, below;
- c. Each square foot of vegetation planted riverward of the top of bank counts as three square feet toward the cap when:
 - (1) The average slope of the river bank is not greater than 20 percent (1:5). Slopes greater than 20 percent may be retained within the root zones of existing trees over 10 inches in diameter, or as necessary to make a stable 1:2 transition at boundary of the vegetated area. The river bank is the area between the ordinary high water mark and the top of bank; and
 - (2) The planting area meets the standards of Subsection E, below;
- d. Each square foot of vegetation planted on an ecoroof that meets the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria* counts as .5 square feet toward the cap.

- 2. Payment cap. The total amount to be paid to the City is capped at an amount equal to the cost for the City to plant vegetation in an area equal in size to 15 percent of the total site area that is within the River Overlay zones. Once the payment cap is met, the applicant is no longer required to pay one percent of project value to the City: The Bureau of Development Services will adopt and maintain an off-site vegetation cost schedule.

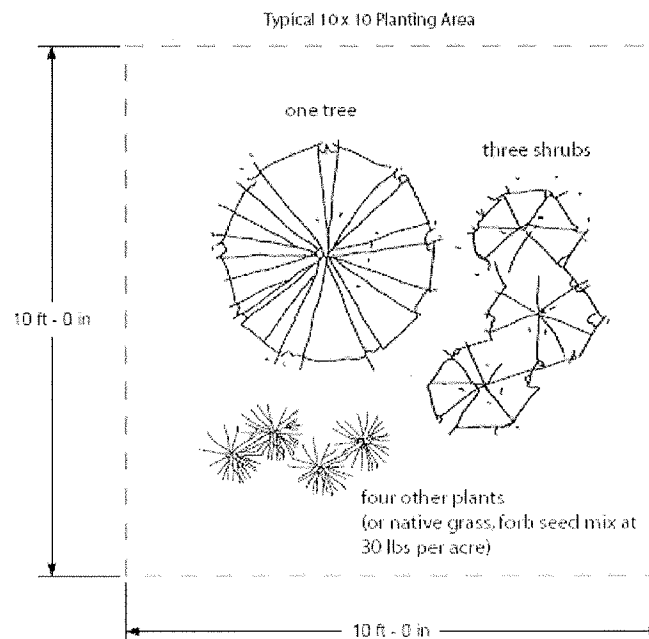
E. On-site vegetation planting standards. An on-site vegetation planting area must meet the following standards. Adjustments or modifications to the standards are prohibited:

- 1. All prohibited and nuisance plants listed on the Portland Plant List must be removed from the planting area and within 10 feet of the planting area.
- 2. All structures and debris must be removed from the planting area except for large wood, bioengineered structures, and other structures that are used to reduce localized erosion and improve bank stabilization. Examples of bioengineered structures include bundles of plant materials, or soil cells wrapped in biodegradable fabrics.
- 3. Required plants. The following plant standards apply. See Figure 475-6, Example Planting Plan:
 - a. Plants and plant densities:
 - (1) One tree, three shrubs, and four other ground cover plants are required to be planted for every 100 square feet of planting area. Trees may be clustered. Plants must be selected from the *Portland Plant List*; or

This is a new chapter. For ease of readability the text is not underlined.

- (2) One tree and three shrubs are required for every 100 square feet of vegetated area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the *Portland Plant List*.
- b. For nonvegetated areas that will be revegetated to meet the minimum vegetated area standard, the soil must be amended as follows:
- (1) The revegetation area must have 12 inches of growing medium;
 - (2) Composition of growing medium:
 - For all revegetation areas located outside of the flood hazard area, the growing medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume); or
 - For all revegetation areas located within the flood hazard area, the growing medium must be a blend of loamy soil, sand, small gravels and compost. A civil engineer must certify that the growing medium is adequate to support the establishment and growth of vegetation, and is heavier than water.
 - (3) Placement of the growing medium is not allowed when the ground is frozen or saturated; and
 - (4) Temporary erosion control measures are required until permanent stabilization measures are functional.

**Figure 475-6
Example Planting Plan**



This is a new chapter. For ease of readability the text is not underlined.

4. Installation and maintenance. The following installation and maintenance requirements apply:
 - a. Installation. Plant materials must be supported when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires or other measures must be removed as soon as the plant can support itself.
 - b. Maintenance. Maintenance of vegetated areas is the ongoing responsibility of the property owner. Required vegetation must be continuously maintained in a healthy manner. Plants that die must be replaced in kind.
 - c. Irrigation. The intent of this standard is to ensure that plants will survive during a 3 year establishment period when they are most vulnerable due to lack of watering. All vegetated areas must provide a temporary irrigation system, as stated in option 1 or 2.
 - (1) Option 1. A temporary irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established.
 - (2) Option 2. Irrigation by hand. If the applicant chooses this option, an inspection will be required one year after final inspection to ensure that the vegetation has become established. An inspection fee, paid at the time of permit application, will be required.
 - d. Protection. All required vegetated areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas.
 - e. Monitoring and Reporting. Monitoring of vegetated areas is the ongoing responsibility of the property owner. Written proof that all specifications of this section have been met must be provided one year after the planting is completed. The property owner must provide this documentation to BDS.
5. Exception. Where an area has been deemed in compliance with subparagraph 33.475.460.F.2.a(1), the same area can be counted toward meeting the minimum vegetated area standard and will be deemed in conformance with the standards of this subsection.

This is a new chapter. For ease of readability the text is not underlined.

F. Determining project value. Project value is determined based on the entire project, not individual building permits. For purposes of this standard, project value includes:

1. The total value of all construction work for which a permit is required, including site preparation as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and other permanent work or equipment, and the contractor's profit;
2. Project value does not include costs associated with:
 - a. Normal maintenance and repair;
 - b. Nonconforming development upgrades required by this title;
 - c. Stormwater management system installation or upgrades;
 - d. Pollution control equipment;
 - c. Approved on-site mitigation for development within the River Environmental overlay zone, or resource enhancement that occurs within the River Environmental overlay zone;
 - e. Voluntary restoration that has been approved by the Bureau of Environmental Services;
 - f. Removal or remediation of hazardous substances conducted under ORS 465.200 through 465.545 and 465.900. If capping includes buildings or paving for parking lots or roads, then the costs associated with construction of the building, road or parking lot is included in project value;
 - g. Alterations required by approved fire/life safety agreements;
 - h. Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;
 - i. Alterations required by Chapter 24.85, Interim Seismic Design Requirements for Existing Buildings; and
 - j. Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements.

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River Recreational Overlay Zone

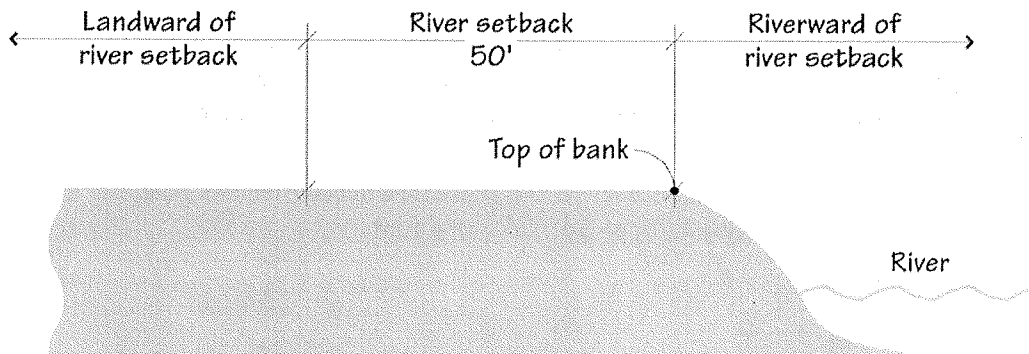
33.475.300 Use Regulation

Primary uses are limited to recreational uses that are river-dependent or river-related.

33.475.310 River Setback

- A. Purpose.** The purpose of the river setback is to keep structures separated from the river in areas where the land is not being reserved for river-dependent and river-related industrial uses. Separating structures from the river facilitates protection, maintenance, restoration, preservation and enhancement of the natural, scenic, historic and recreational qualities of the Willamette River in the North Reach by reserving space for the conservation and enhancement of natural vegetation and the opportunity for public access. In addition, OAR 660-015-0005 requires the establishment of a setback line.
- B. General.** The requirements of this section focus on whether the development is **river-dependent** or **river-related**. The focus is not on the primary use of the land. For example, a riverfront park is a river-dependent recreational primary use, but not all development associated with the park is river-dependent. The boat launch, dock, trail, bench, picnic tables, bicycle racks, drinking fountains, trash receptacles, grills, and bioswales associated with trails are river-dependent, but the parking lot, bathrooms, playgrounds, gazebos, storage areas, water fountains, shelters and sport fields are not.
- C. The river setback area.** The location of the setback is measured from the top of bank. (See Chapter 33.910, Definitions and 33.930, Measurements). The river setback extends from the top of the bank to a point 50 feet landward of the top of the bank. See Figure 475-3. Where alteration to the river bank carried out to meet subparagraph 33.475.320.D.1.c(1) results in the top of bank shifting landward, the applicant may choose to measure the setback from the original top of bank. When this occurs, a survey of the original top of bank line and new top of bank line must be submitted for verification that the top of bank has been measured according to the standard in 33.930.150, Measuring Top of Bank and then recorded with the County recorder. In all cases the setback line must be at least 5 feet landward of the new top of bank line.

**Figure 475-3
River Setback**



Commentary

33.475.320 Vegetation Enhancement Standard

In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, an applicant for a building or development permit will be responsible for increasing the amount of vegetative cover on their site or in the North Reach by choosing to meet one of three options:

1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation. The vegetation planting area must meet the planting area standards described in subsection E;
2. Spend an amount equal to one percent of project value or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet Stormwater Management Manual guidelines; or
3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be spent on planting vegetation on one of the City's river restoration sites.

The amounts to be spent (one percent or \$200,000, whichever is less) has been recommended as a starting point in light of the current economic situation. Planning Commission recommends that the amount increases to two percent, or \$200,000, once the economy recovers from the current recession.

In order for the standard to have an end point (i.e. a point at which the spending or paying of one percent of project value is no longer required), the requirements include two types of caps—an on-site vegetation cap, and an off-site payment cap:

1. On-site vegetation cap. Once an applicant can show that 15 percent of their site is vegetated, the vegetation enhancement standard will be met. Vegetation planted on the riverbank will count at a ratio of 3:1; vegetation planted in or adjacent to the river environmental overlay zone will count at a ratio of 1.5:1; and vegetation on an ecoroof will count at a ratio of .5:1;
2. Off-site payment cap. Once an applicant can show that they have paid an amount equal to the cost for the City to plant vegetation in an area equal in size to 15% of their site, the vegetation standard will be met.

The City estimates that it will cost \$6.70 per square foot to plant and maintain vegetation in the North Reach. This is a preliminary estimation, and River Plan staff will work with the Bureau of Development Services to finalize the cost estimate prior to the implementation of this plan. The estimation quoted here was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be \$1.15. With a 90% management fee the estimate is increased to \$2.19. The unit cost for floodplain restoration is \$3.00. With a 90% management fee the estimate is \$5.70. The average of \$2.19 and \$5.70 is \$3.95. The cost for acquisition is estimated to be between \$3.00 and \$8.00 per square foot, with an average of \$5.50. Only a portion of the cost of acquisition will be recovered and therefore acquisition has been set at \$2.75. The total cost is the sum of \$3.95 and 2.75, or \$6.70/square foot.

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33.475.320 Vegetation Enhancement Standard

- A. Purpose.** The vegetation enhancement standard is intended to increase the quality and quantity of vegetative cover in the North Reach. Enhancing vegetation in the North Reach will improve the natural qualities of lands along the Willamette River Greenway, increase the quality and quantity of riparian and wildlife natural resources and functional values, increase wildlife habitat connectivity, and improve water quality and other watershed health conditions. This standard is not intended to provide mitigation for impacts to the natural qualities of the Willamette River Greenway from development, but rather improve natural conditions overall.
- B. When the standard applies.** The vegetation enhancement standard applies to new development and exterior alteration within the River Overlay zones.
- C. Vegetation enhancement standard.** The applicant must meet one of the following options.
1. Option 1. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on planting vegetation on an area of the site that is within the River Overlay zones. The vegetated area must meet the planting area standards of Subsection E, below. Project value is determined based on Subsection F, below;
 2. Option 2. Spend an amount equal to one percent of project value, or \$200,000, which ever is less, on an ecoroof. The ecoroof must meet the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria*. Project value is determined based on Subsection F, below; or
 3. Option 3. Make a payment to the City equal to one percent of project value, or \$200,000, which ever is less. The payment will be directed to the River Restoration Fund and will be spent on planting vegetation on a City-owned site in the North Reach. Project value is determined based on Subsection F, below.
- D. Cap.** The following caps apply. The vegetation enhancement standard will be met when one of the caps is met:
1. On-site vegetation cap.
 - a. The amount of on-site vegetation required to be planted is capped at 15 percent of the total site area that is within the River Overlay zones. Once 15 percent of the total site area within the River Overlay zones is vegetated, the applicant is no longer required to spend one percent of project value coming into compliance with the vegetation enhancement standard;

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- b. Each square foot of vegetation planted within or adjacent to the river environmental overlay zone counts as 1.5 square feet toward the cap when the vegetated area meets the planting area standards of Subsection E, below;
- c. Each square foot of vegetation planted riverward of the top of bank counts as three square feet toward the cap when:
 - (1) The average slope of the river bank is not greater than 20 percent (1:5). Slopes greater than 20 percent may be retained within the root zones of existing trees over 10 inches in diameter, or as necessary to make a stable 1:2 transition at boundary of the vegetated area. The river bank is the area between the ordinary high water mark and the top of bank; and
 - (2) The planting area meets the standards of Subsection E, below;
- d. Each square foot of vegetation planted on an ecoroof that meets the Stormwater Management Manual's *Ecoroof and Rain Garden Facility Design Criteria* counts as .5 square feet toward the cap.

- 2. Payment cap. The total amount to be paid to the City is capped at an amount equal to the cost for the City to plant vegetation in an area equal in size to 15 percent of the total site area that is within the River Overlay zones. Once the payment cap is met, the applicant is no longer required to pay one percent of project value to the City. The Bureau of Development Services will adopt and maintain an off-site vegetation cost schedule.

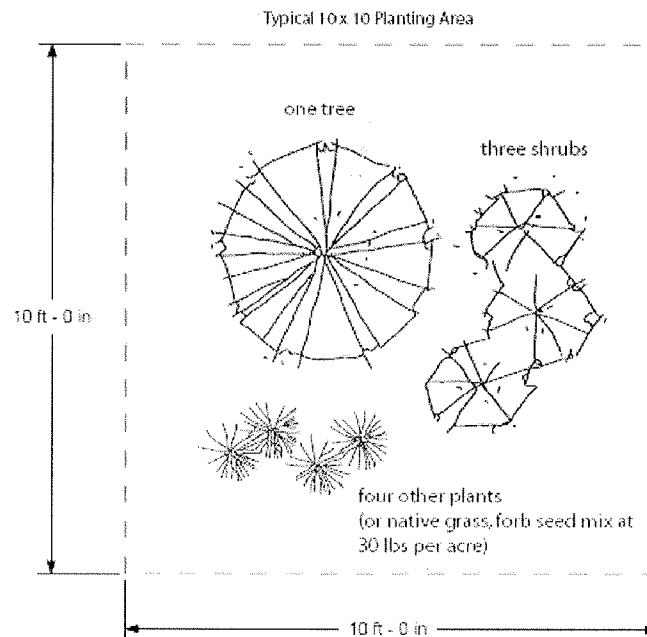
E. On-site vegetation planting standards. An on-site vegetation planting area must meet the following standards. Adjustments or modifications to the standards are prohibited:

- 1. All prohibited and nuisance plants listed on the Portland Plant List must be removed from the planting area and within 10 feet of the planting area.
- 2. All structures and debris must be removed from the planting area except for large wood, bioengineered structures, and other structures that are used to reduce localized erosion and improve bank stabilization. Examples of bioengineered structures include bundles of plant materials, or soil cells wrapped in biodegradable fabrics.
- 3. Required plants. The following plant standards apply. See Figure 475-6, Example Planting Plan:
 - a. Plants and plant densities:
 - (1) One tree, three shrubs, and four other ground cover plants are required to be planted for every 100 square feet of planting area. Trees may be clustered. Plants must be selected from the *Portland Plant List*, or

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- (2) One tree and three shrubs are required for every 100 square feet of vegetated area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the *Portland Plant List*.
- b. For nonvegetated areas that will be revegetated to meet the minimum vegetated area standard, the soil must be amended as follows:
- (1) The revegetation area must have 12 inches of growing medium;
 - (2) Composition of growing medium:
 - For all revegetation areas located outside of the flood hazard area, the growing medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume); or
 - For all revegetation areas located within the flood hazard area, the growing medium must be a blend of loamy soil, sand, small gravels and compost. A civil engineer must certify that the growing medium is adequate to support the establishment and growth of vegetation, and is heavier than water.
 - (3) Placement of the growing medium is not allowed when the ground is frozen or saturated; and
 - (4) Temporary erosion control measures are required until permanent stabilization measures are functional.

**Figure 475-6
Example Planting Plan**



This is a new chapter. For ease of readability the text is not underlined.

4. Installation and maintenance. The following installation and maintenance requirements apply:
 - a. Installation. Plant materials must be supported when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires or other measures must be removed as soon as the plant can support itself.
 - b. Maintenance. Maintenance of vegetated areas is the ongoing responsibility of the property owner. Required vegetation must be continuously maintained in a healthy manner. Plants that die must be replaced in kind.
 - c. Irrigation. The intent of this standard is to ensure that plants will survive during a 3 year establishment period when they are most vulnerable due to lack of watering. All vegetated areas must provide a temporary irrigation system, as stated in option 1 or 2.
 - (1) Option 1. A temporary irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established.
 - (2) Option 2. Irrigation by hand. If the applicant chooses this option, an inspection will be required one year after final inspection to ensure that the vegetation has become established. An inspection fee, paid at the time of permit application, will be required.
 - d. Protection. All required vegetated areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas.
 - e. Monitoring and Reporting. Monitoring of vegetated areas is the ongoing responsibility of the property owner. Written proof that all specifications of this section have been met must be provided one year after the planting is completed. The property owner must provide this documentation to BDS.
5. Exception. Where an area has been deemed in compliance with subsubparagraph 33.475.460.F.2.a(1), the same area can be counted toward meeting the minimum vegetated area standard and will be deemed in conformance with the standards of this subsection.

This is a new chapter. For ease of readability the text is not underlined.

F. Determining project value. Project value is determined based on the entire project, not individual building permits. For purposes of this standard, project value includes:

1. The total value of all construction work for which a permit is required, including site preparation as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems and other permanent work or equipment, and the contractor's profit;
2. Project value does not include costs associated with:
 - a. Normal maintenance and repair;
 - b. Nonconforming development upgrades required by this title;
 - c. Stormwater management system installation or upgrades;
 - d. Pollution control equipment;
 - e. Approved on-site mitigation for development within the River Environmental overlay zone, or resource enhancement that occurs within the River Environmental overlay zone;
 - f. Voluntary restoration that has been approved by the Bureau of Environmental Services;
 - g. Removal or remediation of hazardous substances conducted under ORS 465.200 through 465.545 and 465.900. If capping includes buildings or paving for parking lots or roads, then the costs associated with construction of the building, road or parking lot is included in project value;
 - h. Alterations required by approved fire/life safety agreements;
 - i. Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;
 - j. Alterations required by Chapter 24.85, Interim Seismic Design Requirements for Existing Buildings; and
 - k. Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements.

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River Environmental Overlay Zone

33.475.400 Use Regulation

There are no special use restrictions associated specifically with the River Environmental overlay zone. However, any use restrictions that apply as a result of an accompanying River Overlay zone also apply within the River Environmental overlay zone.

33.475.405 Environmental Report

The River Environmental overlay zone is intended to protect and conserve specific natural resource features and functional values identified in a detailed study titled *Willamette River Natural Resource Inventory: Riparian Corridors and Wildlife Habitat (2008)*. The report identifies the type, location, extent and relative condition of natural resource features and describes functional values they provide within the study area. Functional values are the benefits provided by resources. The values for each resource site are described in the inventory section of the report.

33.475.420 Review Procedures

Development and exterior alterations within the River Environmental overlay zone will be reviewed through one of the following tracks:

- A. Exemptions.** Some development, alterations and other items are exempt from the standards of the River Environmental overlay zone and exempt from River Review. In this case, development is exempt only from the River Environmental overlay zone regulations but may be subject to the other regulations in this Chapter. Development that is exempt from meeting the River Environmental overlay zone regulations is listed in 33.475.430.A, below. If the development is not included on the list of exemptions, then the proposal is subject to either the River Environmental overlay zone standards or River Review.
- B. Standards.** Several specific types of development and alterations are allowed within the River Environmental overlay zone if the proposal meets certain standards. Standards are provided for bulkheads, cargo conveyors, rail rights-of-way, utility lines, stormwater outfalls, trails, resource enhancement, and site investigative work. The standards are intended to encourage sensitive development while providing clear limitations on disturbance, including tree removal, and minimizing impacts on resources and functional values. Adjustments to the standards are prohibited. Modification of the standards may be approved through River Review. When a proposal can meet the standards, the applicant may choose to go through the discretionary River Review process, or meet the objective standards of this section. When there are no applicable standards, the proposal must be approved through River Review. Compliance with the standards is determined as part of the building permit or development permit application process. The standards are listed in 33.475.430.B, below.
- C. Review.** River Review is required when the proposed development or exterior alteration is subject to the River Environmental overlay zone regulations, and the development or exterior alteration either does not meet the River Environmental development standard or there are no River Environmental development standard that apply to the proposal. The process and approval criteria for River Review can be found in Chapter 33.865, River Review.

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33.475.430 Exemptions and Development Standards

Unless exempted by subsection A, below, the standards in subsection B apply to development and exterior alterations in the River Environmental overlay zone.

- A. Exemptions.** The following items are exempt from the River Environmental development standards and do not require River Review:
1. Change of ownership;
 2. Temporary emergency procedures necessary for the protection of life, health, safety, or property;
 3. Existing development, operations, and improvements including the following:
 - a. Operation, maintenance, repair, and replacement of existing structures, exterior improvements, roads, public trails and paths, public viewpoints, and public interpretive facilities. Replacement is not exempt whenever coverage is increased, or permeability is decreased;
 - b. Maintenance, repair, and replacement of existing utilities. Replacement of underground utilities is not exempt whenever the size of the utility is increased;
 - c. Removal of existing structures. Removal is not exempt whenever there is ground disturbance;
 - d. Pruning of trees and shrubs within 10 feet of a structure;
 - e. Alterations to buildings that do not change the building footprint and do not require adjustments to site-related development standards;
 - f. Structures that are located on existing paved surfaces;
 - g. Structures on an existing dock, wharf, or pier;
 - g. Operation, maintenance, repair and replacement of irrigation systems, stormwater facilities, non-potable water systems, and erosion control measures. Replacement is not exempt whenever coverage or utility size is increased;
 - h. Dredging, channel maintenance, and the removal of materials as follows:
 - (1) Dredging, channel maintenance, and the removal of materials within the federal navigation channel.
 - (2) Dredging, channel maintenance, and the removal of materials outside of the federal navigation channel as follows:
 - Dredging and the removal of material in areas in waters that are 35 feet deep or deeper; or
 - Channel, slip and berth maintenance that has been approved by the U.S. Army Corps of Engineers.
 - (3) The placement of dredged materials within the River Environmental Overlay zone is not exempt.

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- i. Removing plants listed on the Nuisance or Prohibited Plant Lists except for trees; and
 - j. Removing trees or portions of trees when the City Forester or a certified arborist determines that they pose an immediate danger. Removing these portions is exempt only if all sections of wood greater than 12 inches in diameter remain, or are placed, in the River Environmental overlay zone on the same ownership on which they are cut.
4. The following new development and improvements:
- a. The placement of up to 4 single piles, or 2 multiple-pile dolphins for each 100 feet of shoreline for an existing river-dependent or river-related use;
 - b. Planting of native vegetation listed on the Portland Plant List when planted with hand-held equipment;
 - c. Groundwater monitoring wells constructed to the standards of the Oregon Water Resources Department and water quality monitoring stations, where access is by foot only;
 - d. Installation of security cameras provided that no more than 100 square feet of ground surface is disturbed landward of top of bank, no ground is disturbed riverward of the top of bank, native trees 4 inches and greater in diameter are not removed, and any disturbed area is restored to pre-construction conditions;
 - e. Utility service using a single utility pole or where no more than 100 square feet of ground surface is disturbed landward of the top of bank of water bodies, no ground is disturbed riverward of top of bank, and where the disturbed area is restored to the pre-construction conditions;
 - f. Utilities installed above or below developed portions of the public right-of-way, and stormwater management facilities within the public right-of-way;
 - g. Temporary site investigative work including soil tests, land surveys, groundwater and water quality monitoring stations when all of the following are met:
 - (1) The work is conducted using hand-held equipment only;
 - (2) The disturbance is temporary;
 - (3) Disturbance areas are restored to pre-existing conditions; and
 - (4) No native trees are removed.

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- h. Installation of fencing in the following situations:
 - (1) Fencing on an already paved surface; and
 - (2) Temporary fencing to protect resource enhancement project planting areas, prevent access to hazardous material spill areas or contaminated sites, or to close off or control the use of illegal trails. The fence must be removed within five years;
- i. Installation of signage as part of public trail development, for interpretive purposes, as part of navigational aids, as part of resource enhancement projects, as part of operational aids, or to provide public safety or health warnings;
- j. Removal of trash, provided that native vegetation is not removed or damaged. This includes removal of trash from the river bed, or from the water. Removal of trash does not include the removal or remediation of hazardous substances.

B. Standards. The following standards apply to several specific types of low-impact development.

- 1. Standards for bulkheads. The following standards apply to bulkheads within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. The installation of a bulkhead is allowed when all of the following are met:
 - (1) There is an existing bulkhead on site;
 - (2) The new bulkhead is replacing some or all of the existing bulkhead;
 - (3) The new bulkhead is located in the same footprint as the existing bulkhead except that the footprint of the new bulkhead can move up to five feet riverward of the existing bulkhead; and
 - b. To compensate for the impacts to natural resources of placing the new bulkhead riverward of the existing bulkhead, the applicant must make a mitigation payment to the River Restoration Program. The Bureau of Development Services shall adopt and maintain a mitigation payment schedule based on the square footage of the area that is filled between the old and new bulkhead, and track where in-lieu payments have been collected. See Figure 475-5, Replacement Bulkhead Mitigation Area.

Commentary

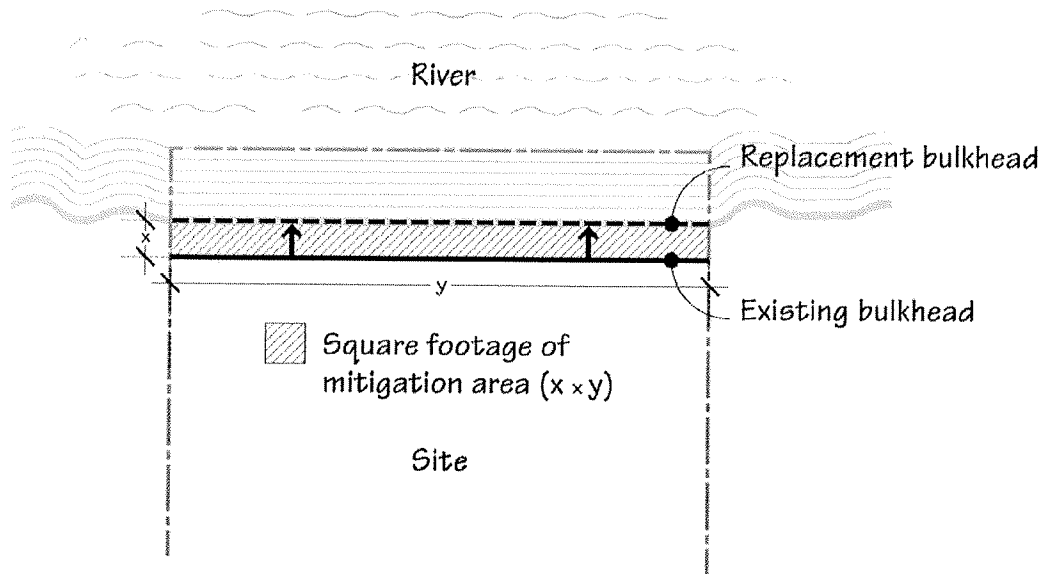
33.475.430.B.2 Standards for Cargo Conveyors

These standards were developed in consultation with Port of Portland staff and reflect the general characteristics and impacts of conveyors that carry cargo to and from a ship. The standards state that disturbance must not occur riverward of the top of bank of the Willamette River, however up to 4 single piles or 2 multiple-pile dolphins for each 100 feet of shoreline may be installed through the exemptions.

The tree removal standards are described in paragraph B.10, below and generally allow the removal of non-native trees and native trees up to 10 inches in diameter. Every tree over 4 inches in diameter that is removed must be replaced at a ratio of 1:1 (i.e. one diameter inch of tree replaced for every one diameter inch of tree removed).

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**Figure 475-5
Replacement Bulkhead Mitigation Area**



2. Standards for cargo conveyors. The following standards apply to cargo conveyors within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. No more than 250 square feet of disturbance is allowed per support footing;
 - b. No more than 50 cubic yards total of excavation is allowed;
 - c. Disturbance associated with the support footing or the installation of the footing may not occur riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of the top of bank of an identified stream, wetland or other water body, ;
 - d. Temporary roads necessary for the installation of the footings may not be wider than 15 feet, must be removed by the completion of the footing installation, and the disturbed area must be replanted to meet the standard of paragraph B.10.f, below;
 - e. Tree removal as allowed by paragraph B.10, below; and
 - f. Mitigation is required as specified in paragraph B.11, below.

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3. Standards for rail right-of-way. The following standards apply to rail rights-of-way within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review:
 - a. Disturbance associated with the construction of a rail right-of-way may occur within a corridor that is up to 20 feet wide. No disturbance is allowed outside of the 20 foot wide corridor;
 - b. Disturbance associated with the rail corridor or installation of the rail corridor may not occur riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of the top of bank of a stream, wetland or other water body;
 - c. Tree removal as allowed by paragraph B.10, below; and
 - d. Mitigation is required as specified in paragraph B.11, below.
4. Standards for utility lines. The following standards apply to new utility lines, private connections to existing or new utility lines, and upgrades of existing utility lines within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. Disturbance associated with the installation of a utility line, including utility trenching, may occur within a corridor that is no greater than 10 feet wide. Disturbance may not occur outside of the 10 foot corridor;
 - b. Disturbance associated with the installation of a utility line may not occur riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of the top of bank of a stream, wetland, or other water body;
 - c. Tree removal as allowed by paragraph B.10, below; and
 - d. Mitigation is required as specified in paragraph B.11, below.
5. Standards for stormwater outfalls. The following standards apply to the installation of stormwater outfalls. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. Disturbance associated with the installation of a stormwater outfall may occur within an area that is up to 10 feet wide;
 - b. When constructed open channels or vegetated swales are proposed, the slope between the stormwater source and the water body does not exceed 15 percent at any point.

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- c. If an outfall riprap pad is used it must be planted with live stakes of native plant stock, one-half inch in diameter. Stakes must be installed at a density of three stakes per square yard. Detailed specifications for installing live stakes are found in the *Erosion Control Manual*;
 - d. Tree removal as allowed by paragraph B.10, below; and
 - e. Mitigation is required as specified in paragraph B.11, below.
6. Standards for trails. The following standards apply to trails. All of the standards must be met. Modification of these standards requires approval through a River Review.
- a. Disturbance associated with the construction of a trail must be set back at least 25 feet from the top of bank of the Willamette River, and 30 feet from the top of bank of a stream, wetland or other water body.
 - b. Tree removal as allowed by paragraph B.10, below; and
 - c. Mitigation is required as specified in paragraph B.11, below.

This is a new chapter. For ease of readability the text is not underlined.

7. Standards for resource enhancement. The following standards apply to resource enhancement projects within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. The following standards apply to river bank restoration and enhancement projects located riverward of the top of bank of the Willamette River including projects that relocate the top of bank of the Willamette River:
 - (1) The bank may be re-graded if the slope after grading is shallower than the slope prior to grading. In no case can the final slope be greater than 20 percent (20 percent slope represents a rise to run ratio equal to 1:5);
 - (2) Rock armoring must not be used on the surface between the top of bank and the ordinary high water mark except as required surrounding outfalls;
 - (3) The placement of large wood and bioengineered structures on the bank is allowed to reduce localized erosion and improve bank stabilization. Examples of bioengineered structures include bundles of plant materials or soil cells wrapped in biodegradable fabrics;
 - (4) The area between the top of bank and the ordinary high water mark must be planted with one tree, three shrubs, and four other plants for every 100 square feet of area. Trees may be clustered. Plants must be selected from the *Portland Plant List*; and
 - (5) Tree removal as allowed by subsection B.10, below.

Commentary

33.475.430.B.8 Site investigative work

This set of standards will allow site investigative work, including the installation of monitoring wells, when the work is done with mechanical equipment. An exemption allows this type of work when the work is done exclusively with hand-held equipment.

33.475.430.B.9 Standards for development in the River Recreational overlay zone

These standards allow the City of Portland Parks and Recreation department to install park amenities in City parks located in the North Reach. The types of amenities that Parks envisions being installed without river review include park benches, picnic tables, drinking fountains, bicycle racks, trash cans, playgrounds, memorials, kiosk, etc. The standards limit the amount of disturbance that will occur within the river environmental overlay zone for the construction of each amenity to 1,800 square feet. The standards also limit tree removal and require mitigation.

This is a new chapter. For ease of readability the text is not underlined.

8. Standards for site investigative work. The following standards apply to site investigative work within the River Environmental overlay zone. Site investigative work includes soil tests, land surveys, groundwater and water quality monitoring stations. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. No more than 100 square feet of disturbance is allowed per site investigative work activity;
 - b. Disturbance associated with site investigative work is temporary;
 - c. No native trees are removed; and
 - d. Disturbance areas are restored to pre-existing conditions.

9. Standards for other development in a City of Portland park. The following standards apply to development in a City of Portland park that is not subject to other standards in this subsection. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
 - a. Disturbance associated with development in a City of Portland park must be set back at least 25 feet from the top of bank of the Willamette River, and 30 feet from a stream, wetland or other water body;
 - b. Disturbance associated with development in a City of Portland park may not exceed the following:
 - (1) 500 square feet within the river setback; or
 - (2) 1,800 square feet landward of the river setback.
 - c. Tree removal as allowed by paragraph B.10, below; and
 - d. Mitigation is required as specified in paragraph B.11, below.

Commentary

33.475.430.B.10 Removal of trees

These standards allow the removal of non-native trees, including those that are listed as nuisance or prohibited on the *Portland Plant List*. These trees must be replaced with native trees. This is a change from existing allowances in the Environmental Overlay zones. Currently, nuisance and prohibited trees may be removed and replacement is not required. Planning Commission recommends amending that allowance to require that applicants replace trees to compensate for lost functions, including soil stabilization, interception of precipitation, shade and air cooling, and habitat. This proposal is also under consideration through the Citywide Tree Policy Review and Regulatory Improvement Project. While the City should continue to support the removal of nuisance and prohibited trees, current understanding about the continued loss of tree canopy throughout the City calls for tree replacement even if the tree is a nuisance or prohibited tree. The recommended standard allows all nuisance and prohibited trees to be removed and requires replacement when trees over 4 inches in diameter are removed. The recommended replacement ratio is: one diameter inch of tree replaced for every one diameter inch of tree removed. Replacement trees must have same or greater canopy factor as the tree to be removed. The threshold for replacement, the replacement ratio, and required canopy factors are different than the regulations currently applicable in the Environmental Overlay zones. While these approaches may ultimately be deemed appropriate in other parts of the city as well, they are recommended for the North Reach at this time given the lack of mature trees within resource areas in the North Reach. Therefore the loss of smaller trees has a greater impact on resource function. Replacement will offset the loss of function.

Under certain circumstances, the standards also allow the removal of native trees up to 10 inches in diameter when the removal is in conjunction with installation of cargo conveyor, rail right-of-way, utility line, stormwater outfall, trail, or the implementation of a resource enhancement project. The removal of trees is limited to the areas within which the development or activity will occur and replacement is required for trees over 4 inches in diameter.

This is a new chapter. For ease of readability the text is not underlined.

10. Standards for tree removal. The following standards apply to the removal of trees 4 inches or greater in diameter from within the River Environmental overlay zone. All of the standards must be met. Modification of these standards requires River Review:
- a. Trees that are not native trees on the *Portland Plant List* may be removed;
 - b. Generally, native trees on the *Portland Plant List* may not be removed except as follows:
 - (1) General. Native trees up to 10 inches in diameter may be removed or pruned in conjunction with development and exterior improvements approved under the standards of this section as follows:
 - within the area where disturbance is allowed for the support footing for a cargo conveyor will be located.
 - within the area where disturbance is allowed for a temporary road associated with the installation of a cargo conveyor will be located.
 - within 10 feet of the cargo conveyor when removal or pruning is necessary to ensure safe operations;
 - within the rail right-of-way and within 10 feet of the rail right-of-way
 - within the utility line corridor;
 - within the area where the stormwater outfall will be constructed;
 - within the area where the trail will be constructed; and
 - within the area where development in the River Recreational overlay zone will be constructed.

Commentary

33.475.430.B.10.c The threshold for replacing trees in the river environmental overlay zone in the North Reach is 4 inches. The threshold for replacing trees in other environmental overlay zones is 6 inches. The difference represents the fact that there are fewer and smaller trees in the North Reach than in other areas of the City.

33.475.430.B.11 Mitigation

In order to develop in or alter the River Environmental overlay zone, mitigation is required. Mitigation must occur in an area that is one and one-half times the size of the area that will be disturbed for the development. This ratio is intended to mitigate for the fact that when mature, established vegetation is removed and replaced with new plantings there is a loss of resource functional value until the new vegetation becomes established.

The required number of plants and the planting densities recommended in this standard match requirements that are in effect in the Environmental Overlay zones and the Pleasant Valley Natural Resource overlay zone.

This is a new chapter. For ease of readability the text is not underlined.

- (2) Resource enhancement project. Native trees up to 10 inches in diameter may be removed in conjunction with the following:
 - a project that is located riverward of the top or bank;
 - a project being undertaken by the Bureau of Environmental Services or Portland Parks and Recreation to restore native oak woodland;
 - a project that relocates the top of bank; or
 - a public viewing area that meets all of the standards in B.7.b(4), above; and
- c. Trees that are over 4 inches in diameter that are removed must be replaced as follows:
 - (1) one diameter inch of tree must replace every one diameter inch of tree removed. Every inch of evergreen tree removed must be replaced with an equal number of inches of evergreen tree;
 - (2) the replacement trees must be a minimum ½-inch in diameter;
 - (3) the replacement trees must be native trees selected from the *Portland Plant List* unless the trees are street trees planted between the sidewalk and the curb. In this case, trees may be non-native non-nuisance tree species as determined by the City Forester;
 - (4) all replacement trees must be planted within the River Environmental overlay zone, within 50 feet of the River Environmental overlay zone, or within 50 feet of the top of bank of the Willamette River in the North Reach. If the trees are not planted on the applicant's site, then the applicant must own the property or have an easement or deed that ensures the area where the trees are planted will not be developed;
 - (5) all replacement trees must be planted 10 feet on center; and
 - (6) The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.
11. Mitigation. The following standards apply to mitigation required by paragraphs B.2 through B.6, and B.9. All of the standards must be met. Modification of these standards requires approval through a River Review.
 - a. Mitigation must occur at a 1.5:1 ratio of mitigation area to project impact area. Project impact area is the total area within the River Environmental overlay zone where structures will be built, vegetation will be removed, or ground disturbance will occur as a result of the proposal. Mitigation area is not counted as part of the project impact area;

This is a new chapter. For ease of readability the text is not underlined.

- b. Mitigation must occur within the River Environmental overlay zone, within 50 feet of the River Environmental overlay zone, or within 50 feet of the top of bank of the Willamette River in the North Reach. If the mitigation area is not on the site where the project occurs, then the applicant must own the property or have an easement or deed restriction sufficient to ensure the right to carry out, monitor, and maintain the mitigation for 3 years;
- c. The mitigation must be conducted no later than six months from the time of development or alteration. The mitigation can occur at the same time as the proposed development or alteration;
- d. Nuisance and prohibited plants identified on the *Portland Plant List* must be removed within the area to be replanted. Trees removed to meet this subparagraph must be replaced as specified in subparagraph B.10.c, above;
- e. Existing native plants can be used to meet the standards of this paragraph if the vegetation is protected and maintained as specified in Section 33.248.065;
- f. Required plants and planting densities:
 - (1) One tree, three shrubs, and four other plants are required to be planted for every 100 square feet of replanting area. Trees may be clustered. Plants must be selected from the *Portland Plant List* and must be compatible with the conditions of the site; or
 - (2) One tree and three shrubs are required for every 100 square feet of replanting area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the *Portland Plant List* and must be compatible with the conditions of the site;

Commentary

33.475.430.B.11.i The standards that are referred to in this subparagraph govern plant materials, installation, irrigation and monitoring and reporting for mitigation and restoration plantings.

33.475.430.B.11.k Instead of conducting mitigation by meeting the mitigation planting standards, the applicant will be able to choose to make a mitigation payment to the City. The City will use the payment to planting native vegetation on a restoration site in the North Reach. The amount of payment will be calculated based on same 1.5:1 ratio that the planting standard is measured on.

The City estimates that it will cost \$6.70 per square foot to plant and maintain vegetation in the North Reach. This is a preliminary estimation, and River Plan staff will work with the Bureau of Development Services to finalize the cost estimate prior to the implementation of this plan. The estimation quoted here was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be \$1.15. With a 90% management fee the estimate is increased to \$2.19. The unit cost for floodplain restoration is \$3.00. With a 90% management fee the estimate is \$5.70. The average of \$2.19 and \$5.70 is \$3.95. The cost for acquisition is estimated to be between \$3.00 and \$8.00 per square foot, with an average of \$5.50. Only a portion of the cost of acquisition will be recovered and therefore acquisition has been set at \$2.75. The total cost is the sum of \$3.95 and 2.75, or \$6.70/square foot.

33.475.450 Corrections To Violations of River Environmental Overlay Zone Development Standards

The recommended regulations for corrections to violations match the regulations that currently govern violations of standards in the Environmental Overlay zones. The regulations are intended to facilitate timely remediation for damage to resources and functional values that occur as a result of a violation.

This is a new chapter. For ease of readability the text is not underlined.

- g. If more than 10 trees, shrubs or groundcover plants are used to meet the above standard, then no more than 50 percent of the trees, shrubs or groundcover plants may be of the same genus. If more than 40 trees, shrubs or groundcover plants are used, then no more than 25 percent of the plants may be of the same genus;
- h. Trees must be a minimum ½-inch caliper or bareroot unless they are oak or madrone, which may be one gallon size. No more than ten percent of the trees may be oak or madrone. Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent;
- i. The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met; and
- j. Mitigation carried out to meet these standards may be installed in conjunction with planting carried out to meet the Vegetation Enhancement Standard of 33.475.120, 220, or 320, but plantings installed as mitigation will be in addition to what the vegetation standard requires, and will not be subject to the cost limitations described in 33.475.120.D, 33.475.220.D, or 33.475.320.D.
- k. In lieu of meeting the mitigation standards of this paragraph, the applicant may chose to make a payment to the City. The payment will be directed to the River Restoration Program. The Bureau of Development Services shall adopt and maintain the mitigation fee-in-lieu payment schedule.

33.475.450 Corrections to Violations of River Environmental Overlay Zone Development Standards

- A. Purpose.** The purpose of the correction regulations is to ensure the timely restoration of natural resources and functional values that have been degraded due to a violation of the River Environmental overlay zone standards.

These regulations establish a process to determine which review requirements will be applied to remedy a violation that takes place in the River Environmental overlay zone. The type of review required depends on the circumstances of the violation. Section 33.475.450.B details methods for correcting such violations and Title 3 of the City Code details the enforcement penalties.

- B. Correction Options.** Applicants must choose one of the following options to correct environmental code violations.

1. When these options may be used.
 - a. If all of the following are met, the applicant may choose Option One, Option Two, or Option Three:
 - (1) No more than 12 diameter inches of trees were removed;
 - (2) No more than one Madrone 4 inches or less, Garry Oak 4 inches or less, or Pacific Yew 2 inches or less was removed;
 - (3) No ground disturbance occurred riverward of the top of bank of the Willamette River or within 30 feet of the top of bank of a stream, wetland or other water body;

This is a new chapter. For ease of readability the text is not underlined.

(Pages 70 and 71 intentionally left blank)

This is a new chapter. For ease of readability the text is not underlined.

(Pages 72 and 73 intentionally left blank)

This is a new chapter. For ease of readability the text is not underlined.

(Pages 74 and 75 intentionally left blank)

This is a new chapter. For ease of readability the text is not underlined.

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Commentary

33.475.460 Removal or Remediation of Hazardous Substances

The regulations in this section apply to removal or remediation of hazardous substances. The goal of these regulations is ensure that these cleanup actions do not unnecessarily impair river-dependent and river-related uses or natural resources.

Oregon State Law (ORS 465.315(3)) governs whether local requirements, such as the River Plan, apply to state approved cleanups. The onsite portion of a state approved cleanup may be exempt from the procedural requirements of the Code to obtain local permits. What constitutes the onsite portion of the remedial action is generally identified in the record of decision or other cleanup approval or selection documents.

When a cleanup activity is exempt from local procedures, the person conducting the cleanup is required to ensure that the local government's substantive requirements are met. The Bureau of Development Services implements what it calls an "exempt process" for evaluating hazardous substance removal or remediation plans compliance with the City's substantive regulations. The regulations in this section are the City's substantive requirements for clean ups that are applied through the exempt permit process or the standard permit process if the cleanup project is not exempt. Cleanup conducted under state law in a City right of way is not exempted and must comply with all applicable City requirements.

Under federal law (42 U.S.C. 9621 (e)(1)), EPA has its own process for determining the extent to which substantive requirements of City Code will be considered in a federal approved cleanup.

The requirements are intended to refine the cleanup design to be in conformance with City requirements and the Oregon Statewide Planning Goals particularly Goal 15: the Willamette Greenway. Goal 15 includes requires protection of significant fish and wildlife habitats, protection of natural vegetative fringe along the river, and setbacks from the river for non-water related or non-water dependent uses. The regulations have been written in a way that will provide the person conducting the cleanup and the regulating agency with the flexibility required to design the most appropriate removal or remediation action.

33.475.460.E.1 The North Reach is the City's working harbor. The zoning for most of the area requires that uses on riverfront sites be river-dependent or river-related—meaning the use must that rely on the river for waterborne transportation. This regulation is intended to ensure that, to the extent practicable, the removal or remediation of hazardous substances does not preclude river-dependent and river-related use of suitable riverfront sites. The City's objective is to ensure that the cleanup does not leave an otherwise suitable river front site unsuitable for marine terminals, docks, or other development or activities that are river-dependent or river-related.

This is a new chapter. For ease of readability the text is not underlined.

Clean Up of Contaminated Sites

33.475.460 Removal or Remediation of Hazardous Substances

- A. General.** The following regulations are substantive requirements that apply to actions taken to remove or remediate hazardous substances. All of the regulations must be met unless it demonstrated to be impracticable pursuant to subsection G, below.
- B. Where these regulations apply.** The regulations of this section apply to the portion of the site located within the boundaries of the removal or remediation action.
- C. Review procedure.**
1. Except as described in paragraph C.2, below, compliance with these regulations is processed through a Type II procedure.
 2. If the action to remove or remediate hazardous substances is subject to this Code but exempt from procedural requirements, the action must comply with the substantive requirements of these regulations to the extent required under state or federal law.
- D. Relationship to other regulations in this chapter.** Actions to remove or remediate hazardous substances that are approved or selected under Oregon or federal cleanup law are exempt from the procedural requirements of this chapter. When development is occurring in conjunction with actions taken to remove or remediate hazardous substances, but which is not in itself a remediation or removal action, then that development must meet all other applicable regulations and procedural requirements of this chapter. Remedial actions within City rights of way or not approved or selected by state or federal cleanup authorities must meet all other applicable regulations and procedural requirements of this chapter. A person conducting a cleanup otherwise exempted from the procedural requirements may choose to obtain a permit.
- E. Regulations that apply to all actions to remove or remediate hazardous substances.** The following regulations apply to all proposals for the removal or remediation of hazardous substances:
1. The removal or remedial actions and the final remedy must not preclude the use of the site consistent with the uses allowed by the base zone or an approved conditional use. If the site is within the River Industrial overlay zone, the final remedy must allow the use of the site for river-dependent or river-related industrial activities unless the site is found to be unsuitable for river-dependent or river-related uses. Generally, this means that the final remedy must allow dredging necessary to establish or maintain navigation to and from riverfront sites, the placement of piles or dolphins, or the development of a marine industrial facility, dock, or wharf or other river-dependent or river-related structure; and

Commentary

33.475.460.E.2 Goal 15 requires that buildings be separated from the river. The City's river setback (called greenway setback outside of the North Reach) requires that development in the river general and river recreational zones be set back 50 feet from the top of bank. This regulation is intended to ensure that the setback standard can be implemented at the time of development or redevelopment.

33.475.460.F.1 The requirements of this subsection are aimed at encouraging the person conducting the cleanup to design a remedy that leaves identified natural resource areas intact as much as possible. The City is aware that this will not be possible in all cases, and therefore requires re-vegetation when ground disturbance and native plant removal cannot be avoided. The re-vegetation requirements are modeled on the Pleasant Valley Natural Resource overlay zone mitigation planting requirements. The tree replacement requirement is similar to requirements in the environmental overlay zones and the Pleasant Valley Natural Resource overlay zone.

This is a new chapter. For ease of readability the text is not underlined.

2. Buildings, structures and equipment installed in the River General or River Recreational overlay zones for the purpose of removing or remediating hazardous substances must not be located within or riverward of the river setback. The river setback is described in Sections 33.475.210 and .310. When designing and locating buildings, structures or equipment the person conducting the cleanup must take into account the purpose of the setback standard which is to keep structures away from the river, and reserves space for development of the greenway trail in cases where the greenway trail is designated on the site.

F. Regulations that apply to actions to remove or remediate hazardous substances that occur in specific areas. The following regulations apply to actions to remove or remediate hazardous substances based on specific locations:

1. The following regulations apply to areas within the River Environmental overlay zone landward of the top of bank:
 - a. Disturbance of the ground outside of the actual soil removal areas and removal of native vegetation must be avoided. If avoiding disturbance or native vegetation removal is not practicable, disturbance and removal must be minimized.
 - b. Where ground disturbance or removal of native vegetation cannot be avoided, the area must be replanted. The replanting standards are as follows:
 - (1) Nuisance and prohibited plants identified on the *Portland Plant List* must be removed within the area to be replanted and within 10 feet of any plantings;
 - (2) Plant density. The replanting area must meet one of the following plant and planting density standards:
 - One tree, three shrubs, and four other plants are required to be planted for every 100 square feet of replanting area. Trees may be clustered. Plants must be selected from the Portland Plant List and must be compatible with the conditions of the site; or
 - One tree and three shrubs are required for every 100 square feet of replanting area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the Portland Plant List and must be compatible with the conditions of the site;
 - (3) Plant diversity. If more than 10 trees, shrubs or groundcover plants are used to meet the above standard, then no more than 50 percent of the trees, shrubs or groundcover plants may be of the same genus. If more than 40 trees, shrubs or groundcover plants are used, then no more than 25 percent of the plants may be of the same genus;

Commentary

This is a new chapter. For ease of readability the text is not underlined.

- (4) Plant size. Trees must be a minimum ½-inch caliper or bareroot unless they are oak or madrone, which may be one gallon size. No more than ten percent of the trees may be oak or madrone. Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent; and
 - (5) The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.
- c. Tree replacement. Trees that are 4 inches or greater in diameter that are removed must be replaced as follows:
- (1) Ratio. One diameter inch of tree must replace every one inch of tree removed. Every diameter inch of evergreen tree removed must be replaced with an equal number of inches of evergreen tree;
 - (2) Size. The replacement trees must be a minimum ½-inch diameter;
 - (3) Type. The replacement trees must be native trees selected from the *Portland Plant List*;
 - (4) Location. All replacement trees must be planted within the River Environmental overlay zone, within 50 feet of the River Environmental overlay zone, or within 50 feet of the top of bank of the Willamette River in the North Reach. The person conducting the cleanup must own the property where the trees are planted or have an easement or deed restriction sufficient to ensure the success of the tree planting; and
 - (5) Replacement trees can be counted toward meeting the requirements of subsubparagraph F.1.b(2), above.
- d. All vehicle areas and construction staging areas installed for purposes of conducting the removal and remediation actions must be removed from the River Environmental overlay zone when they are no longer necessary for remedy construction. All such areas must be removed by the time the project is complete and the areas must be replanted according to the standards of subparagraph F.1.b, above.

Commentary

33.475.460.F.2.a If the river bank will be altered significantly as a result of the removal or remediation of hazardous substances, the City requires that the bank be restored using soil bioengineering instead of engineered inert materials to the extent practicable. The City's priority is a natural bank that can sustain vegetation for soil stabilization, improve ecological values and provide riparian functionality. However, the City recognizes that there will be cases when bioengineering will not be practicable. If rock armoring is used on the bank, the City requires re-grading to a slope level that will allow vegetation to be maintained, and requires that live willow or dogwood stakes be planted between the rocks to provide a minimum level of vegetative cover.

This is a new chapter. For ease of readability the text is not underlined.

2. The following regulations apply to the area between the top of bank and the ordinary high water mark:
 - a. When there is significant alteration of the area between the top of bank and the ordinary high water mark the regulations of this subparagraph must be met. A significant alteration is an alteration that affects a substantial portion of the bank, includes more than 50 cubic yards of excavation or fill, changes the ground contours, results in the removal of buildings, or requires significant engineering or in-water work. Minor bank alterations such as installation of monitoring wells, sampling cores, installation of extraction systems, repair and maintenance of storm water systems, removal of debris, temporary road access to the shoreline, relatively small amounts of grading and fill, and installation of temporary erosion control measures do not constitute significant alteration.
 - (1) The area between the top of bank and the ordinary high water mark where the alteration occurs must be designed using biotechnical techniques including soil bioengineering. Figures 475-8 and 475-9 show examples of biotechnical techniques. If the person conducting the cleanup stabilizes the river bank using biotechnical techniques, additional development on the site will be exempt from meeting the Vegetation Enhancement Standard in 33.475.120, .220, or .320. In addition to using biotechnical techniques, the following requirements apply:
 - Rock armoring or other hard surface armoring methods must not be used in substantial amounts on the surface between the top of bank and the Ordinary High Water Mark. This is not intended to preclude using rock or other hard surface stabilization methods below the surface if necessary to contain hazardous substances or to preclude the use of rocks or gravel as part of the biotechnical technique;
 - The bank must be sloped or terraced in a way that allows the establishment and maintenance of vegetation as the primary soil stabilization method;
 - Large wood, including root wads, tree boles and logs, must be used to reduce localized erosion, improve bank stabilization, and improve ecological values; and
 - At least eighty percent of the area between the top of bank and the ordinary high water mark that is being altered as a result of the remedy must be planted with shrubs. At least one tree must be planted for every 400 square feet of altered area. All of the area that is not planted with shrubs or trees must be fully covered with ground cover plants. All plants must be selected from the Portland Plant List and should be appropriate for the conditions on the site. The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.

This is a new chapter. For ease of readability the text is not underlined.

- (2) If biotechnical techniques are not practicable and rock armoring is used on the surface between the top of bank and the Ordinary High Water Mark, then the slope of the bank must be shallow enough to allow a combination of rock and vegetation. At a minimum, live native willow or dogwood stakes should be planted in the interstices between the rocks at a ratio of three stakes for every square yard of rock armoring.
- b. When there is a minor alteration to the area between the top of bank and the ordinary high water mark, the regulations of paragraph F.1, above apply.
3. In the area that is riverward of the Ordinary High Water Mark, the substrate must be natural. If a natural substrate is not practicable and a hard treatment is necessary, the project must incorporate as many of the following as practicable:
 - a. Provide shallow beaches in the near shore area. Shallow means zero to 20 feet deep measured from the ordinary low water mark;
 - b. Avoid a submerged slope that would require engineered treatments to remain stable such as a slope steeper than 1:7 (rise to run ratio);
 - c. Integrate large wood, or other natural wave deflection structures or techniques that mimic the function of large wood, into the near-shore environment. Rock armoring, chemically treated wood, articulated block, and industrial debris is discouraged;
 - d. Avoid in-water structures that will impact the navigation channel; and
 - e. Consider water access to abutting upland industrial sites and avoid in-water structures that will preclude river-dependent or river-related development from accessing and utilizing the river for transport, transfer and conveyance of goods and materials to and from the upland site.

G. Demonstration of Impracticability. A person conducting a cleanup may be exempted from full compliance with a requirement in this section if the person demonstrates that compliance with the regulation is not capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project remedial purposes. The person must still comply with that requirement to the extent practicable and remains subject to all other applicable requirements.

Commentary

Figures 475-8 and 475-9 The examples that accompany this subsection were developed as part of a bank design charrette conducted by River Plan staff and attended by biologists, bank design experts, landscape architects, and City, state and federal agency representatives.

Commentary

33.248.090.D Landscape Area Preparation

This is a new subsection that was recently adopted by City Council, and will be effective as of July 1, 2010. The subsection ensures that nuisance groundcovers and shrubs are removed from all required mitigation areas in the city, and that nuisance trees are removed from mitigation areas in the Environmental Overlay Zones, Pleasant Valley Natural Resource overlay zone, River Natural overlay zone, and River Water quality overlay zone. The amendment adds the River Environmental overlay zone to the list of zones where nuisance trees must be removed.

33.258.070.D.2.a(6) Nonconforming Development

What is nonconforming development?

Nonconforming development exists where a site met all the regulations at the time it was developed but does not meet the current regulations because of subsequent changes to the Zoning Code. For example, many parking lots were built before Portland required landscaping. Such development is "grandfathered in," meaning that it can remain so long as there are no changes to the site.

What are upgrades to nonconforming development?

Upgrading nonconforming development means bringing it closer to compliance with the current regulations.

When are such upgrades required?

If an owner is making alterations to the site, upgrading nonconforming development may be required. This upgrade is typically required when the alterations cross a certain dollar threshold. Some items are exempt from the threshold, meaning they do not count toward the threshold. These can include improvements that are required by City regulations, such as seismic upgrades, or improvements that contain a substantial public benefit, such as earthquake upgrades or stormwater management facilities.

In keeping with the kinds of exemptions described above, Planning Commission recommends exempting actions to remove or remediate hazardous substances from the threshold that triggers nonconforming upgrades because the clean up of hazardous substances has substantial public benefit.

Language to be **added** is underlined
 Language to be **deleted** is shown in ~~strikethrough~~

33.248.090 Mitigation and Restoration Plantings

A.-C. No change

D. Landscaped Area Preparation. All new required mitigation areas must be cleared of groundcovers and shrubs listed on the Nuisance Plants List. If the site is within the Environmental Overlay Zone, the Pleasant Valley Natural Resource Overlay Zone, and the River Natural Overlay Zone, and the River Water Quality Overlay Zones, or the River Environmental Overlay Zone in the Greenway Overlay Zone, then trees listed on the Nuisance Plants List must be removed from the required mitigation area.

E.-G. No change

33.258.070 Nonconforming Development

A.-C. No change

D. Development that must be brought into conformance.

1. No change
2. Nonconforming development with an existing nonconforming use, allowed use, limited use, or conditional use. Nonconforming development associated with an existing nonconforming use, an allowed use, a limited use, or a conditional use, must meet the requirements stated below. When alterations are made that are over the threshold of Subparagraph D.2.a., below, the site must be brought into conformance with the development standards listed in Subparagraph D.2.b. The value of the alterations is based on the entire project, not individual building permits.
 - a. Thresholds triggering compliance. The standards of Subparagraph D.2.b., below, must be met when the value of the proposed alterations on the site, as determined by BDS, is more than \$124,100. The following alterations and improvements do not count toward the threshold:
 - (1) Alterations required by approved fire/life safety agreements;
 - (2) Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;
 - (3) Alterations required by Chapter 24.85, Interim Seismic Design Requirements for Existing Buildings;
 - (4) Improvements to on-site stormwater management facilities in conformance with Chapter 17.38, Drainage and Water Quality, and the Stormwater Management Manual; ~~and~~
 - (5) Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements; and
 - (6) Removal or remediation of hazardous substances.

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CHAPTER 33.430 ENVIRONMENTAL ZONES

Map 430-13 The River Plan: North Reach Area Natural Resources Inventory

33.430.020 Environmental Reports

The application of the environmental zones is based on detailed studies that have been carried out within ~~eight~~ nine separate areas of the City. The City's policy objectives for these study areas are described in the reports. Each study report identifies the resources and describes the functional values of the resource sites. Functional values are the benefits provided by resources. The values for each resource site are described in the inventory section of these reports. The City has adopted the following ~~eight~~ nine environmental study reports:

- *bullets 1-8 no change*
- River Plan / North Reach

33.430.080 Items Exempt From These Regulations

The following items, unless prohibited by Section 33.430.090, below, are exempt from the regulations of this chapter. Other City regulations such as Title 10, Erosion Control, must still be met:

A.-C. No change

D. The following new development and improvements:

1. Planting of native vegetation listed on the *Portland Plant List* when planted with hand-held equipment. Temporary drip irrigation to the new plantings is allowed for up to 3 years;
- 2.-11. No change

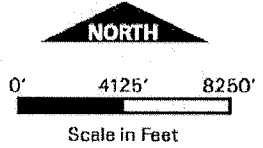
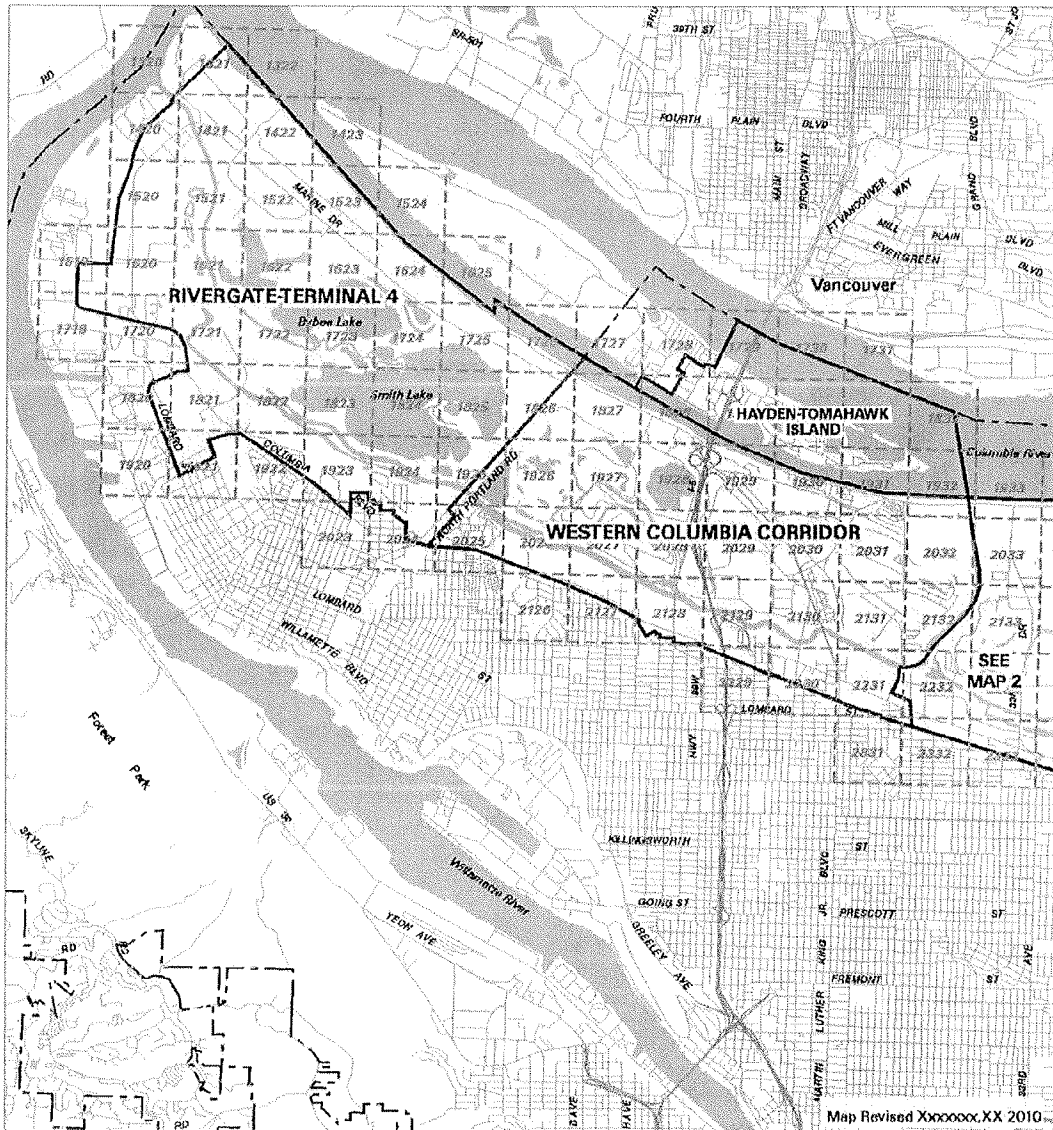
33.430.250 Approval Criteria

A. - D. No change

E. Other development in the Environmental Conservation zone or within the Transition Area only. In Environmental Conservation zones or for development within the Transition Area only, the applicant's impact evaluation must demonstrate that all of the following are met:

1. Proposed development minimizes the loss of resources and functional values, consistent with allowing those uses generally permitted or allowed in the base zone without a land use review or uses approved through a Conditional Use review;
- 2.-6. No change

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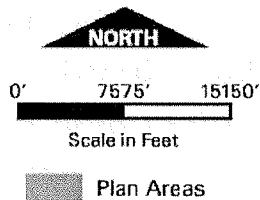
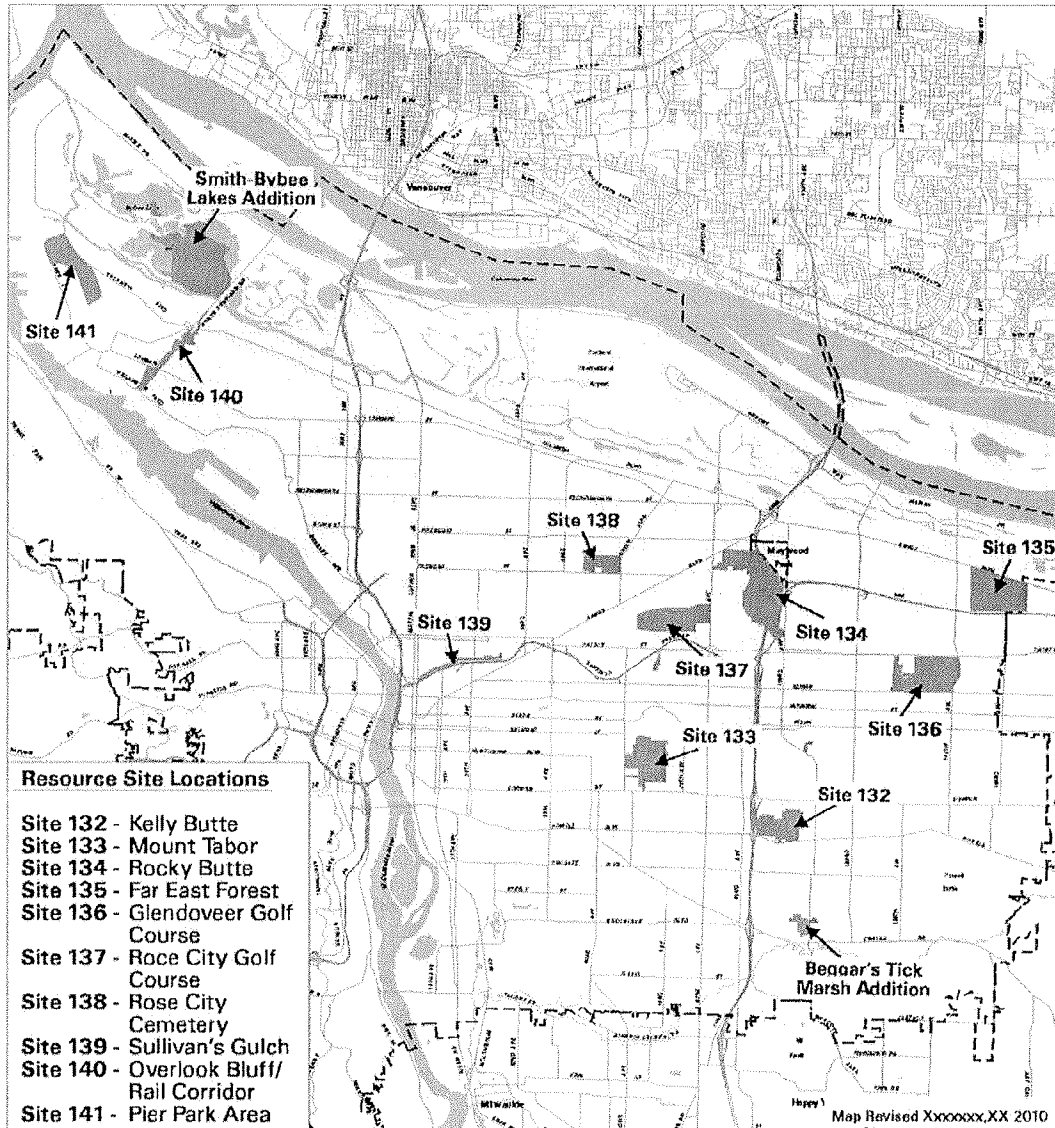
MAP NOTES: Small numbers within boxes represent quarter-sections

Map 430-2
Columbia Corridor Industrial and Environmental Mapping Project Area

Map 1 of 2

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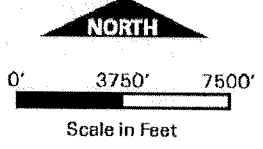
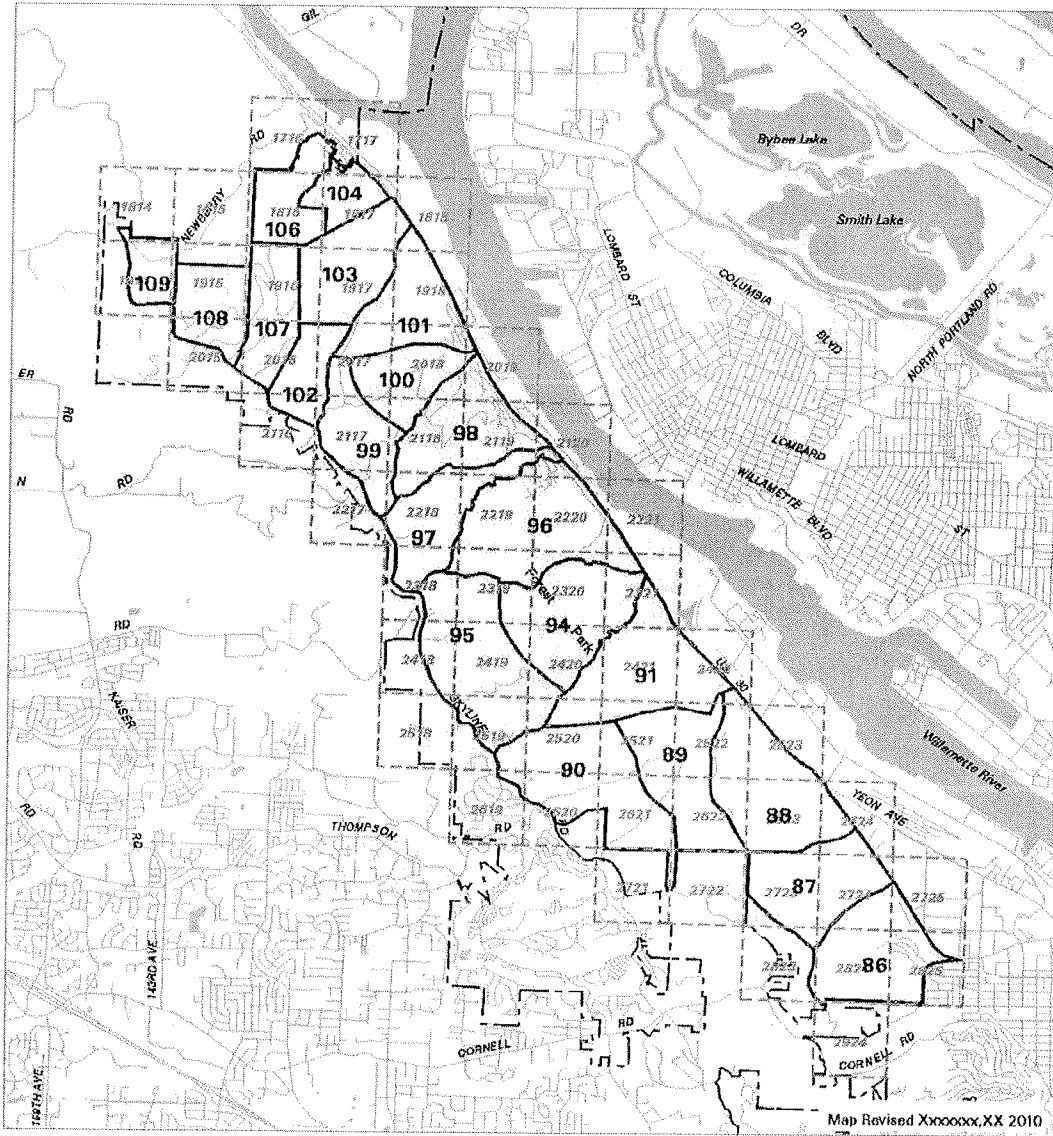
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 Language to be **deleted** is shown in ~~strikethrough~~



Map 430-3
East Buttes, Terraces and
Wetlands Conservation Area

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Language to be **deleted** is shown in ~~strikethrough~~

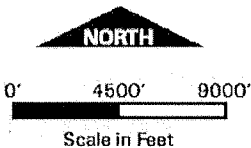
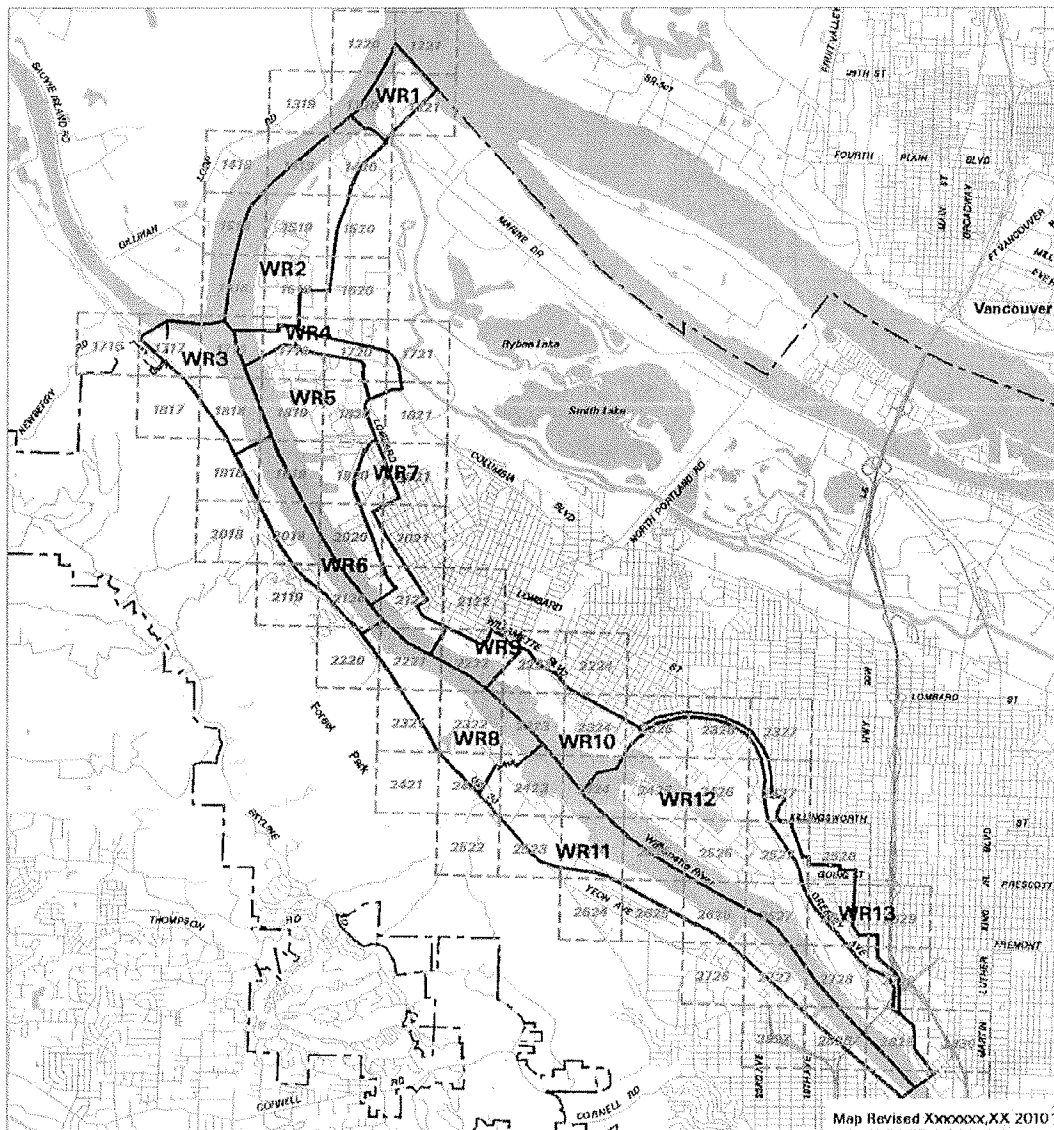


Map 430-6
Northwest Hills Natural Areas
Protection Plan Area

MAP NOTES: Small numbers within boxes represent quarter-sections

Bureau of Planning & Sustainability • City of Portland, Oregon

Language to be **added** is underlined>
Language to be **deleted** is shown in ~~strikethrough~~



Map 430-13

The River Plan: North Reach Area Natural Resources Inventory

MAP NOTES: Small numbers within boxes represent quarter-sections

Bureau of Planning & Sustainability • City of Portland, Oregon

Language to be **added** is underlined
Language to be **deleted** is shown in ~~strikethrough~~

- C. Removal or remediation of hazardous substances.** For projects limited to the removal or remediation of hazardous substances conducted under ORS 465.200 through 465.510 and 465.900, the regulations of this chapter apply only to the portion of the site located within the boundaries of the removal or remedial action areas, as delineated by the Department of Environmental Quality.
- D. Map symbols.** The greenway overlay zones are shown on the Official Zoning Maps with the following map symbols:

<u>Overlay Zone</u>	<u>Map Symbol</u>
River Natural	n
River Recreational	r
River General	g
River Industrial	i
River Water Quality	q

33.440.050 Relationship to State and Federal Reviews

In addition to any City requirements, all development within or riverward of the greenway setback, including fills, ~~must be approved~~ may be regulated by the Oregon Division of State Lands and the U.S. Army Corp of Engineers. City approval does not imply approval by these agencies

33.440.060 Sunset Provision

The River Water Quality Overlay Zone will be deleted from the Zoning Code when revised Willamette River Greenway regulations are adopted.

33.440.100 Use-Related Restrictions

- A. Generally.** In most cases, the greenway zones do not restrict primary uses that are allowed in the base zones by right, with limitations, or as a conditional use. Exceptions to this are in the River Recreational, ~~River Industrial,~~ and River Water Quality zones. The restrictions on uses are stated in Subsection B. below. The location of development for an allowed use is regulated by the development standards below. **Any** changes to the land associated with the use are subject to greenway review unless exempted. See 33.440.310 and 33.440.320 below.
- B. Use restrictions.**
 - 1. River Recreational zone. Primary uses in the River Recreational zone are limited to recreational uses which are river-dependent or river-related.
 - ~~2. River Industrial zone. In the River Industrial zone, river dependent and river related primary uses are allowed by right on sites that front the river. Primary uses that are not river dependent or river related may be allowed on sites that front the river if they are approved through greenway review. They must comply with the approval criteria of 33.440.350.B. below. There are no special use restrictions on sites that do not have river frontage.~~

This is a new chapter. For ease of readability the text is not underlined.

33.860.020 When a Comprehensive Natural Resource Plan Is Allowed

A Comprehensive Natural Resource Plan is allowed as an alternative to Environmental Review, Pleasant Valley Resource Review, or River Review for sites that are fully or partially within one or more of the following natural resource overlay zones:

- A. Environmental Protection;
- B. Environmental Conservation;
- C. Pleasant Valley Natural Resource; or
- D. River Environmental.

33.860.030 Duration of a Comprehensive Natural Resources Plan

The Comprehensive Natural Resource Plan must include proposed development and possible future development that might occur within the next 10 years. An approved resource plan remains in effect until development allowed by the plan has been completed or the plan is amended or superseded.

33.860.040 Procedure

A Comprehensive Natural Resource Plan is processed through a Type III procedure. Some proposals in a Comprehensive Natural Resource Plan may be identified as tentatively approved, and subject to an additional Type 1 procedure at a later date. The additional review will evaluate more detailed proposals and ensure conformance with the plan.

33.860.050 Amendments to a Comprehensive Natural Resource Plan

Amendments to a Comprehensive Natural Resource Plan are required for any development within the boundaries of the River Environmental, Pleasant Valley Natural Resources, environmental conservation, or environmental protection overlay zones that is not in conformance with the approved Comprehensive Natural Resource Plan. Amendments are not required for development listed as exempt from the relevant overlay zone regulations. Amendments are subject to the same approval criteria as the initial resource plan, plus the additional criteria in 33.860.200. The thresholds and procedures for amendments are stated below.

- A. **Type III procedure.** Unless the resource plan specifically provides differently, the following amendments to a resource plan are processed through a Type III procedure:
 - 1. Any proposed development within the environmental protection overlay;
 - 2. A proposed reduction in the area of the environmental protection overlay;
 - 3. Proposed development to be added to the site that was not included in the original resource plan;
 - 4. Substantial changes to conditions of approval; and
 - 5. Proposed development that was previously reviewed, but was denied because it was found not to be in conformance with the approval criteria.

This is a new chapter. For ease of readability the text is not underlined.

CHAPTER 33.865 RIVER REVIEW

Sections:

- 33.865.010 Purpose
- 33.865.020 When River Review is Required
- 33.865.030 Procedure
- 33.865.040 Supplemental Application Requirements
- 33.865.100 Approval Criteria
- 33.865.110 Modification of Site-Related Development Standards
- 33.865.120 Corrections to Violations of the River Environmental Overlay Zone Standards
- 33.865.200 Use of Performance Guarantees
- 33.865.210 Special Evaluations by a Trained Professional

33.865.010 Purpose

River Review is intended to:

- Provide a mechanism for evaluating the suitability of river front sites in the River Industrial Overlay Zone for river-dependent or river-related uses;
- Protect, conserve and enhance identified resources and functional values in the River Environmental overlay zone, compensate for unavoidable significant detrimental impact to those resources and functional values, and ensure the success of mitigation and enhancement activities;
- Help the City meet existing and future requirements pursuant to federal and state laws including the Clean Water Act, the Safe Drinking Water Act, the Endangered Species Act, the Migratory Bird Treaty Act, and the National Flood Insurance Act;
- Provide flexibility for unusual situations. River Review allows for evaluation of alternative development scenarios that may have less detrimental impact on protected resources, and allows for the evaluation of off-site mitigation proposals;
- Provide a mechanism for the evaluation of detailed, site-specific information on the location or quality of resources and functional values;
- Provide a mechanism for modifying the location of the River Environmental overlay zone to reflect permitted changes in the location or quality of resources and functional values.
- Provide for the replacement of resources and functional values that are lost through violations of the River Environmental overlay zone standards;
- Provide a mechanism to modify the River Environmental overlay zone standards of Chapter 33.475, River Overlay Zones; and
- Allow for modifications to site-related development standards when modification will result in greater resource protection.

This is a new chapter. For ease of readability the text is not underlined.

33.865.020 When River Review is Required

River Review is required in the following situations:

- A. When an applicant proposes a non river-dependent or non river-related primary use in the River Industrial Overlay Zone;
- B. When a development or regulated activity in the River Environmental overlay zone is not exempt from the River Environmental overlay zone regulations and either does not meet the standards of subsection 33.475.430.B or there are no development standards applicable to the proposal;
- C. When River Review is required to correct a violation of the River Environmental overlay zone regulations, as described in subsection 33.475.450.B.4;
- D. When an applicant wishes to fine tune the boundary of the River Environmental overlay zone based on a detailed environmental study that more accurately identifies the location and quality of resources and functional values. Minor boundary changes are allowed through River Review. Map error corrections are reviewed under 33.855.070, Corrections to the Official Zoning Maps, and removal of the River Environmental overlay zone is processed as a change of overlay zone as stated in 33.855.060, Approval Criteria for Other Changes; or
- E. To modify the boundary of River Environmental overlay zone to reflect permitted changes in the location or quality of resources or functional values. The River Review zone boundary change procedure does not apply to changes caused by violations of subsection 33.475.430.B.

33.865.030 Procedure

A River Review is processed through a Type IIX procedure, except as described in subsection 33.475.450.B when River Review is required to correct a violation of the River Environmental overlay zone regulations.

33.865.040 Supplemental Application Requirements

In addition to the application requirements of Section 33.730.060, the following information is required when the River Review application is for development in the River Environmental overlay zone, or for modification of the River Environmental overlay zone boundary:

- A. **Supplemental site plan requirements.** One copy of each plan must be at a scale of at least one inch to 40 feet. Site plans must show existing conditions, conditions prior to a violation (if applicable), proposed development, and construction management. A mitigation site plan is required when the proposed development will result in unavoidable significant detrimental impact on the identified resources and functional values ranked high or medium in the *Willamette River Natural Resource Inventory*. A remediation action site plan is required when significant detrimental impacts occur in violation of the Code and no permit was applied for. The Director of BDS may waive items listed in this subsection if they are not applicable to the specific review; otherwise they must be included. Additional information such as wetland characteristics or soil type may be requested through the review process.

This is a new chapter. For ease of readability the text is not underlined.

- d. All area where ground disturbance and vegetation removal will occur; and
 - e. Location and species of existing tree, shrubs and ground covers to remain;
3. A construction management site plan must show the following:
- a. All area where ground disturbance and vegetation removal will occur including equipment maneuvering areas;
 - b. Proposed grading plan with existing and proposed contours. The grading plan must show proposed alteration of the ground at 2-foot vertical contours in areas of slopes less than ten percent and at 5-foot vertical contours in areas of slopes ten percent or greater;;
 - c. Location of excavation and fill and total quantities of each;
 - d. Areas where existing topography and vegetation will not be affected by the development proposal;
 - e. Identification of trees to be removed using a bold X and the location of trees to remain including the required root protection zone;
 - f. Location of site access and egress;
 - g. Equipment and material staging and stockpile areas;
 - h. Erosion control measures; and
 - i. Measures to protect trees and vegetation.
4. An on-site or off-site mitigation or remediation site plan must show the following
- a. Distribution outline, species composition, and percent cover of ground covers to be seeded or planted;
 - b. Distribution outline, species composition, size, and spacing of shrubs to be planted;
 - c. Location, species, and size of each tree to be planted;
 - d. A planting table listing all trees, shrubs, groundcover or seeds to be installed including the ratio of seeds to area to be planted, species name (common and scientific), number, size and spacing;
 - e. The area of the mitigation site in square feet;
 - f. Stormwater management features, including retention, infiltration, detention, discharges, and outfalls;

This is a new chapter. For ease of readability the text is not underlined.

- g. Water bodies to be created, including depth;
- h. Water sources to be used, including volumes; and
- i. Information showing compliance with Section 33.248.090, Mitigation and Restoration Plantings.

B. Supplemental narrative. The following is required:

1. Impact evaluation. An impact evaluation is required to determine compliance with the approval criteria, and to evaluate practicable development alternatives for a particular site. The alternatives must be evaluated on the basis of their impact on identified resources and functional values. Significant resources and functional values are identified in the *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)*, and a supplemental environmental assessment can be provided to more accurately identify resources and functional values on the site. In the case of a violation, the impact evaluation is used to determine the nature and scope of the significant detrimental impacts.

a. An impact evaluation includes:

- (1) Identification, by characteristic and quantity, of the resources and their functional values found on the site. The *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)* provides site-specific information on natural resource features including:
 - open water;
 - shallow water (river depth 0-20 feet);
 - beach;
 - riparian vegetation;
 - upland and bottomland forest;
 - grassland;
 - flood area and floodplain;
 - wetlands, streams and ponds; and
 - special habitat area.

This is a new chapter. For ease of readability the text is not underlined.

The *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)* provides site-specific information on the functional values provided by the various natural resource features including:

- Microclimate and shade;
- Stream flow moderation and water storage;
- Bank function, and sediment, pollution and nutrient control;
- Large wood and channel dynamics;
- Organic inputs, food web and nutrient cycling;
- Fish and wildlife habitat;
- Habitat connectivity/movement corridor;

The *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)* also provides information on special status species, which include wildlife or plants identified by Oregon Department of Fish and Wildlife, Oregon Natural Heritage Information Center, US Fish and Wildlife Service, or NOAA National Marine Fisheries Service that are known or reasonably expected to occur within or use a site. The application must contain current information regarding any special status species known or expected to occur on the site;

- (2) Identification of significant detrimental impacts on identified resources and functional values that are unavoidable. Actions that could cause detrimental impacts and should be identified include:
 - excavation and fill both in the water and above the ordinary high water mark. The quality and source of fill material is an important factor to be considered;
 - clearing and grading;
 - construction;
 - vegetation removal;
 - altering bathymetry;
 - altering a vegetated riparian corridor or upland vegetated area;
 - altering the floodplain;
 - altering the temperature of the river especially the altering of existing cold water sources;
- (3) Evaluation of practicable alternative locations, design modifications, or alternative methods of development that both achieve the project purpose, taking into account cost and technology, and minimize significant detrimental impacts on identified resources and functional values; and
- (4) Determination of the practicable alternative that best meets the applicable approval criteria.

This is a new chapter. For ease of readability the text is not underlined.

- b. An impact evaluation for a violation includes:
 - (1) Description, by characteristics and quantity, of the resources and functional values on the site prior to the violation; and
 - (2) Determination of the impact of the violation on the resources and functional values.
2. Biological assessment. A biological assessment developed for the purposes of a federal or state permit may be submitted in place of some or all of the impact evaluation if the biological assessment includes the information described in subparagraph B.1, above. In the event that the applicant submits a biological assessment in place of some or all of the impact evaluation, the applicant must identify which aspects of the impact evaluation are covered by the biological assessment and, if necessary, identify which pieces of information will be included in the impact evaluation.
3. Supplemental environmental site assessment. A site-specific environmental assessment, prepared by a qualified consultant, to more precisely determine the existence, location, type, extent, and quality of the natural resources and functions on the site can be provided as part of the supplemental narrative. The assessment may verify, supplement, or challenge the information in the City's inventory for the purpose of informing the impact evaluation and identifying mitigation obligations;
4. Construction management plan. Identify measures that will be taken during construction or remediation to protect the remaining resources and functional values at and near the construction site and provide a description of how areas that are not affected by the construction will be protected. For example, describe how trees will be protected, erosion controlled, construction equipment controlled, and the timing of construction; and
5. Mitigation or remediation plan. The purpose of a mitigation or remediation plan is to compensate for unavoidable significant detrimental impacts on identified resources and functional values that result from the chosen development alternative or violation. A mitigation or remediation plan includes:
 - a. Resources and functional values to be restored, created, or enhanced within mitigation or remediation area. If credits will be purchased from a City certified mitigation bank, the mitigation plan must identify the total number and the type of credits being purchased;
 - b. Documentation of coordination with appropriate local, regional, special district, state, and federal regulatory agencies;
 - c. Construction timetables;
 - d. Operations and a long-term maintenance plan;
 - e. Monitoring and evaluation procedures that include periodic reporting;

Commentary

33.865.100.A River frontage lots in the River Industrial Overlay Zone

This approval criterion must be met when an applicant wants to develop a site in the River Industrial overlay zone with a use that is not river-dependent or river-related. In order meet the criterion, the site must be found to be unsuitable for river-dependent or river-related uses. The criterion describes the types of constraints that could render a site unsuitable for river-dependent or river-related use. The parameters of the criterion are limited to physical characteristics that diminish the feasibility of improving the site for barge or ship access.

33.865.100.B Development within the River Environmental Overlay Zone

The approval criteria for development within the River Environmental overlay zone are intended to protect and conserve the natural resources and functional values that exist in the overlay zone. The approval criteria are modeled on the environmental conservation overlay zone approval criteria and will allow development to occur as long as the applicant can show that all other practicable alternatives to locating development in the resource area have been explored and are not practicable within the context of project purpose. In cases where development will occur and resource values will be diminished, mitigation is required to compensate for the loss of function due to the development. These approval criteria are not modeled on the environmental protection zone criteria because precluding all development at the river's edge would have significant detrimental impacts on the economic functional values of the working harbor.

This is a new chapter. For ease of readability the text is not underlined.

- f. Remedial actions for unsuccessful mitigation;
- g. Information showing compliance with Section 33.248.090, Mitigation and Restoration Plantings; and
- h. If off-site mitigation is proposed, demonstration that on-site mitigation is not practicable or ecologically beneficial.

33.865.100 Approval Criteria.

Requests for a River Review will be approved if the review body finds that the applicant has shown that all applicable approval criteria have been met.

- A. River frontage lots in the River Industrial overlay zone.** In the River Industrial overlay zone, primary uses that are not river-dependent or river-related may locate on a site that fronts the river only when the site is found to be unsuitable for river-dependent or river-related uses. Evaluation factors for this determination include physical constraints such as insufficient moorage depth, barriers to moorage construction or dredging, or the improbability of the provision of street or rail access. Other suitability considerations include the size or dimensions of the site, impracticable river access or other physical characteristics that significantly impede the ability of the site to be developed with a river-dependent or river-related use.
- B. Development within the River Environmental overlay zone.** The applicant's impact evaluation must demonstrate that all of the following are met:
 - 1. Resource enhancement projects:
 - a. There will be no net loss of total resource area; and
 - b. There will be a significant improvement of at least one functional value.
 - 2. All other proposals in the River Environmental overlay zone:
 - a. Proposed development minimizes the loss of identified resources and functional values consistent with the uses that are generally permitted or allowed in the base zone without a land use review, or permitted or allowed by an approved conditional use;
 - b. Proposed development locations, designs, and construction methods have the least significant detrimental impact on identified resources and functional values of all practicable and significantly different alternatives, including alternatives on the same site but outside of the River Environmental overlay zone ;
 - c. There will be no significant detrimental impact on areas of the site reserved for mitigation, areas within the River Environmental overlay zone not proposed for development at this time, downstream river habitat within the North Reach, or other sites in the North Reach where environmental restoration is in progress or complete;

Commentary

33.865.100.B.2.d Mitigation

Mitigation for unavoidable impacts from development will be required for every River Review. Mitigation ensures that the benefits of the natural resources and functional values that currently exist in the North Reach are not lost over time.

The applicant will be required to show that the proposed mitigation compensates for all significant detrimental impacts to identified natural resources and functional values including the interim loss of resource area and functionality. Lost resource features and functions on the site will have to be fully replaced with in-kind resources, and any interim loss of functionality that will happen between the time the impacts occur and the time the mitigation site is mature will have to be addressed.

This reflects a policy of no-net-loss of resource features and functional values.

On-site mitigation opportunities must be explored first before off-site mitigation can be approved. On-site mitigation is a priority in cases where there is adequate space, and appropriate conditions exist to support successful mitigation. An adequate on-site mitigation area should be able to sustain on-going resource functionality and habitat connectivity without being negatively impacted by surrounding development. On-site opportunities will be evaluated within the context of existing, proposed and future development on the site.

There are three options for off-site mitigation:

1. The first option is for the applicant to develop a mitigation plan and implement it at one of the City's identified River Restoration Sites. In this case, the applicant will be required to demonstrate that they have sufficient legal control of the mitigation area to ensure that the mitigation is successful over the long-term. This option is limited to the City's identified River Restoration Sites because those sites have been identified as important for creating a network of key habitat areas in the North Reach. Mitigation at these site will ultimately be combined with restoration that the City implements over time.
2. The second option is to pay a fee-in-lieu of mitigation. City staff are in the process of developing a procedure for quantifying a fee-in-lieu for mitigation. The applicant will be required to provide information about the resources on the site in order for the City to determine the appropriate fee. The methodology for quantifying the mitigation requirement will be based on methodologies used by the federal government when assessing mitigation requirements. The first methodology is called Habitat Evaluation Procedure and is used by the U.S. Fish and Wildlife Service. The procedure is based on indicator species and uses models to calculate a score for the habitat area being evaluated. The HEP models are run and scores are derived for the site both before and after the development, or habitat alteration, occurs and the difference between the two scores represents the impact, or loss of habitat value, that must be mitigated for. The second methodology is called Habitat Equivalency Assessment and is used by the National Oceanic and Atmospheric Administration. HEA provides an analytical framework for estimating how much restoration is needed to compensate for the temporal loss of natural resources functions (i.e. the time between when the resource function is lost and the replacement habitat has grown into full function). The outcome of the HEA equation is typically an additional number of square feet/acres/credits of restoration necessary to compensate for the interim loss of the habitat. The fee-in-lieu option is a temporary option. It will expire in two years (July 2012) when the City hopes a mitigation bank will be up and running in the North Reach. The City use the these funds on activities directly associated with restoration (e.g., land acquisition, design, construction, and long-term maintenance).

This is a new chapter. For ease of readability the text is not underlined.

d. Mitigation:

- (1) The mitigation plan must demonstrate that all significant detrimental impacts on identified resources and functional values, and the interim loss of functional value will be compensated for. The amount of mitigation due as compensation will be based on the amount and relative condition of the resources and functional values impacted by the proposal, the extent to which the project design minimizes impacts, the uniqueness of the resources and functional values, and the time lag between when the resources and functional values are lost due to the impacts and the point when the mitigation site will achieve full function. To the extent practicable, the resources and functional values restored or enhanced as mitigation must be the same kind of resource, performing the same functional value as the lost resource.
- (2) Mitigation must occur on-site when practicable, and ecologically beneficial. Factors to be considered when evaluating this criterion include:
 - The potential for the long-term success of the restored resources and functional values in the mitigation area;
 - The amount, size, shape, and connectivity potential of on-site mitigation areas;
 - The location of the mitigation area in relation to existing, proposed or future development on the site, and the impact development may have on the mitigation area;
 - Contamination; and
 - Any other site specific issue or constraint.
- (3) If on-site mitigation is not practicable or ecologically beneficial, then off-site mitigation is allowed as follows:
 - At one of the City's identified River Restoration Sites. The identified River Restoration Sites are shown in the River Plan / North Reach Volume 1A. River Restoration Site #2, Kelly Point Park and Site # 6 Cathedral Park can not be used for mitigation by anyone other than the City of Portland. The applicant must own the area where the mitigation will occur, or possess a legal instrument that is approved by the City as sufficient to carry out and ensure the success of the mitigation plan (such as an easement or deed restriction);
 - Through payment of a mitigation fee-in-lieu. The Bureau of Development Services shall adopt and maintain the mitigation fee-in-lieu payment schedule. The mitigation fee-in-lieu option will expire two years after the implementation date of this provision; or
 - Through the purchase of mitigation credits from a City certified mitigation bank.

Commentary

33.865.100.B.2.d Mitigation (cont.)

3. The third option will be to purchase credits from a City certified mitigation bank. The City will develop a certification process for any private bank that wants to establish credits to sell in the North Reach.

33.865.100.B.2.e Other Regulatory Approvals

This approval criterion is intended to reduce the potential for the City to render decisions or conditions of approval that are duplicative or inconsistent with state and federal agencies that are reviewing the same proposal. One of the goals of the River Plan/North Reach is to improve regulatory efficiency and reduce instances when a City land use review decision or recommendation is at odds with or duplicative of decisions that are rendered by the Oregon Department of State Lands or the United States Army Corps of Engineers. That said, this approval criterion is not intended to obligate the City to render synonymous decisions, but the City must ensure that its decisions and recommendation do not undermine or contradict the decisions and recommendations of DSL or the COE. In most cases, meeting this approval criterion will require coordination with the state and federal agencies.

33.865.100.C Modifications to zone boundaries

These approval criteria are the same criteria used for modifications of Environmental Overlay zone boundaries and the boundary of the Pleasant Valley Natural Resource Overlay zone.

This is a new chapter. For ease of readability the text is not underlined.

- (4) In cases where the proposal is subject to mitigation as the result of obtaining permits from the Oregon Department of State Lands or the U.S. Army Corps of Engineers, the mitigation required for those permits can count toward meeting this mitigation requirement as long as that mitigation is found to adequately compensate for impacts to the identified natural resources and functional values.
- e. If other regulatory approvals have been obtained from the Oregon Department of State Lands or the U.S. Army Corps of Engineers, the conditions of approval for this River Review must not contradict, circumvent or otherwise undermine decisions made by those agencies.

C. Modification of River Environmental overlay zone boundaries. Modifications of River Environmental overlay zone boundaries that reflect permitted changes in the location or quality of resource areas will be approved upon finding that the applicant's statement demonstrates that either Paragraph C.1 or C.2 are met. For the minor modification of environmental zone boundaries based on a more detailed site specific environmental study, the applicant's impact evaluation must demonstrate that Paragraph C.3, below, is met:

- 1. Successful mitigation. An approved mitigation plan has been successful and a new, restored, or enhanced resource exists which should be included in the River Environmental overlay zone; or
- 2. Approved loss of resource area. All of the following must be met:
 - a. All approved development in a resource area has been completed;
 - b. All mitigation required of this development has been successful; and
 - c. The identified resources and functional values at the developed site no longer exist, or have been subject to a significant detrimental impact.

This is a new chapter. For ease of readability the text is not underlined.

3. Minor modification of River Environmental overlay zone boundaries based on a more detailed site-specific environmental study. The River Environmental overlay zone line location may be modified to more accurately reflect the location of natural resources and functional values on the site.

33.865.110 Modifications of Site-Related Development Standards

The review body may consider modifications to site-related development standards as part of the River Review process. These modifications are done as part of the River Review process and are not required to go through the adjustment process. Adjustments to use-related development standards (such as floor-area ratios, intensity of use, size of the use or concentration of uses) are subject to the adjustment process of Chapter 33.805. In order to approve these modifications, the review body must find that the development will result in greater protection of the resources and functional values identified on the site and will, on balance, be consistent with the purpose of the applicable regulations.

33.865.120 Corrections to violations of the River Environmental Overlay Zone Standards

For corrections to violations of the River Environmental development standards the application must meet all applicable approval criteria stated in Subsection 33.865.100.B, above, and Subsection A, and Paragraphs B.2 and B.3, below. If these criteria cannot be met, then the applicant's remediation plan must demonstrate that all of the following are met:

- A. The remediation is done in the same area as the violation; and
- B. The remediation plan demonstrates that after its implementation there will be:
 1. No permanent loss of any type of resource or functional value;
 2. A significant improvement of a least one functional value; and
 3. There will be minimal loss of resources and functional values during remediation until the full remediation program is established.

33.865.200 Performance Guarantees

The Director of BDS may require performance guarantees as a condition of approval to ensure mitigation or remediation. See Section 33.700.050, Performance Guarantees.

33.865.210 Special Evaluation by a Professional

A professional consultant may be hired to evaluate proposals and make recommendations if the Director of BDS finds that outside expertise is needed due to exceptional circumstances. The professional will have expertise in the specific resource or functional value or in the potential adverse impacts on the resource or functional value. A fee for these services will be charged to the applicant in addition to the application fee.

Language to be **added** is underlined.
 Language to be **deleted** is shown in ~~strikethrough~~.

33.900.010 List of Terms

The following terms are defined in Chapter 33.910, Definitions, unless indicated otherwise.

Dredge Material

Ordinary High Water Mark

33.910.030 Definitions

Bulkhead. A retaining wall along a waterfront.

Cargo conveyor. A cargo conveyor is an elevated conveyance system that is supported by one or more footings on the ground and is used to transfer material to and from a vessel in the river.

Environment-Related Definitions

- **Drainageway.** An open linear depression, whether constructed or natural, which functions for the collection and drainage of surface water. It may be permanently or temporarily inundated. Drainageways include sloughs. Road-side ditches are not drainageways unless the open channel is a segment of an existing stream or drainageway.
- **Dredge Material.** Rock, gravel, sand, silt and other inorganic substances removed from waters.
- **Ordinary High Water Mark.** That line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.
- **Stream.** An area where enough natural surface water flows to produce a stream channel, such as a river or creek, that carries flowing surface water during some portion of the year. This includes:
 - The water itself, including any vegetation, aquatic life, or habitat;
 - Beds and banks below the high water level which may contain water, whether or not water is actually present;
 - The floodplain between the high water level of connected side channels;
 - Beaver ponds, oxbows, and side channels if they are connected by surface flow to the stream during a portion of the year; and
 - Stream-associated wetlands.
 - Perennial stream. Stream that flows throughout the year; permanent stream;
 - Intermittent stream. Stream that flows only at certain times of the year, as when receiving water from springs or from a surface source; stream that does not flow continuously, as when water losses from evaporation or seepage exceed the available stream flow; and
 - Ephemeral stream. Stream or portion of stream that flows briefly in direct response to precipitation in the immediate vicinity, and with channels at all times above water table.
- **Top of Bank.** The first major change in the slope of the incline from the ordinary high water mark level of a water body. See Section 33.930.150, Measuring Top of Bank. A major change is a change of ten degrees or more. If there is no major change within a distance of 50 feet (measured horizontally) from the ordinary high water mark level, then the top of bank will be the default location described in Section 33.930.150, Measuring Top of Bank. the elevation 2 feet above the ordinary high water level.

Language to be **added** is underlined.
Language to be **deleted** is shown in ~~striketrough~~.

Changes to Other City Titles

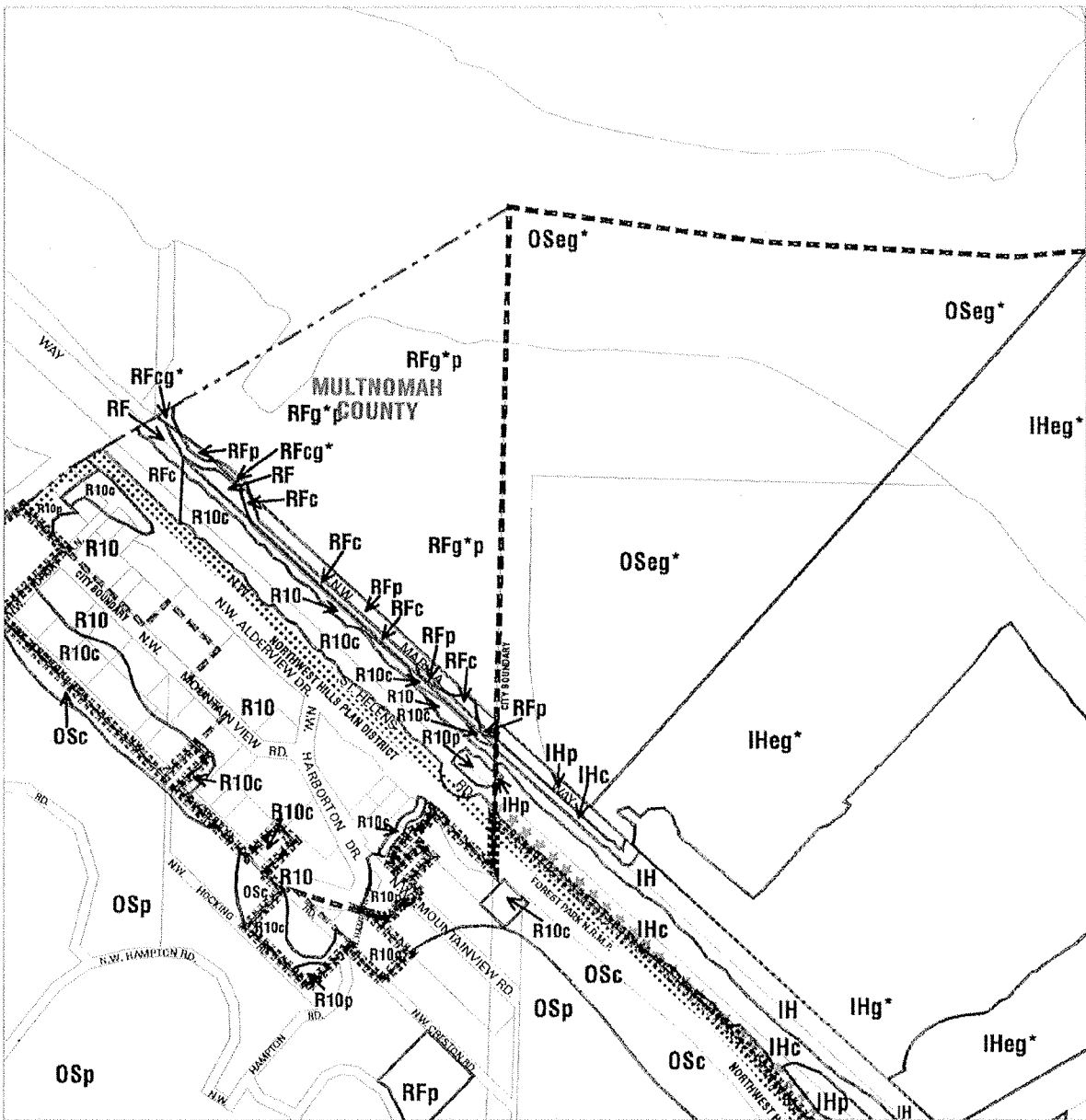
24.50.060 Provisions for Flood Hazard Reduction.

A-E. No change

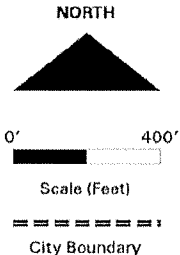
F.

1-7 No change

8. Balanced Cut and Fill Required. In all Flood Management Areas of the City not addressed by Section 24.50.060 G, balanced cut and fill shall be required. All fill placed at or below the base flood elevation shall be balanced with at least an equal amount of soil material removal. Soil material removal shall be within the same flood hazard area identified in Section 24.50.050 A. through I.
 - a. Excavation shall not be counted as compensating for fill if such areas will be filled with water in non-storm winter conditions.
 - b. Temporary fills permitted during construction shall be removed.
 - c. Payment allowed in lieu of balanced cut and fill. Properties within the North Reach Overlay Boundary (See Map 33.475-1) may elect to pay into the River Restoration Fund in lieu of creating a balanced cut and fill. The amount of the payment shall be determined by the Bureau of Development Services.



River Plan/North Reach Proposed Zoning
 Bureau of Planning - City of Portland, Oregon

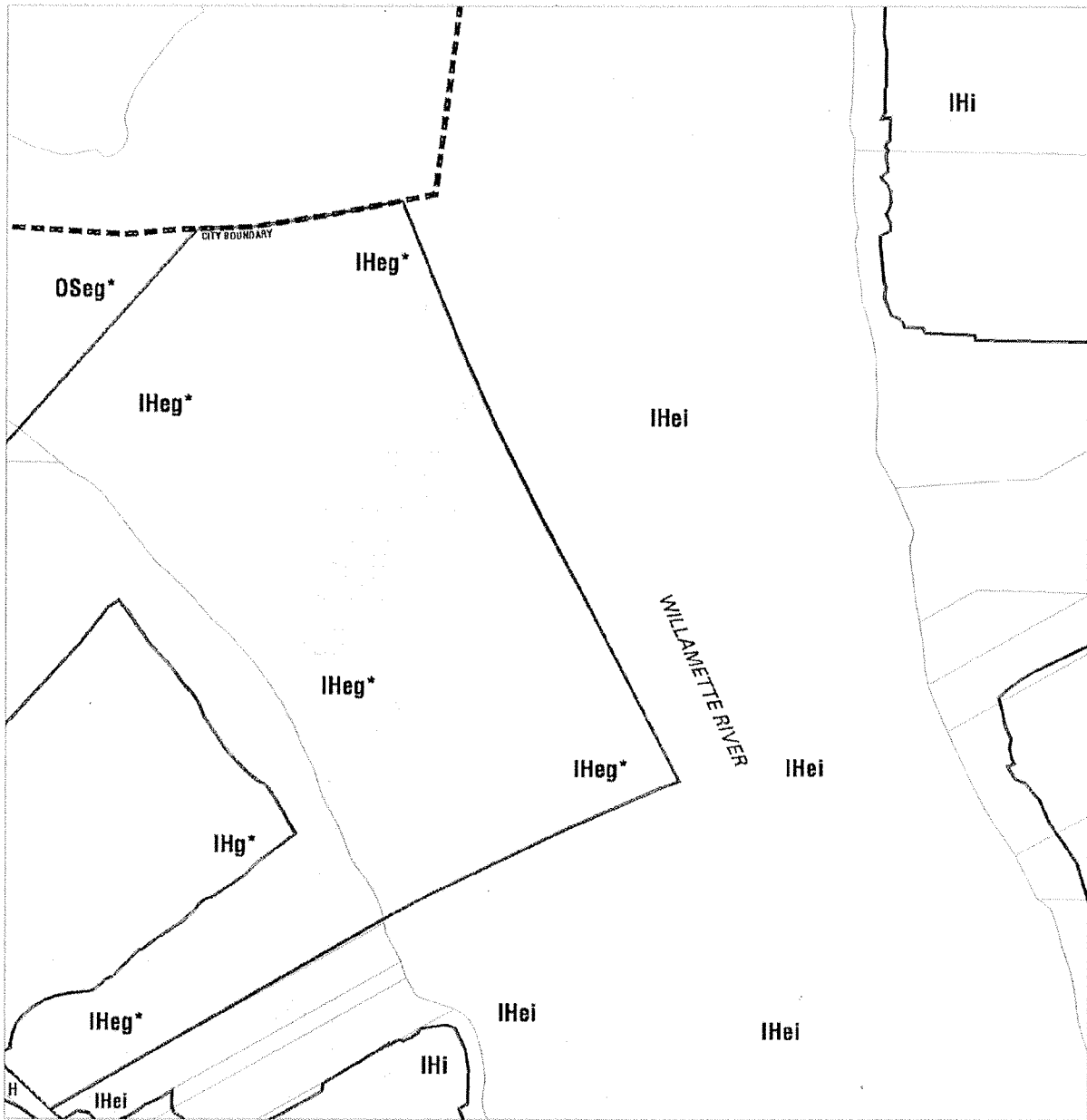


- i = River Industrial Zone
- g* = River General Zone
- r* = River Recreational Zone
- e = River Environmental Zone

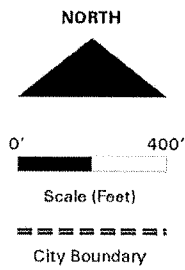
- c = Environmental Conservation Overlay
- p = Environmental Protection Overlay
- *** Public Trail
- Ordinary High Water Mark (O.H.W.M.) = area between arrows

February, 2010

Map 1/4 Section 1717



River Plan/North Reach Proposed Zoning
 Bureau of Planning - City of Portland, Oregon

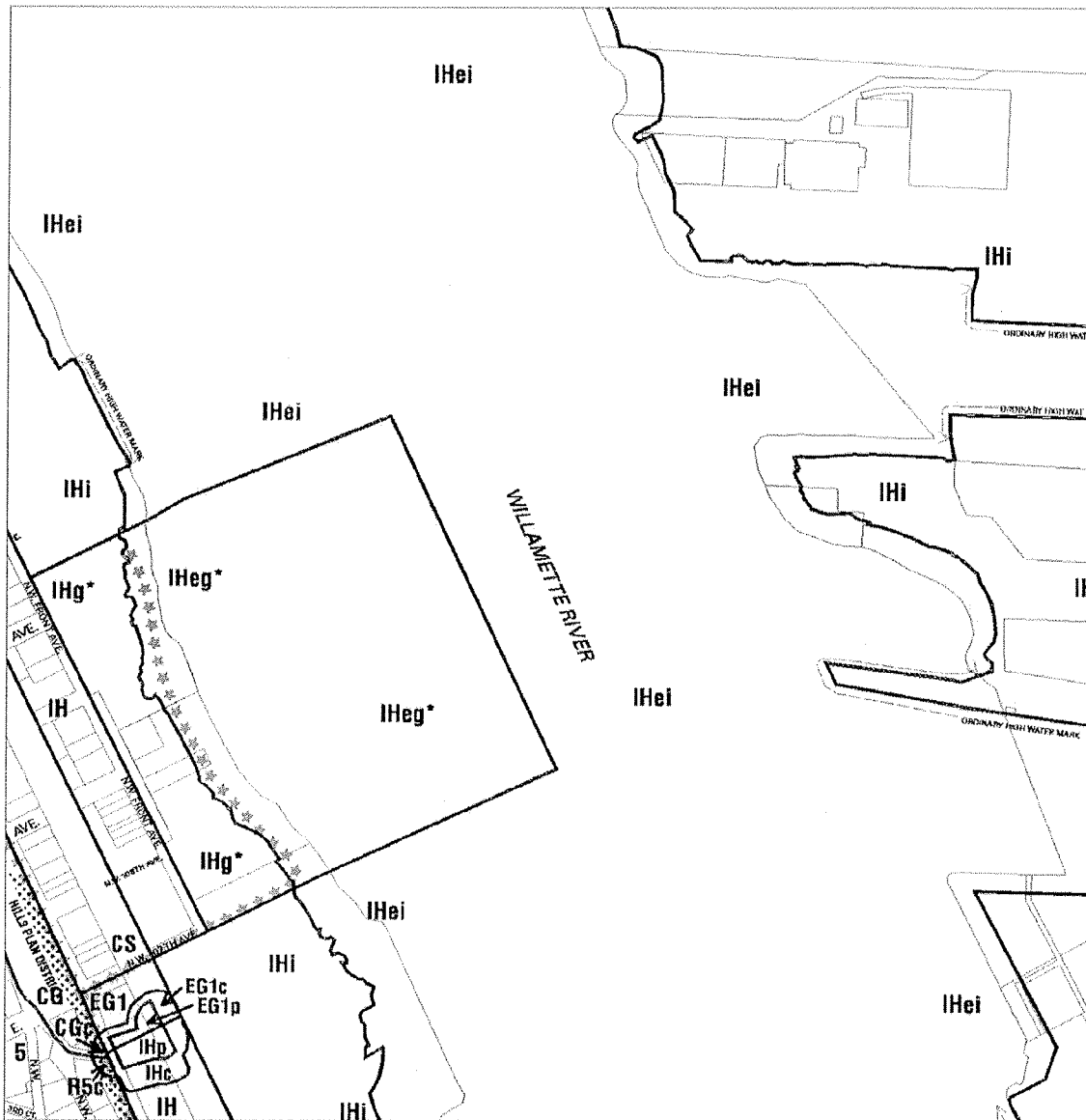


- i = River Industrial Zone
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- e = River Environmental Zone

- c = Environmental Conservation Overlay
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- *** Public Trail
- ← → Ordinary High Water Mark (O.H.W.M.)
 = area between arrows

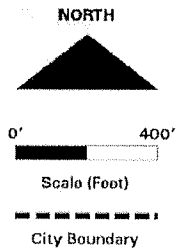
February, 2010

Map 1/4 Section 1718



River Plan/North Reach Proposed Zoning

Bureau of Planning - City of Portland, Oregon

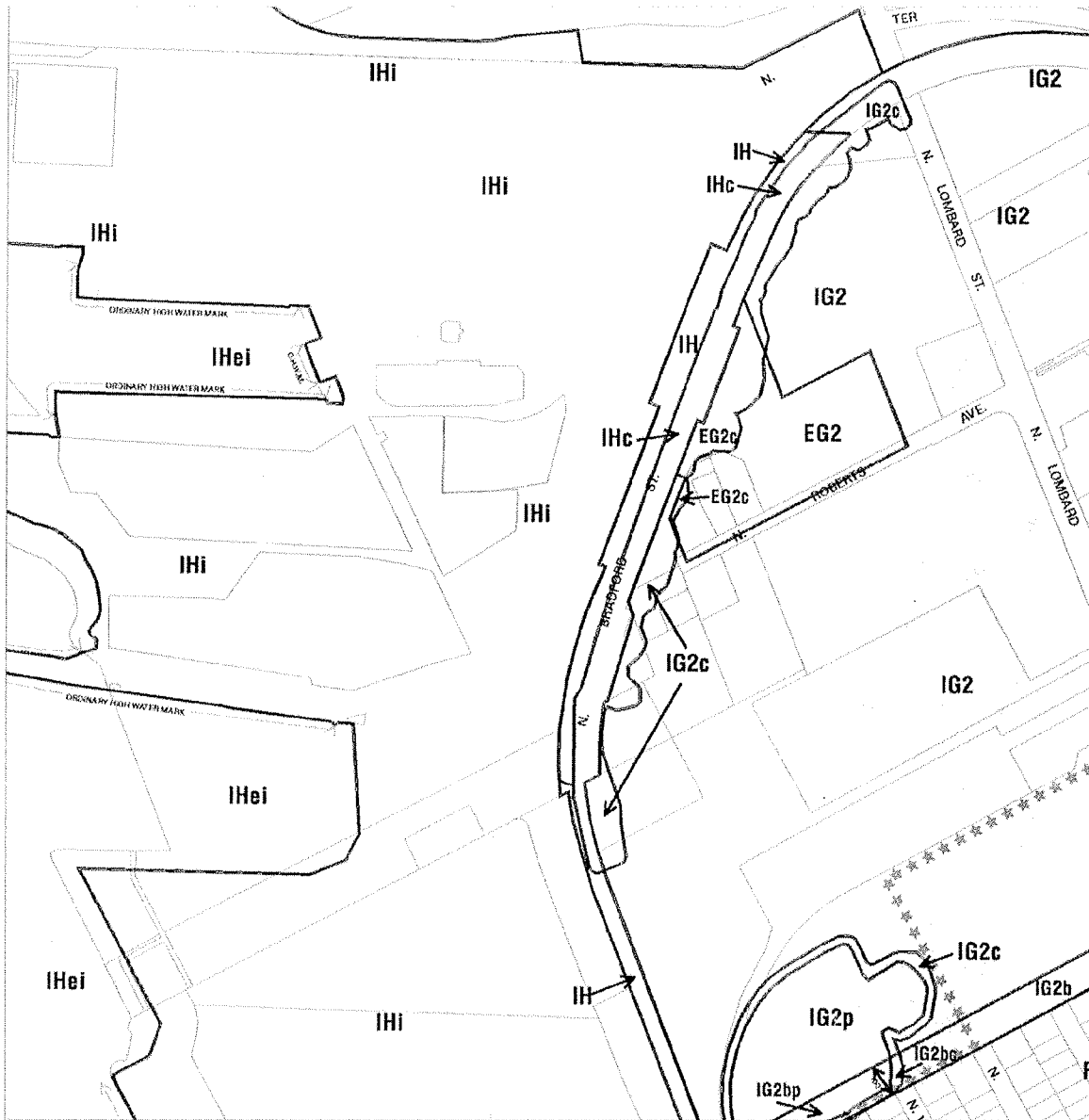


- i = River Industrial Zone
- g* = River General Zone
- r* = River Recreational Zone
- e = River Environmental Zone

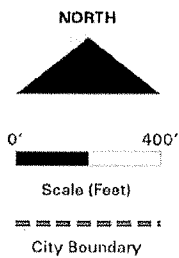
- c = Environmental Conservation Overlay
- p = Environmental Protection Overlay
- *** = Public Trail
- ← → = Ordinary High Water Mark (O.H.W.M.)
= area between arrows

February, 2010

Map 1/4 Section 1919



River Plan/North Reach Proposed Zoning
 Bureau of Planning - City of Portland, Oregon

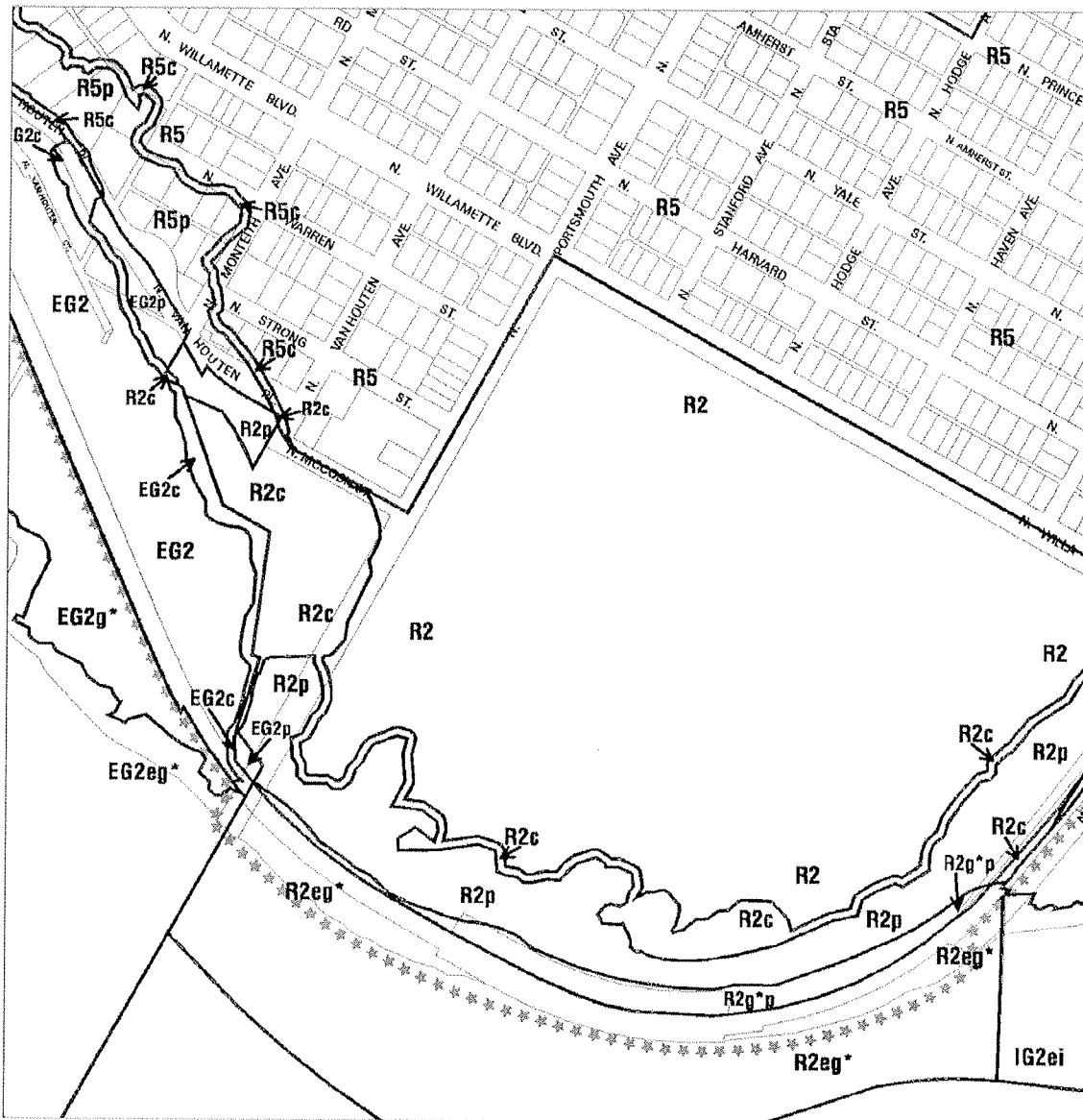


- i = River Industrial Zone
- g* = River General Zone
- r* = River Recreational Zone
- e = River Environmental Zone

- c = Environmental Conservation Overlay
- p = Environmental Protection Overlay
- *** Public Trail
- Ordinary High Water Mark (O.H.W.M.) = area between arrows

February, 2010

Map 1/4 Section 1920



River Plan/North Reach Proposed Zoning
Bureau of Planning - City of Portland, Oregon



City Boundary

- i = River Industrial Zone
- g* = River General Zone
- r* = River Recreational Zone
- e = River Environmental Zone
- c = Environmental Conservation Overlay
- p = Environmental Protection Overlay
- *** = Public Trail
- = Ordinary High Water Mark (O.H.W.M.) = area between arrows

February, 2010

Map 1/4 Section 2324

Part C. Amendments to Volume 3C

The following page is a replacement page for Volume 3 C. The amendments are shown in strikethrough and underline for the site-specific ESEE recommendation for the portion of Willamette Bluff located on University of Portland's campus near N McCosh Street. The full site-specific ESEE analysis can be found in River Plan North Reach Volume 3C: Economic, Social, Environmental and Energy Analysis, page 202-216.

Feature	Bluff near N McCosh Street, between intersection of N Portsmouth Avenue and N Van Houten Avenue N McCosh Street
WRNRI/ North Reach Relative Rank	High, Special Habitat Area
Characteristics	<ul style="list-style-type: none"> • Residential base zone • Bigleaf maple, Alder and Himalayan Blackberry provides upland habitat and wildlife connectivity along and to the Willamette River • Provides views of Willamette River and Forest Park and views looking eastward across the river as well • Wildfire and landslide hazards • University of Portland Conditional Use Master Plan (1994) designated a building footprint at the base of the slope • University of Portland is acquiring the Triangle Park property below the bluff and plans to expand the campus; an existing unnamed street provides access to the Triangle Park property at the base of the bluff
Willamette River North Reach General ESEE Decision	Strictly limit conflicting uses in high ranking resources areas and Special Habitat Areas in residential base zones
ESEE Implications	<p>The University of Portland campus is located above the bluff and owns portions of the bluff. The 1994 Conditional Use Master Plan approved a building/parking lot at the base of the bluff. The University intends to purchase and build facilities below bluff at the Triangle Park property. The social and transportation consequences of strictly limiting development in this area are <u>would be</u> negative. <u>A strictly limit decision could prevent or reduce due to the potential educational, cultural, recreation and access opportunities of an improved link between the upper and future lower campus and the Willamette River. The potential environmental impacts of conflicting uses, while negative, are relatively small minimized due to the disturbance associated with the existing unnamed street that fragments the bluff vegetation and contributes to slope instability.</u></p> <p><u>A limit decision on the bluff below N McCosh Street between N. Van Houten Avenue and N Portsmouth Avenue would provide options to link the upper campus to the future lower campus, and to utilize existing public roads for safe access and egress. A limit decision would require impacts on the natural resources to be avoided where practicable or mitigated.</u></p>
Site-Specific ESEE Decision	Limit conflicting within the bluff surrounding the unnamed street connecting the campus to the Triangle Park property near the intersection of N Portsmouth Ave and N McCosh Street