Memorandum

To: Planning Commission
From: Shannon Buono
Subject: Zoning Code Updates

Tonight you are receiving three updated chapters of the River Plan/North Reach proposed code. The three chapters are:

- 33.475 River Overlay Zones
- 33.583 St. Johns Plan District (the River Plan only affects a portion of the St. Johns Plan District)
- 33.865 River Review

The revisions within these three chapters were outlined by staff at the February 24, 2009 Planning Commission meeting. Many of the major policy issues that were identified in the February 24, 2009 comment packets are addressed in these chapters.

After the public hearing on April 14, 2009, staff will make final changes to the code proposals and provide those to you for your work session on May 12, 2009.

Attachments
**Proposed Code Amendments**

This section contains proposed amendments to two City Codes. Some of these amendments apply to the North Reach only, while other amendments apply to other areas of the City as shown on the following table.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Area of Application</th>
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<tbody>
<tr>
<td>33.475</td>
<td>River Overlay Zones</td>
<td>North Reach</td>
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<tr>
<td>33.840</td>
<td>Greenway Goal Exception</td>
<td>North Reach and Greenway</td>
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<tr>
<td>33.860</td>
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<tr>
<td>33.865</td>
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**Amendments to Existing Zoning Code Chapters**

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<td>33.430</td>
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<td>33.440</td>
<td>Greenway Overlay Zones</td>
<td>Greenway</td>
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<tr>
<td>33.583</td>
<td>St. Johns Plan District</td>
<td>North Reach</td>
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<td>33.585</td>
<td>Swan Island Plan District</td>
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<td>33.700</td>
<td>Administration and Procedures</td>
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<td>33.810</td>
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<tr>
<td>33.910</td>
<td>Definitions</td>
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<td>33.930</td>
<td>Measurements</td>
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**Amendments to Other City Codes**

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<th>Code</th>
<th>Title</th>
<th>Area of Application</th>
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<tbody>
<tr>
<td>24.50.060</td>
<td>Provisions for Flood Hazard Reduction</td>
<td>Citywide</td>
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</table>
Chapter 33.475, River Overlay Zones replaces Chapter 33.440, Greenway Overlay zones within the North Reach of the Willamette River. Eventually, the River Overlay zones will replace the Greenway Overlay zones within the Central and South Reaches of the Willamette River. The change will be made over time as the River Plan project continues planning for the future of the river. In the interim, the River Overlay zones will govern development and redevelopment in the North Reach, while the Greenway Overlay zones will continue to govern development and redevelopment in the Central and South Reaches.

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

Because of the complexity of the regulations being proposed for the North Reach, they will likely need to be in use for a period of time before their effectiveness can be fully assessed. The Bureau of Planning and Sustainability anticipates that some issues could emerge during the first few years of implementation that would warrant refinements to the code to better achieve the legislative intent. To that end, staff recommends that the Bureau of Planning and Sustainability and the Bureau of Development Services work together on a two-year work program to monitor implementation of these regulations. The monitoring process will include regular reporting to the Planning Commission and could result in future code changes or changes to programs that help implement the legislative intent of the River Plan. Monitoring reports provided to the Planning Commission will be provided to the neighborhood coalition offices and other interested parties.
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 Application Requirement
River Industrial Overlay Zone
33.475.100 Use Regulation
33.475.110 Nonconforming Uses
33.475.120 River Bank Restoration
33.475.130 IG2 Minimum Landscape Area
33.475.140 Land Divisions and Property Line Adjustments
River General Overlay Zone
33.475.200 Use Regulation
33.475.210 River Setback
33.475.220 River Bank Restoration
33.475.230 IG2 Minimum Landscape Area
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River Recreational Overlay Zone
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33.475.330 IG2 Minimum Landscape Area
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River Environmental Overlay Zone
33.475.400 Use Regulation
33.475.405 Environmental Report
33.475.420 When River Review is Required
33.475.430 Items Allowed Without River Review
33.475.450 Corrections to Violations
River Bank Restoration
33.475.460 River Bank Restoration Standards
Clean Up of Contaminated Sites
33.475.480 Removal or Remediation of Hazardous Substances

33.475.010 Purpose
The River Overlay zones promote the protection, conservation, 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 that are conducted under ORS 465.200 through 465.545 and 465.900 and are exempt under ORS 465.315.
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 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 (2008). 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 which 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 sets of regulations apply to the separate overlay zones and specifies that the regulations for the removal and remediation of hazardous substances are the only regulations in this chapter that apply when a clean up action is conducted under the authority of the Oregon Department of Environmental Quality.
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:

<table>
<thead>
<tr>
<th>Overlay Zone</th>
<th>Map Symbol</th>
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<tbody>
<tr>
<td>River Industrial</td>
<td>i</td>
</tr>
<tr>
<td>River General</td>
<td>g*</td>
</tr>
<tr>
<td>River Recreational</td>
<td>r*</td>
</tr>
<tr>
<td>River Environmental</td>
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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 Plan 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.

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 33.475.480 apply to actions taken to remove or remediate hazardous substances that are conducted under ORS 465.200 through 465.545 and 465.900 and are exempt under ORS 465.315. 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 does not imply approval by other agencies.

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. A building permit or development permit application that is reviewed for compliance with the standards of the River Environmental overlay requires more information. The information in paragraphs 1 and 2 must be submitted with permit application plans. Submission of the information in paragraph 3 is optional.

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. All trees that are more than four inches in diameter must be indicated by size and species. Trees outside of the area where ground disturbance and vegetation removal will occur as a result of the project may be shown as general crown cover with an indication of species composition; and

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. 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, and any proposed utility work;

b. Location and description of all proposed erosion control devices;

c. A stormwater management facilities; and

d. A landscaping plan indicating the size, species, and location of all vegetation to be planted.

e. Identification of the number and kinds of credits being purchased from the River Restoration Program’s bank.

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 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 in this case because they do not address uses that are nonconforming because they are not river-dependent or river-related.

**33.475.120 River Bank Restoration**
River bank restoration is required on every site that has river frontage in the North Reach. In the river industrial overlay zone the requirement that 50 percent of the bank be restored reflects the fact that more of the river bank in the zone will be used for river-dependent and river-related development than in the other river overlay zones. The restoration standards can be found in section 33.475.460.

**33.475.130 IG2 Minimum Landscaped Area**
Staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program in lieu of meeting the minimum landscape area standard in the IG2 zone. The minimum landscape standard requires that 15% of a site be landscaped. Adjustments to this standard have been approved recently facilitating expansions of businesses that are located on constrained sites in the IG2 zone in the North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment.
River Industrial Overlay Zone

33.475.100 Use Regulation
On sites that have river frontage, primary uses must be river-dependent or river-related uses. Primary uses that are not river-dependent or river-related are allowed on a riverfront site only if approved through a River Review. On sites that do not have frontage on the river, the use regulations are those of the base zone.

33.475.110 Nonconforming Uses

A. When these regulations apply. Nonconforming uses are subject to the regulations of Chapter 33.258, Nonconforming Situations. The regulations of this section apply to uses that are nonconforming because they are not river-dependent or river-related and are located on sites that have frontage on the river. The regulations of this section are in addition to the regulations of 33.258 unless otherwise specified below.

B. Continued operation. The nonconforming use may continue.

C. Change of use. The nonconforming use may change to an allowed use. The nonconforming use may change to another use that is nonconforming because it is not river-dependent or river-related when approved through River Review. If the proposed use is also a nonconforming use in the base zone, the change is also subject to 33.258.050, Nonconforming Uses.

D. Expansion. Expansion of the nonconforming use is limited to the area bounded by the property lines of the use as they existed on [effective date of this regulation]. The expansion is exempt from the regulations of 33.258.050.C, Expansions.

33.475.120 River Bank Restoration

A. Purpose. The purpose of requiring that the river bank be restored within the North Reach is to enhance the natural resource and functional values of lands along the Willamette River. The requirement can be met by improving the function of a portion of the river bank on a site or paying a fee in-lieu of conducting on-site restoration.

B. River bank restoration. On sites that have river frontage, 50 percent of the river bank must meet the requirements of section 33.475.460, River Bank Restoration Standards.

33.475.130 IG2 Minimum Landscape Area

A. General. In lieu of meeting the required minimum landscaped area standard in the IG2 zone, applicants may choose to make a payment as described below. See 33.140.225 for the minimum landscaped area standard for the IG2 zone.
Commentary

33.475.130.B Payment in lieu of landscaping
The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 standard, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. Land in the harbor districts is currently estimated to have a value of $7.00 per square foot. The formula for land value in this regulation is intended to represent one-half the actual value, therefore the value is $3.50 (one half of $7.00).

33.475.140 Land Divisions and Property Line Adjustments
Uses on river front sites in the River Industrial overlay zone are limited to river-dependent and river-related uses. In the past, land divisions and property line adjustments have been approved that resulted in eliminating river frontage from large sites in the River Industrial overlay zone. The proposed regulations are intended to ensure that land divisions and property line adjustments are not used as a way to avoid the use limitation in the River Industrial overlay zone.

The additional lot dimension standards will ensure that new lots have adequate access to the river front thereby ensuring that lots remain viable for river-related and river-dependant uses and development. The minimum river frontage length of 350 feet corresponds to the average length of dock structures currently used by river-related and river-dependent uses along the Willamette River in the North Reach. The minimum lot depth of 175 feet is intended to provide the area needed for loading and unloading of cargo, allow room for rail lines, conveyors and other infrastructure needed to accommodate river-related or river-dependant development.

The first exception allows flexibility in cases where a smaller lot will still be able to accommodate the required river-dependent or river-related use. In this case, the applicant will be required to provide a site plan or other similar drawing showing how the use will incorporate river-dependent or river-related development within the proposed dimensions. The second exception is for cases when a lot has been determined to be unsuitable for river-related and river-dependant uses.

The limitation on river frontage in a tract is intended to ensure that the river front in the River Industrial overlay zone remains buildable because tracts are not buildable. This limitation has one exception. A tract can be created to accommodate a public stormwater facility as long as BES dictates the route of service and the stormwater tract does not significantly impact the ability of the remaining site or lots to accommodate river-dependent or river-related uses.
B. Payment in lieu of landscaping. The amount of the payment is based on the cost the applicant would have incurred if choosing to comply with the minimum landscaped area standard, and half the cost of the land that, instead of being landscaped, is now available for development. The contribution amount will be rounded up to the next multiple of $10. The formula for the payment is:

\[ L \times (A/50) + (A \times \$3.50) = \text{Amount of contribution} \]

Where \( L \) is the cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet; and \( A \) is the square footage of required landscaped area.

The cost to purchase and plant the landscape material is determined by the Director of the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. This cost will be adjusted each July 1 by the BES Director to reflect current market prices.

33.475.140 Land Divisions and Property Line Adjustments

A. Purpose. These regulations ensure that land divisions and Property Line Adjustments on sites with river frontage result in lots that can be used by river-dependent or river-related uses, while providing flexibility for unusual situations.

B. Where these regulations apply. These regulations apply to land divisions and Property Line Adjustments where any portion of the site is in the River Industrial overlay zone, and where any portion of the site has river frontage. Land divisions must meet the regulations in Subsections C and D. Property Line Adjustments must meet the regulations in Subsections C, D, and E. These regulations are in addition to other regulations of this Title.

C. Lot dimension regulations. Lots proposed through a land division must meet the standards of C.1. Modification of these standards may be approved through either River Review or Land Division Review, subject to the approval criteria in C.2. Property Line Adjustments must meet the standards of C.1:

1. Lot dimension standards:
   a. Minimum river frontage. Each lot in the River Industrial overlay zone must have at least 350 feet of river frontage. If a site does not have 350 feet of river frontage before the land division or Property Line Adjustment, the land division or Property Line Adjustment may not cause the property to move further out of conformance with this standard.
   b. Minimum lot depth. Each lot with river frontage must be at least 175 feet deep, measured from the midpoint of the river frontage to the opposite lot line. If the site is not 175 feet deep before the land division or Property Line Adjustment, the land division or Property Line Adjustment may not cause the property to move further out of conformance with this standard.
2. Approval criteria for modification of lot dimension standards:
   a. Land Division Review criteria. The lot is of a size and shape that can reasonably accommodate a river-dependent or river-related use and its associated development; or
   b. River Review criteria. The site is unsuitable for a river-dependent or river-related use.

D. Tracts.

1. Generally. No portion of the river frontage may be placed in a tract; the river frontage must be entirely within lots.

2. Exception. A portion of the river frontage can be within a tract for a public stormwater management facility as long as BES approves the route of service for the stormwater facility and the majority of the river frontage on the land division site remains within lots.

E. Property Line Adjustments. Property Line Adjustments may not result in a lot or lot of record that is in more than one River Overlay zone, unless the second overlay is the River Environmental overlay zone.
33.475.210 River Setback

OAR 660-015-0005 and Goal 15 require that a setback line be established to keep structures separated from the river. However, the requirement does not apply to "water-related or water-dependent uses". The existing greenway regulations require that development be setback 25 feet from the top of bank. The setback does not apply to development such as buildings, structures, storage areas, and equipment that is river-dependent and river-related development. The setback does apply to building, equipment and structures that are not river-dependent or river-related.

One of the main goals of the River Plan/North Reach is to revise existing regulations where reasonable so that property owners in the working harbor have the flexibility to expand and redevelop on site. To meet this goal, staff proposes to eliminate the setback from the River Industrial overlay zone. The River Industrial overlay zone requires that uses on riverfront sites be river-dependent or river-related. The purpose of the zone is to reserve space for harbor related uses and this purpose is implemented by ensuring that the businesses on riverfront sites use the river to transport goods. Many riverfront sites in the North Reach are constrained and applying the current setback can limit a property owner's ability to use the site in an efficient manner. The proposed change is appropriate only in the River Industrial overlay zone. The River Industrial overlay zone is located only in the working harbor and long standing City policy supports maintaining a thriving harbor.

The river setback will continue to apply in the River General and the River Recreational overlay zones in the North Reach. Staff proposes to increase the setback to 50 feet from the top of the bank of the Willamette River (the existing greenway setback is 25 feet from the top of bank). A 50 foot setback is more in keeping with current thinking about urban form in relation to the river. The setback in South Waterfront is 100 feet. The setback also provides a buffer between development and the river system. The Bureau of Environmental Services recommends that development be setback at least 50 feet from the top of bank so that the natural functions of the riparian area and the river can thrive. The setback also provides space for the greenway trail.

The setback is based on the location of the top of bank. The definition and measurement of top of bank has been problematic. Staff proposes to amended the definition and add a new section regarding how to measure the top of bank.
River General Overlay Zone

33.475.200 Use Regulation
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, 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 river bank restoration carried out to meet section 33.475.460 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 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

[Diagram showing river setback and distance from top of bank]
33.475.210.E Encroachment into the setback. One of the main goals of the River Plan/North Reach is to revise regulations where reasonable so that property owners in the working harbor have the flexibility to expand and redevelop on site. As a corollary to the staff proposal to increase the setback from top of bank from 25 feet to 50 feet, staff also recommends allowing non-river-dependent and non-river-related development to encroach into the setback as long as the setback is enlarged an amount equal to the square footage of the encroachment. This change will allow flexibility in the regulation while ensuring that the average setback remains 50 feet from top of bank. The regulations will also stipulate that at no point can development encroach closer than 25 feet from top of bank.
D. Development standards.

1. Development landward of the river setback. Development, exterior alterations, excavations, and fills landward of the river setback are not required to be river-dependent or river-related.

2. Development within or riverward of the river setback. Development, exterior alterations, excavations, and fills within or riverward of the river setback must be river-dependent or river-related. Development, exterior alterations, excavations, or fills that are not river-dependent or river-related are allowed within or riverward of the river setback only if approved through a Greenway Goal Exception. Adjustments and modifications are prohibited.

E. Encroachment into the setback. Development that is not river-dependent or river-related may encroach into the river setback as long as the setback is increased by an amount of square footage equal to the encroachment. At no point can development that is not river-dependent or river-related encroach closer than 25 feet from top of bank unless approved through a Greenway Goal Exception. See figure 475-2.
33.475.220 River Bank Restoration
River bank restoration is required on every site that has river frontage in the North Reach. In the river general and river recreational overlay zones the requirement that 80 percent of the bank be restored reflects the fact that most development will be setback from the top of bank. The restoration standards can be found in section 33.475.460.

33.475.230 IG2 Minimum Landscaped Area
Staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program in lieu of meeting the minimum landscape area standard in the IG2 zone. The minimum landscape standard requires that 15% of a site be landscaped. Adjustments to this standard have been approved recently facilitating expansions of businesses that are located on constrained sites in the IG2 zone in the North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment.

33.475.230.B Payment in lieu of landscaping
The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 standard, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. Land in the harbor districts is currently estimated to have a value of $7.00 per square foot. The formula for land value in this regulation is intended to represent one-half the actual value, therefore the value is $3.50 (one half of $7.00).
33.475.220 River Bank Restoration

A. Purpose. The purpose of requiring that the river bank be restored within the North Reach is to enhance the natural resource and functional values of lands along the Willamette River. The requirement can be met by improving the function of a portion of the river bank on a site or paying a fee in-lieu of conducting on-site restoration.

B. River bank restoration. On sites that have river frontage, 80 percent of the river bank must meet the requirements of section 33.475.460, River Bank Restoration Standards.

33.475.230 IG2 Minimum Landscape Area

A. General. In lieu of meeting the required minimum landscaped area standard in the IG2 zone, applicants may choose to make a payment as described below. See 33.140.225 for the minimum landscaped area standard for the IG2 zone.

B. Payment in lieu of landscaping. The amount of the payment is based on the cost the applicant would have incurred if choosing to comply with the minimum landscaped area standard, and half the cost of the land that, instead of being landscaped, is now available for development. The contribution amount will be rounded up to the next multiple of $10. The formula for the payment is:

\[ L \times \left( \frac{A}{50} \right) + \left( A \times \$3.50 \right) = \text{Amount of contribution} \]

Where \( L \) is the cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet; and \( A \) is the square footage of required landscaped area.

The cost to purchase and plant the landscape material is determined by the Director of the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. This cost will be adjusted each July 1 by the BES Director to reflect current market prices.

33.475.240 Property Line Adjustments

Property Line Adjustments may not result in a property that is in more than one river overlay zone, unless the second overlay is the River Environmental overlay zone.
33.475.310 River Setback

OAR 660-015-0005 and Goal 15 require that a setback line be established to keep structures separated from the river. However, the requirement does not apply to “water-related or water-dependent uses”. The existing greenway regulations require that development be setback 25 feet from the top of bank. The setback does not apply to development such as buildings, structures, storage areas, and equipment that is river-dependent and river-related development. The setback does apply to building, equipment and structures that are not river-dependent or river-related.

The river setback will continue to apply in the River General and the River Recreational overlay zones in the North Reach. Staff proposes to increase the setback to 50 feet from the top of the bank of the Willamette River (the existing greenway setback is 25 feet from the top of bank). A 50 foot setback is more in keeping with current thinking about urban form in relation to the river. The setback in South Waterfront is 100 feet. The setback also provides a buffer between development and the river system. The Bureau of Environmental Services recommends that development be setback at least 50 feet from the top of bank so that the natural functions of the riparian area and the river can thrive. The setback also provides space for the greenway trail.

The setback is based on the location of the top of bank. The definition and measurement of top of bank has been problematic. Staff proposes to amended the definition and add a new section regarding how to measure the top of bank.
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, 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 and dock are river-dependent, but the parking lot, bathrooms, 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 river bank restoration carried out to meet section 33.475.460 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 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
33.475.310.E Encroachment into the setback. One of the main goals of the River Plan/North Reach is to revise regulations where reasonable so that property owners in the working harbor have the flexibility to expand and redevelop on site. As a corollary to the staff proposal to increase the setback from top of bank from 25 feet to 50 feet, staff also recommends allowing non-river-dependent and non-river-related development to encroach into the setback as long as the setback is enlarged an amount equal to the square footage of the encroachment. This change will allow flexibility for addressing on-site design issues while ensuring that the average setback remains 50 feet from top of bank. The regulations will also stipulate that at no point can development encroach closer than 25 feet from top of bank. This will ensure that there is a uniform space within the setback area for accommodating a trail or viewpoint if necessary.
D. Development standards.

1. Development landward of the river setback. Development, exterior alterations, excavations, and fills landward of the river setback are not required to be river-dependent or river-related.

2. Development within or riverward of the river setback. Development, exterior alterations, excavations, and fills within or riverward of the river setback must be river-dependent or river-related. Development, exterior alterations, excavations, or fills that are not river-dependent or river-related are allowed within or riverward of the river setback only if approved through a Greenway Goal Exception. Adjustments and modifications are prohibited.

E. Encroachment into the setback. Development that is not river-dependent or river-related may encroach into the river setback as long as the setback is increased by an amount of square footage equal to the encroachment. At no point can development that is not river-dependent or river-related encroach closer than 25 feet from top of bank unless approved through a Greenway Goal Exception. See Figure 475-4.

**Figure 475-4**
River Setback Encroachment

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[Diagram of river setback encroachment showing top of bank, property line, averaged river setback line, encroachment area, and increase area.]
33.475.320 River Bank Restoration
River bank restoration is required on every site that has river frontage in the North Reach. In the river general and river recreational overlay zones the requirement that 80 percent of the bank be restored reflects the fact that most development will be setback from the top of bank. The restoration standards can be found in section 33.475.460.

33.475.330 IG2 Minimum Landscaped Area
Staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program in lieu of meeting the minimum landscape area standard in the IG2 zone. The minimum landscape standard requires that 15% of a site be landscaped. Adjustments to this standard have been approved recently facilitating expansions of businesses that are located on constrained sites in the IG2 zone in the North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment.

33.475.330.B Payment in lieu of landscaping
The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 standard, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. Land in the harbor districts is currently estimated to have a value of $7.00 per square foot. The formula for land value in this regulation is intended to represent one-half the actual value, therefore the value is $3.50 (one half of $7.00).
33.475.320 River Bank Restoration and Fee In-lieu.

A. Purpose. The purpose of requiring that the river bank be restored within the North Reach is to enhance the natural resource and functional values of lands along the Willamette River. The requirement can be met by improving the function of a portion of the river bank on a site or paying a fee in-lieu of conducting on-site restoration.

B. River bank restoration. On sites that have river frontage, 80 percent of the river bank must meet the requirements of section 33.475.460, River Bank Restoration Standards.

33.475.330 IG2 Minimum Landscape Area

A. General. In lieu of meeting the required minimum landscaped area standard in the IG2 zone, applicants may choose to make a payment as described below. See 33.140.225 for the minimum landscaped area standard for the IG2 zone.

B. Payment in lieu of landscaping. The amount of the payment is based on the cost the applicant would have incurred if choosing to comply with the minimum landscaped area standard, and half the cost of the land that, instead of being landscaped, is now available for development. The contribution amount will be rounded up to the next multiple of $10. The formula for the payment is:

\[ L \times (A/50) + (A \times $3.50) = \text{Amount of contribution} \]

Where L is the cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet; and A is the square footage of required landscaped area.

The cost to purchase and plant the landscape material is determined by the Director of the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. This cost will be adjusted each July 1 by the BES Director to reflect current market prices.

33.475.340 Property Line Adjustments

Property Line Adjustments may not result in a property that is in more than one river overlay zone, unless the second overlay is the River Environmental overlay zone.
33.475.405 Environmental Reports
The River Environmental overlay zone is a new overlay that has been created specifically to address the protection and conservation of remaining high and medium ranked natural resource areas in the North Reach. The natural resource inventory for the Willamette River has been updated and documents the location, extent and relative condition of resources that provide important riparian corridors and wildlife habitat functions in the North Reach. The River Environmental overlay zone does not apply to low-ranked natural resources, for example unvegetated river banks.

The primary focus of the River Environmental overlay zone is to limit the impacts from development on the natural resources and functional values contained within the zone. When impacts can not be avoided mitigation will be required. Development in the zone will not be precluded if proposed development meets the standards or if there are no practicable alternatives that will avoid adversely affecting the resource—in that sense the zone will function more like the environmental conservation zone than the environmental protection zone. The North Reach is the working harbor and as such, development on the river banks and in the water will occur, however additional development in the River Environmental zone will have to be designed to reduce impacts on the resources and functional values in the area.

33.475.420 When River Review is Required
As with the other environmental overlay zones in the City, some types of development and activity will be exempt from regulation, some development and exterior alteration will be allowed if it meets standards, and some development will require a land use review. This proposed code diverges from the other environmental overlay codes in that there are no standards that apply to development in general. Rather, the standards in the River Environmental overlay zone have been written to apply only to a narrow set of development types and activities. This means that more development in the River Environmental overlay zone will trigger discretionary review than triggers environmental review in the rest of the city.
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 resource values and functions 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 resources 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, the item 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 is not exempt from the River Environmental overlay zone regulations, and the development 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.
Commentary

33.475.430 Items Allowed Without River Review
In keeping with current City regulatory approaches to managing activities within identified natural resources areas, staff proposes a two-track system for reviewing proposals that affect the area within the River Environmental overlay zone. The first track is clear and objective, while the second track involves discretionary review. On the first track, proposals are either exempt from the River Environmental overlay zone regulations or the proposal is subject to standards. If the proposal is not exempt and it either does not meet a prescribed standard or there are no standards that apply to the proposal, then the proposal is subject to River Review.

The standards allow certain specific low-impact development and exterior alterations. The standards limit the amount of disturbance that can occur and limit how close the development or alteration can be to the river, a stream or a wetland. Tree removal is limited and mitigation is always required.

33.475.430.A. Exemptions
Some development and activities that occur within the River Environmental overlay zone will be exempt from regulation. The activities that are exempt from the regulations are important for the continued operation of existing facilities and they have little or no impact on resources or the activity is adequately regulated by a state or federal agency. Examples include operation, maintenance, repair and replacement of existing structures and improvements, alterations that do not change the footprint of a building, and placement of a certain number of piles and dolphins. The majority of the proposed exemptions mirror the levels of development and alteration that are currently exempt from the regulations of the Environmental Overlay zones or are exempt from Greenway Review.

33.475.430.A.3.e Under the current greenway regulations all dredging, channel maintenance and removal of gravel from the river is exempt from greenway review. Staff proposes to narrow the exemption so that new dredging outside of the main river channel requires River Review. Maintenance dredging that occurs outside the main river channel that has been approved by the U.S. Army Corps of Engineers will continue to be exempt. The reason for the change is that new dredging outside of the main river channel has the potential to impact aquatic resource areas such as shallow water and beaches. These resources play an important role in the life cycle of aquatic species, including salmon, and impacts to these areas should be avoided when practicable and mitigated if the impacts can't be avoided.
33.475.430  Items Allowed without River Review
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,
public interpretive facilities, and utilities.  Replacement is not exempt
whenever coverage or utility size is increased;

   b. Alterations to buildings that do not change the building footprint and do
not require adjustments to site-related development standards;

   c. New accessory structures that are located on existing paved surfaces or
on a dock, wharf or bulkhead, if the dimensions of the new accessory
structure do not exceed 24 feet by 24 feet;

   d. Operation, maintenance, repair and replacement of irrigation systems,
stormwater facilities, non-potable water systems, and erosion control
measures;

   e. Dredging, channel maintenance, and the removal of gravel from within
the navigation channel, and maintenance dredging outside of the
navigation channel that is approved by the U.S. Army Corps of Engineers.
Dredged materials can not be placed in the River Environmental overlay
zone;
This is a new chapter. For ease of readability the text is not underlined.

f. Removing plants listed on the Nuisance or Prohibited Plant Lists except for trees; and

g. 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. Monitoring wells located above the Ordinary High Water Mark must be flush mounted;

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 over 4 inches 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 with 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.
Commentary

33.475.430.A.4.h  Staff proposes to allow the addition of fencing on an already paved surface because of the need for harbor-related facilities to add fencing based on security concerns. The exemption only applies to paved surfaces because in most cases a paved surface within an industrial waterfront facility is not functioning as a wildlife corridor. If the fence will be placed in an unpaved area, then consideration of wildlife connectivity should be afforded.

33.475.430.B  Standards

As previously mentioned, some development and alteration will be allowed within the River Environmental overlay zone without requiring a discretionary review. The types and levels of development and alteration allowed are generally low-impact activities that can be readily mitigated. The standards limit the amount of disturbance that can occur and limit how close the development or alteration can be to the river, a stream or a wetland. Tree removal is limited and mitigation is always required.

Development standards have been drafted for the replacement of bulkheads when the replacement will occur within a few feet of the existing bulkhead, cargo conveyor structures that are supported by footings, the installation of rail road tracks, the installation of utility lines and stormwater outfalls, resource enhancement projects, the construction of trails, site investigative work not done by hand held equipment, and the removal of trees. These categories represent the extent of the activities that will be allowed within the River Environmental overlay zone with out further review. Mitigation and tree replacement will be required for these activities.

33.475.430.B.1  Standards for Bulkheads

The replacement of existing structures and exterior improvements is exempt from the River Environmental overlay zone regulations unless the size or coverage of the structure is increased. In some cases, replacing a bulkhead requires installing a new bulkhead a few feet in front of the existing structure. When this occurs replacement is not exempt because coverage is increased. Mitigating for the impacts of moving a bulkhead farther into the river is important, however requiring River Review and an alternatives analysis is not efficient as there is likely no alternative to replacement. Therefore, staff proposes to allow replacement through standards when the new bulkhead is not longer than the existing, is not located farther than five feet riverward of the existing, and the applicant compensates for the impacts by purchasing mitigation credits from the River Restoration Program’s Bank.

The standard requires that the applicant purchase in-channel credits. The requirement reflects that in-channel habitat is the type of habitat impacted when a bulkhead is installed and the river is filled behind it. The number of credits required to be purchased will match the square footage of area being filled in. For example, if the bulkhead is 500 feet long and it is being placed 5 feet in front of the existing bulkhead, the square footage of in-channel habitat impacted is 2500 square feet. The applicant would be required to purchase the equivalent of 2500 square feet of in-channel habitat credits.

The crediting system for the River Restoration Program has not be established yet. Until it is established, the Bureau of Development Services will work under an administrative rule to calculate the compensatory payment. When the bank is established the money collected will be transferred to the program. The base cost for a one square foot credit of in-channel habitat is estimated to be $22.50. This cost estimate does not include the design, permitting and long-term management fees that will be established as part of the program.
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, 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 purchase credits from the River Restorations Program’s bank. The type of credits purchased must be in-channel habitat credits and the number of credits purchased must equal the square footage of area that is filled in between the old and the new bulkheads.
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 tree removal standards are described in paragraph B.9, 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).

33.475.430.B.3 Standards for rail rights-of-way
The width of corridor allowed for the development of a rail right-of-way is based on discussions with BDS staff who have reviewed the installation and extension of rail road track in the North Reach. The width is intended to accommodate standard gauge rail (4 feet 8 inches) with added space for ballast and any equipment that may be necessary for track operations.
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 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.

   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, except that up to 4 single piles or 2 multiple-pile dolphins for each 100 feet of shoreline may be installed;
   
   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 returned to pre-construction condition;
   
   e. Tree removal as allowed by paragraph B.9, below; and
   
   e. Mitigation is required as specified in paragraph B.10, below.

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 15 feet wide. No disturbance is allowed outside of the 15 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.9, below; and
   
   d. Mitigation is required as specified in paragraph B.10, below.
33.475.430.B.4-5 Standards for utility lines and stormwater outfalls
The standards in these paragraphs mirror standards for the installation of a utility line or stormwater outfall in the Environmental Overlay zones.
4. Standards for utility lines. The following standards apply to new utility lines, including stormwater conveyance facilities, 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 up to 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.9, below; and

d. Mitigation is required as specified in paragraph B.10, 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;

d. 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;

c. Only one outfall pipe may be used on a site;

d. 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;

e. Tree removal as allowed by paragraph B.9, below; and

f. Mitigation is required as specified in paragraph B.10, below.
**33.475.430.B.7 Standards for resource enhancement**

These standards are intended to ensure that the river bank is shallower than before the enhancement project because a shallow bank provides better resource function than a steep bank. The standards also require that the bank be stabilized with vegetation rather than rock armoring.

For projects that occur landward of the top of bank, the standards allow disturbance of the ground as long as there is no net increase in soil within the River Environmental overlay zone and the area disturbed is replanted with native vegetation. Resource enhancement projects, by definition, must result in a net increase in functional value and an improvement in the quantity or quality of resources. Mature native vegetation in many cases provides high quality natural resource function. The removal of native vegetation is limited so that staff can evaluate whether or not the removal of vegetation will result in a net increase in functional value and an improvement in quality or quantity of resource.
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 setback 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.9, below; and
   c. Mitigation is required as specified in paragraph B.10, below.

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 geotextile fabrics;
      (4) The area between the top of bank and the ordinary high water mark must be planted as follows:
         • At least eighty percent of the area must be planted with shrubs;
         • At least one tree must be planted for every 400 square feet of 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;
         • The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met; and
      (5) Tree removal as allowed by subsection B.9, below.
b. The following standards apply to resource enhancement projects located landward of the top of bank of the Willamette River:

1. There must be no excavation or fill of, or construction activity within any stream, wetland or water body;

2. There is no net fill, or increase in the amount of soil in the River Environmental overlay zone;

3. Native vegetation listed on the *Portland Plant List* may not be removed except as allowed by subsubparagraph B.7.b(4) and paragraph B.9, below; and

4. No structures are proposed except for public viewing areas developed as part of the project. The public viewing areas must meet the following:

   - Up to 500 square feet of ground can be disturbed;
   - The viewing area must be set back at least 30 feet from the top of bank of a stream, wetland or water body;
   - The viewing area must not be in the floodway;

5. Areas where ground disturbance has occurred must be replanted as follows:

   - 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.
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. The standards require that all disturbed areas are mitigated using the mitigation standards in paragraph 10.

33.475.430.B.9 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. Staff proposes to amend 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 proposed standard allows all nuisance and prohibited trees to be removed and requires replacement when trees over 4 inches in diameter are removed. The proposed 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 proposed 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.
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. The disturbance is temporary;
   
   b. The disturbance is temporary;
   
   c. Mitigation is required as specified in paragraph B.10, below.

9. Standards for tree removal. The following standards apply to the removal of trees 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 conjunctions with development and exterior improvements approved under the standards of this section as follows:

         • within the area where the support footing for a cargo conveyor will be located.
         
         • within the area where 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; and
         
         • within the area where the trail will be constructed.
33.475.430.B.9.c This standard refers to canopy factor and the Tree and Landscaping Manual. The Tree and Landscaping Manual is administered by the Bureau of Development Services and it describes how to landscape areas that are required by the Zoning Code to have trees and other landscaping. The manual prescribes a methodology for determining canopy factors for specific tree species. Canopy factor reflects canopy area, tree height, and growing rate. The manual does not currently contain a complete canopy factor table. Staff proposes to create the table and have it included in the manual prior to the effective date of this regulation.

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.

The requirement that the replacement trees have a canopy factor equal to or greater than the tree removed is a policy direction proposed by the Citywide Tree Project, and is intended to reduce the overall loss of tree canopy in the City.

33.475.430.B.10 Mitigation
In order to develop in or alter the River Environmental overlay zone, mitigation is required. In most cases, 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.

If the mitigation area will not be on the site where the disturbance occurs, then the mitigation area must be three times the size of the disturbed area. The larger size for off-site mitigation is intended to encourage on-site mitigation. In all cases, mitigation will occur in the North Reach.

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

- 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;
- the replacement trees must be a minimum ½-inch in diameter;
- the replacement trees must be native trees selected from the Portland Plant List;
- the replacement trees must have a canopy factor equal to or greater than the canopy factor of the tree species removed, as prescribed in the Tree and Landscaping Manual;
- 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;
- all replacement trees must be planted 10 feet on center; and
- The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.

10. Mitigation. The following standards apply to mitigation required by paragraphs B.2 through .8. All of the standards must be met. Modification of these standards requires approval through a River Review.

a. Size of mitigation area.

(1) Generally. 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 build, vegetation will be removed, or ground disturbance will occur as a result of the proposal. Tree removal and resource enhancement projects do not trigger this mitigation requirement;
33.475.430.B.10.i The standards that are referred to in this subparagraph govern plant materials, installation, irrigation and monitoring and reporting for mitigation and restoration plantings.
(2) Exceptions. The following exceptions apply:

- If the project impact area includes an existing mitigation area required by the City as a result of a previously approved activity or development, then the mitigation ratio for alterations to the mitigation area must occur at a ratio of 3:1;

- If the mitigation area will not be on the site where the project occurs, then mitigation must occur at a 3:1 ratio of mitigation area to project impact area.

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 at the same time as, or in advance of, 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 C.8.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;
33.475.450 Corrections To Violations of River Environmental Overlay Zone Standards

The proposed 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 river bank restoration carried out to meet the standards of 33.475.460, but plantings installed as mitigation will be in addition to what the restoration standard requires, and will not be subject to the cost limitations described in 33.475.460.D.

### 33.475.450 Corrections to Violations of River Environmental Overlay Zone Standards

**A. Purpose.** The purpose of the correction regulations is to ensure the timely restoration and remediation 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;
      
      (4) The correction will remove all illegal development; and
      
      (5) The correction will replant illegal clearing.
b. If any of the following occurred, the applicant may not use Option One, but may chose either Option Two or Option Three:

(1) More than 12 diameter inches of trees were removed;

(2) More than one Madrone 4 inches or less, Garry Oak 4 inches or less, or Pacific Yew 2 inches or less was removed;

(3) A Madrone larger than 4 inches, Garry Oak larger than 4 inches, or Pacific Yew larger than 2 inches was removed;

(4) 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.

c. If the applicant cannot meet Options One or Two, Option Three must be used.

d. If the violation also violates a condition of approval of a land use review, no trees have been removed, and disturbance did not occur 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, the applicant may choose Option One or the process described in Section 33.730.140. The applicant may not choose Options Two or Three.

e. If the violation also violates a condition of approval of a land use review, trees have been removed, and 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, the applicant must use the process described in Section 33.730.140. The applicant may not choose one of the options in this section.

2. Option One, Remove and Repair. This option results in removal of illegal development and replanting and repair of any damage. All of the requirements of this subsection must be met. Adjustments and modifications to these requirements are prohibited.

a. All items and materials placed in the area of violation are removed using hand-held equipment and no new disturbance area is created;

b. Any soil compaction resulting from the violation is tilled or otherwise broken up to a depth of 6 inches prior to planting; and

c. Violation remediation planting. The area to be planted is the area disturbed by the violation. All of the following must be met:

(1) The area disturbed by the violation activity must be replanted;

(2) One tree, one shrub, and five groundcover plants are required to be planted for every 50 square feet of planting area. Plants must be native and selected from the Portland Plant List;

(3) A second area, equal in size to the area disturbed by the violation activity, must also be replanted as remediation, or seven additional plants as described in B.2.c.2 must be planted on the site for every 50 square feet disturbed;
(4) Any Nuisance or Prohibited Plants listed on the *Portland Plant List* must be removed from the planting area and within 10 feet of the planting area;

(5) Trees must be a minimum one inch in diameter unless they are oak, madrone, or conifer, which may be three- to five-gallon size. No more than 10 percent of the trees may be oak or madrone. Shrubs must be a minimum of two-gallon size. All other species must be a minimum of four-inch pots; and

(6) The requirements of Section 33.248.090, Mitigation and Restoration Planting, must be met.

d. For violations involving the removal of trees, three native trees must be planted on the site for each tree removed, in addition to other remediation vegetation planted. If any tree removed was a Garry Oak, Madrone, or Pacific Yew, the replacement trees must be of the same species. Planted trees must be a minimum one inch in diameter unless they are oak, Madrone, or conifer, which may be three- to five-gallon size.

3. Option Two, Retain and Mitigate. This option results in legalizing the illegal development and mitigating for any damage. All of the requirements of this subsection must be met. Adjustments and modifications to these standards are prohibited.

a. The applicable standards of paragraphs 33.475.430.B must be met; and

b. Violation remediation planting. The area to be planted is the area disturbed by the violation. Where development is approved for the area disturbed by the violation, an area of the same size elsewhere on the site must be planted. All of the following must be met:

(1) The area disturbed by the violation activity must be replanted;

(2) One tree, one shrub, and five groundcover plants are required to be planted for every 50 square feet of planting area. Plants must be native and selected from the *Portland Plant List*.

(3) A second area, equal in size to the area disturbed by the violation activity, must also be replanted as remediation, or seven additional plants as described in B.3.b.2 must be planted on the site for every 50 square feet disturbed;

(4) Any Nuisance or Prohibited Plants listed on the *Portland Plant List* must be removed from the planting area and within 10 feet of the planting area;

(5) Trees must be a minimum one inch in diameter unless they are oak, madrone, or conifer, which may be three- to five-gallon size. No more than 10 percent of the trees may be oak or madrone. Shrubs must be a minimum of two-gallon size. All other species must be a minimum of four-inch pots; and
(6) The requirements of Section 33.248.090, Mitigation and Restoration Planting, must be met.

c. For violations involving the removal of trees, three native trees must be planted on the site for each tree removed, in addition to other remediation vegetation planted. If any tree removed was a Garry Oak, Madrone, or Pacific Yew, the replacement trees must be of the same species. Planted trees must be a minimum 1 inch in diameter unless they are oak, Madrone, or conifer, which may be three- to five-gallon size.

4. Option Three, River Review. This option requires River Review, using the approval criteria and procedures below:

a. Approval criteria. The applicable approval criteria of Subsection 33.865.120 must be met.

b. Review procedures. Reviews are processed as follows:

   (1) Type III. A Type III review is required for any development, exterior alteration, or exterior improvement within a wetland, stream channel, drainageway, or water body.

   (2) Type II. All other reviews to correct violations are processed through a Type II procedure.

   (3) All River Reviews must provide the information required in Section 33.865.040, Supplemental Application Requirements
33.475.460.A The regulations for removal and remediation of hazardous substances (33.475.480) require that the river bank be restored using biotechnical measures rather than rock armoring. Biotechnical measures generally use vegetation as the primary soil stabilization technique. Bioengineering techniques will achieve the same purpose as the slope and planting standards of this section. Therefore, if the river bank has been restored in compliance with the removal and remediation of hazardous substances regulation, the bank will be deemed in compliance with the River Bank Restoration Standard.
River Bank Restoration

33.475.460 River Bank Restoration Standards

A. When these standards apply. These standards apply when there is development or an exterior alteration to a site with river frontage. The standards for river bank restoration and planting are found in subsection C, below. Where the river bank is not yet in conformance with the standards in subsection C, restoration must occur to bring the river bank on the site, or a portion of it, closer to conformance. The area where the restoration must occur is described in subsection B. There is a cap on the total amount of restoration that must be carried out, and a cap on the amount of restoration that must be carried out with any one project, as described in subsections B and D. Adjustments or modification to this requirement, or the manner in which project value and the contribution amount are determined, are prohibited.

If some or all of the required restoration area has previously been deemed in compliance with subsubparagraph 33.475.480.D.2.a(1) as part of a cleanup action conducted under ORS 465.200 through 465.545 and 465.900, then that portion of the restoration area will also be deemed in conformance with the standards of this section and will be exempt from further restoration or payment of in-lieu fees required in subsections C and D.

B. Restoration area. The restoration area is the area between the ordinary high water mark and the location where the top of bank would be if the bank had a slope of 1:5. See Figure 475-5, River Restoration Area.

In the river industrial overlay zone, 50 percent of the restoration area is required to meet the river bank restoration standards in subsection C. In the river general and river recreational overlay zones, 80 percent of the restoration area is required to meet the river restoration standards of subsection C. Additional restoration beyond the 50 percent and 80 percent may be approved as mitigation under River Review.

C. River bank restoration standards. The required restoration area must meet one or more of the following standards:

1. On-site river bank restoration. The following standards apply to on-site river bank restoration. If any portion of the required restoration area cannot be brought into conformance within the cost limits described in subsection D, then the applicant may choose which elements of the following standard to meet first:

   a. The average slope of the required restoration areas must not be 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 the site boundary.

   b. All prohibited and nuisance plants must be removed from the restoration area.
This is a new chapter. For ease of readability the text is not underlined.
33.475.460.C.2 Payment in-lieu
The second option for meeting the river bank restoration standard involves paying into the
River Restoration Program. The purpose of the River Restoration Program is to increase the
quality and quantity of natural resources and function values in the North Reach. The program
will acquire sites in the North Reach for the purpose of natural resource restoration and carry
out restoration activities. The proposed restoration sites are shown on Map 6: Watershed
Health: Proposed Overlay Zones and Potential Restoration Sites. The restoration sites were
identified based on input from River Plan stakeholders and refined by City staff with the help
of staff from state and federal agencies. Restoration conducted as part of the program
augments the conservation of natural resources that will occur as a result of the application of
the River Environmental overlay zone and its attendant regulations.

The River Restoration Program will receive funds from this and other in-lieu fee options and
other sources not identified in this code. When an in-lieu payment is allowed, BDS will collect it
at the time a building permit is issued.

The Bureau of Development Services will develop an in-lieu payment schedule to be applied when
an applicant chooses to meet this option. The payment will be based on the cost to bring one
linear foot of river bank into compliance with the restoration standards described in subsection
C.1 (plus a management fee). The total cost to meet this option will reflect the percentage of
river bank that is affected by the standards (50 percent in the river industrial overlay zone
and 80 percent in the river general and river recreational overlay zones). The cost for
restoring one linear foot of river bank will be established as part of establishing the River
Restoration Program's bank. Based on work done to date, staff estimates that river bank
restoration will cost $1500 per linear foot. This cost estimate includes re-grading, removing
unnecessary debris and structures, removing nuisance and prohibited plants, amending the soil,
and installing native plantings. The cost does not include designing, permitting and managing the
restored area for long-term survival. The cost for long-term management will be added to the
total cost per linear foot.

The total in-lieu payment will be scaled when conditions within the required restoration area
conform to one or more of the on-site restoration standards. For example, if the grade of the
river bank within the entire required restoration area meets the slope standard, then 50
percent will be deducted from the total in-lieu payment. If the entire required restoration
area meets the plant and plant density standards, then 15 percent will be deducted from the
total in-lieu payment. If the area meets the slope standard and there are no structures to
remove, 75 percent of the total payment will be deducted, and if the area meets the planting
standards and there are no nuisance or prohibited plants in the area, 25 percent will be
deducted.
c. All structures and debris must be removed from the restoration area except for large wood and bioengineered structures on the bank used to reduce localized erosion and improve bank stabilization. Examples of bioengineered structures include bundles of plant materials, or soil cells wrapped in geotextile fabrics.

d. Required plants. The following plant standards apply. Existing vegetation can be counted toward meeting the standards. See Figure 475-7, Example Planting Plan:

1. Plants and plant densities:

   - One tree, three shrubs, and four other plants are required to be planted for every 100 square feet of restoration area. Trees may be clustered. Plants must be selected from the Portland Plant List; or

   - One tree and three shrubs are required for every 100 square feet of restoration 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.

3. Soil within the required restoration area must be amended as follows:

   - The restoration areas must have 12 inches of growing medium;

   - The medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume);

   - Placement of the growing medium is not allowed when the ground is frozen or saturated; and

   - Temporary erosion control measures are required until permanent stabilization measures are functional.

2. Payment in-lieu. In lieu of conducting on-site river bank restoration the applicant may choose to make a payment that will go to the River Restoration Program. The Bureau of Development Services shall adopt and maintain an in-lieu payment schedule and track where in-lieu payments have been collected.
This is a new chapter. For ease of readability the text is not underlined.

**Figure 475-6**

**Example Restored River Bank**

(this example is informational only and does not include erosion control or stabilization features that may be required based on engineering)

![Example Restored River Bank Diagram](image)

**Figure 475-7**

**Example Planting Plan**

![Example Planting Plan Diagram](image)
33.475.460.D.2.b.(6)
The Bureau of Environmental Services will evaluate the efficacy of voluntary restoration and will tell the Bureau of Development Services if the restoration qualifies for this exemption. Prior to adoption of the River Plan/North Reach, staff will develop the criteria for evaluating voluntary restoration. Staff will work with the Bureau of Environmental Services and the Bureau of Development Services to synthesize the criteria.
D. **Cost of required restoration.**

1. The cost required to meet the standards of this section is limited to one percent of the project value as described in paragraph 2, below, or $200,000, whichever is less. This cost limitation applies to restoration conducted on-site and to the cost of any payment in-lieu of on-site restoration. The cost of meeting the standards of this section may count toward the cost of upgrades required by Chapter 33.258, but the restoration required by this section must be completed first.

2. The project value is based on the entire project, not individual building permits. For purposes of this standard, project value includes:
   
a. 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;

b. Project value does not include costs associated with:
   
   (1) Normal maintenance and repair;

   (2) Nonconforming development upgrades required by this title;

   (3) Stormwater management system installation or upgrades;

   (4) Pollution control equipment;

   (5) Approved on-site mitigation for development within the River Environmental overlay zone;

   (6) Voluntary restoration that has been approved by the Bureau of Environmental Services;

   (7) 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;

   (8) Alterations required by approved fire/life safety agreements;

   (9) 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;

   (10) Alterations required by Chapter 24.85, Interim Seismic Design Requirements for Existing Buildings; and

   (11) Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements.
33.475.480 Removal or Remediation of Hazardous Substances
The regulations in this section are different from those found elsewhere in the Zoning Code. These regulations apply to the removal or remediation of hazardous substances when the removal or remediation is conducted under the authority of the Oregon Department of Environmental Quality. Under these circumstances, state law exempts the removal or remediation activity from local permitting procedures. While the activity is exempt from local procedures, the applicant is required to ensure that the local requirements are met. In practice this means that the applicant does not have to go through the City’s traditional permitting or land use processes, but the project must meet the City’s regulations.

The Bureau of Development Services implements what it calls an “exempt process” for evaluating whether the applicant’s hazardous substance removal or remediation proposal meets the City’s substantive regulations. In the past, it has been hard for applicants and DEQ to identify the substantive requirements of the Greenway Overlay Zones because every proposal is subject to Greenway Review and the bulk of the City’s substantive requirements related to the greenway overlay zones aren’t spelled out until the land use review has been conducted. In other words, some of the substantive requirements aren’t determined until after a process has occurred. There are a few substantive requirements clearly spelled out in the greenway code. These include the landscape requirement and the trail requirements). Stakeholders have questioned the prudence of implementing these particular standards during a removal or remediation process. Many believe that installing the landscaping and developing a trail is not advisable at the clean up stage because the trail and the landscaping may have to be removed later if the developed site includes river-dependent development.

The proposed regulations in this new section are intended to be the City’s substantive requirements for clean ups that are exempt from review. The substantive requirements are intended to inform the design of the final remedy not mandate the final remedy. The regulations have been written in a way that will provide the applicant and DEQ with the flexibility required to design the most appropriate removal or remediation action. Because these regulations will not be implemented through a traditional land use review process and they are supposed to allow flexibility on a site-by-site basis, they are not written like clear and objective standards.

33.475.480.C.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 would prefer that the final remedy 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.

33.475.480.C.2 Flush mounted monitoring wells are more consistent with the scenic goal of the Goal 15, Willamette Greenway and with the goals of the River Plan.
Clean Up of Contaminated Sites

**33.475.480 Removal or Remediation of Hazardous Substances**
The following regulations apply to actions taken to remove or remediate hazardous substances that are conducted under ORS 465.200 through 465.545 and 465.900 and are exempt under ORS 465.315.

A. **Review procedure.** The regulations of this section are not implemented in the same way that other regulations in this Title are implemented. ORS 465.315 waives the requirement that entities performing removal or remediation actions obtain permits or other authorizations from a local government. ORS 465.315 also waives local procedural requirements for obtaining a permit or other authorization. ORS 465.315 does not waive or exempt the removal or remediation activity from complying with a local governments substantive requirements. Rather than being administered through a land use process, the following regulations are implemented as part of the removal or remediation process administered by the Department of Environmental Quality. These regulations can also be used as voluntary guidance for the removal or remediation of hazardous substances administered by the United States Environmental Protection Agency.

The Bureau of Development Services works with the entity performing the removal or remedial action to ensure that the regulations of this section are met to the extent practicable. The BDS determination is delivered to the applicant and DEQ in the form of a letter Because the regulations are not subject to traditional City land use processes, the regulations are not entirely clear and objective standards, nor are they discretionary approval criteria applied in the context of Oregon land use statutes. The regulations are more specific and descriptive than approval criteria. Implementing them will require professional judgment.

B. **Relationship to other development and exterior alterations on the same site.**
For purposes of this section, the regulations apply only to the portion of the site located within the boundaries of the removal or remediation action, as delineated by the Department of Environmental Quality. 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 standards, approval criteria and procedural requirements of this chapter.

C. **General regulations for the removal and remediation of 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 should not, to the extent practicable, preclude the use of the site consistent with the uses allowed by the base zone or approved conditional use. If the site is within the River Industrial overlay zone, the final remedy should, to the extent practicable, 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 and river-related uses. Generally, this means that the remedy should not preclude 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 on an otherwise suitable riverfront site; and

2. Monitoring wells located above the Ordinary High Water Mark should be flush mounted to the extent feasible and practicable.
33.475.480.C.3 Goal 15 requires that building be separated from the river. The City’s river setback (called greenway setback outside of the North Reach) requires that development setback 50 feet from the top of bank. The regulation in this subsection is intended to ensure that the setback regulation can be implemented at the time of development or redevelopment.

33.475.480.D.1 The requirements of this subsection are aimed at encouraging the applicant and DEQ to design a remedy that leaves identified natural resource areas intact as much as possible. Again, 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 can not 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.
3. Buildings, structures and equipment installed for the purpose of removing or remediating hazardous substances should not be located within or riverward of the river setback to the extent practicable. The river setback is described in Sections 33.475.210 and .310. Location of buildings, structures or equipment should take into account the fact that the setback serves the purpose of keeping structures away from the river, and reserves space for development of the greenway trail in cases where the greenway trail is designated for the site. All efforts should be made to keep the area within and riverward of the river setback free of buildings, structures and equipment. If buildings, structures or equipment are proposed for the area within or riverward of the setback, then the applicant must demonstrate why these items must be located within the area or how they will not impede river-dependent or river-related uses when the site is developed or redeveloped.

D. Regulations that apply to specific areas. The following regulations apply to 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 and removal of native vegetation should be avoided to the extent practicable. If avoiding disturbance or native vegetation removal is not practicable, disturbance and removal should be minimized as much as possible. The applicant is required to demonstrate the extent to which avoidance is or is not practicable and the extent of minimization.

   b. If ground disturbance or removal of native vegetation can not be avoided, then the area where the ground has been disturbed or where native vegetation has been removed must be replanted to the extent practicable. 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) Required plants and planting densities:

         • 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

33.475.480.D.1.c This regulation refers to canopy factor and the Tree and Landscaping Manual. The Tree and Landscaping Manual is administered by the Bureau of Development Services and it describes how to landscape areas that are required by the Zoning Code to have trees and other landscaping. The manual prescribes a methodology for determining canopy factors for specific tree species. Canopy factor reflects canopy area, tree height, and growing rate. The manual does not currently contain a complete canopy factor table. Staff proposes to create the table and have it included in the manual prior to the effective date of this regulation.

The requirement that the replacement trees have a canopy factor equal to or greater than the tree removed is a policy direction proposed by the Citywide Tree Project staff and is intended to reduce the overall loss of tree canopy in the City.
(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; and

c. Trees that over 4 inches in diameter that are removed must be replaced at a ratio of one diameter inch of replacement tree for 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. The replacement trees must be a minimum ½-inch diameter. The replacement trees must be native trees selected from the Portland Plant List. The replacement trees must have a canopy factor equal to or greater than the canopy factor of the tree species removed, as prescribed in the Tree and Landscaping Manual. 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 restriction sufficient to ensure the success of the tree planting. Replacement trees can be counted toward meeting the tree requirement of subsubparagraph D.1.b(2) above.

d. All vehicle areas installed for purposes of conducting the removal and remediation actions must be removed from the River Environmental overlay zone by the time the project is complete and the area must be restored to original condition.
33.475.480.D.2.a  If the river bank will be altered significantly as a result of the removal or remediation of hazardous substances, the City prefers that the bank is restored using soil bioengineering instead of engineered inert materials. 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 feasible. If rock armoring is used on the bank, the City encourages 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.
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 apply. These regulations describe preferred river bank stabilization techniques. A significant alteration is an alteration that affects a substantial portion of the bank, includes more than 50 cubic yards of excavations 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 preferred bank design uses biotechnical techniques including soil bioengineering. Figures 475-8 and 475-9 show examples of biotechnical techniques. Where the river bank is stabilized using these techniques, that portion of the river bank is exempt from future application of (and in-lieu fees associated with) the restoration standards in 33.475.460.

   • Rock armoring or other hard surface armoring methods should not be used, to the extent practicable, 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;

   • On the surface, the bank should be sloped or terraced in a way that allows the establishment and maintenance of vegetation as the primary soil stabilization method;

   • Incorporation of large wood, including root wads, tree boles and logs, is encouraged to reduce localized erosion and improve bank stabilization. This type of bank treatment also improves ecological values;

   • 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; and
(2) If the bank is not designed in a manner consistent with subsubparagraph D.2.a.(1), then the following apply:

- The applicant must demonstrate that all reasonable efforts were made to design the bank in a manner consistent with subsubparagraph D.2.a.(1); and

- If rock armoring is used on the surface between the top of bank and the Ordinary High Water Mark, then every effort should be made to limit the amount of rock used by re-grading the slope 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 D.1, above apply.

3. In the area that is riverward of the Ordinary High Water Mark, the substrate should be natural whenever practicable. If DEQ or EPA determines that a hard treatment is necessary, every effort should be made to incorporate as many of the following as practicable or demonstrate why incorporation is not practicable:

a. Shallow beaches in the near shore area;

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, chemical treated wood, 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.
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.
Figure 475-8
Soil Bioengineering

Figure 475-9
Marsh Bench
Commentary

The following maps show the area within which the River Overlay zones and regulations apply.
This is a new chapter. For ease of readability the text is not underlined.

Map 475-1
Willamette River
North Reach Overlay Boundary
Map 1 of 2

Bureau of Planning • City of Portland, Oregon
Map 475-1

Willamette River
North Reach Overlay Boundary

Map 2 of 2

Bureau of Planning  City of Portland, Oregon
CHAPTER 33.583
ST. JOHNS PLAN DISTRICT
(Added by: Ord. No. 178452, effective 7/10/04.)

Sections:
General
  33.583.010 Purpose
  33.583.020 Where These Regulations Apply
Use Regulations
  33.583.100 Purpose
  33.583.110 Prohibited Uses
  33.583.120 Retail Sales And Service Uses in the EG and EX Zones
Development Standards
  33.583.200 Purpose
  33.583.210 Drive-Through Facilities
  33.583.220 Exterior Activities in the EG and EX Zones
  33.583.230 Housing Types Prohibited in the EG and EX Zones
  33.583.240 Minimum Density in the R1 Zone
  33.583.250 Maximum Building Height
  33.583.260 Bonus Option in the CN2 Zone
  33.583.270 Building Coverage and Landscaping in the EX Zone
  33.583.280 Residential Uses in the EG1 Zone
  33.583.285 Additional Regulations in the Riverfront Subdistrict
  33.583.290 Additional Regulations in the Baltimore Woods Subdistrict
  33.583.300 Additional Regulations in the Industrial Noise Impact Area
Map 583-1 St. Johns Plan District
Map 583-2 Maximum Heights

33.583.010 Purpose
The St. Johns plan district provides for an urban level of mixed-use development including commercial, employment, office, housing, institutional, and recreation uses. Specific objectives of the plan district include strengthening St. Johns’ role as the commercial and civic center of the North Portland peninsula. These regulations:

- Stimulate business and economic vitality;
- Promote housing and mixed-use development;
- Reduce the impacts from industrial operations on nearby residential areas;
- Discourage auto-oriented uses and development;
- Enhance the pedestrian environment;
- Enhance the character of buildings in the plan district; and
- Support the Willamette greenway and opportunities to celebrate the Willamette River as a unique element of the urban environment.
Commentary

33.583.290 Additional Regulations in the Baltimore Woods Subdistrict
In 2004 City Council adopted the St. Johns / Lombard Plan. That plan focused on land use and transportation issues and identified strategies, actions and future planning efforts to create a more livable and economically viable town center and main street in St. Johns. The plan did not address issues in the area known as the Baltimore Woods to the north of the St. Johns Bridge. The area is primarily zoned General Employment 2 and is sandwiched between the heavy industrial operations on the Port of Portland’s Toyota Terminal and the residential neighborhood of Cathedral Park. In the recent past, fairly high density residential development has been approved through conditional use review. Neighbors and industrial property owners alike agree that buffers are needed between residential and industrial development. To reduce the potential for conflict between residential and industrial development, staff proposes to limit residential density in subarea A of the Baltimore Woods subdistrict and to prohibit residential uses within subarea B (see Map 583-1). Subarea A includes properties that have already been developed, in some cases with residential uses and subarea B includes vacant parcels.

33.583.300 Additional Regulations in the Industrial Noise Impact Area
Noise associated with operations at the Toyota Terminal has an impact on residential development in the St. Johns and Cathedral Park neighborhoods. Operations at the terminal occur 24 hours a day and involve loading trains during the night. Loud noises are an inherent part of these industrial operations and without proper sound protection, the noise can become a health hazard for people living near the source. As parts of St. Johns grow and transform into a vibrant waterfront neighborhood, the conflicts between industrial and residential development will increase. In order to reduce the potential for industrial operations to disturb residents, additional sound insulation will be required in all new and substantially reconstructed residential structures within roughly 500 feet of an industrial or employment zone or the railroad tracks. This proposal has been drafted in consultation with the City’s Noise Officer and is similar in nature to the sound insulation requirement that applies to residential structures near the Portland Airport. The additional requirements have the potential to increase the cost of construction, however the benefits of reducing potential health hazards offsets the increased costs.
33.583.290 Additional Regulations in the Baltimore Woods Subdistrict

A. **Purpose.** The regulation in this subdistrict is intended to prohibit the establishment of additional residential uses in the area known as the Baltimore Woods. The area within the subdistrict is zoned EG2. Eliminating additional residential uses in the EG2 zone will reduce the potential for conflicts between industrial operations and residential uses.

B. **Where these regulation applies.** The following regulation applies to sites within the Baltimore Woods Subdistrict shown on Map 583-1.

C. **Residential uses prohibited.** Household Living and Group Living are prohibited on sites that do not have an established residential use in the EG2 zone. In this case, established residential use is defined as follows:

1. There is a dwelling unit located in the EG2 zone; or

2. There is an approved land use review that allows dwelling units in the EG2 zone and the land use review has not expired.

33.583.300 Additional Regulations in the Industrial Noise Impact Area

A. **Where these regulations apply.** The following regulations apply within the Industrial Noise Impact Area shown on Map 583-3.

A. **Noise insulation required.** All new residential structures must be constructed with sound insulation or other means to achieve the following design standards. Reconstructed structures where the total cost of improvements is 75 percent or more of the total assessed improvement value of the site must also meet this standard. Garages and similar accessory structures that do not include living space are exempt from the standards:

1. 45 dBA hourly Leq interior sound level during daytime hours (7:00 am to 10 pm); and

2. 38 dBA hourly Leq interior sound level during nighttime hours (10:00 pm to 7:00 am).

B. **Certified by acoustical engineer.** An engineer registered in Oregon who is knowledgeable in acoustical engineering must certify that the building plans comply with the design standards for sound insulation prior to the issuance of a building permit.

C. **City provides list.** The City will provide a list of at least three registered engineers knowledgeable in acoustical engineering.
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 harm, and ensure the success of mitigation and enhancement activities;

- Provide flexibility for unusual situations. River Review provides for consideration of alternative designs for development that has the least impact on protected resources, and more exacting control over development in the River Environmental overlay zone. River Review also provides a mechanism for evaluating proposals that include off-site mitigation;

- Allow for more accurate maps and more certainty for property owners by allowing for the location of the River Environmental overlay zone boundary to be modified when permitted changes in the location or quality of resources or functional values occur or when the boundary location is determined more precisely on a specific site through a more detailed study;

- 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.
33.865.020 When River Review is Required
River Review is required in the following situations:

A. When an applicant proposes non river-dependent or non river-related uses 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 violations of subsection 33.475.430.B occur; or

D. When an applicant wishes to modify the boundary of the River Environmental overlay zone based on a detailed environmental study. The City Council, Planning Commission, or Director of BDS may initiate a River Review for amendments to the boundary of River Environmental overlay zone that reflect permitted changes in the location or quality of resources or functional values. Removal of River Environmental overlay zone boundaries are processed as a change of an overlay zone, as stated in Chapter 33.855, Zoning Map Amendments. The 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 II procedure.

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 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 whenever the proposed development will result in unavoidable significant detrimental impact on the identified resources and functional values. A remediation site plan is required whenever 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.

1. The existing conditions site plan must show the following:
   
   a. For the entire site:
      
      (1) 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

      (2) 100-year floodplain and floodway boundaries;
This is a new chapter. For ease of readability the text is not underlined.

[3] 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, Environmental-Related Definitions, Top of Bank;

(4) Boundaries of the River Environmental overlay zone. These boundaries may be scaled in relation to property lines from the Official City Zoning Maps;

(5) Topography shown by contour lines at two foot vertical contours in areas of slopes less than ten percent and at five foot vertical contours in areas of slopes ten percent or greater;

(6) Drainage patterns, using arrows to indicate the direction of major drainage flow; and

(7) Existing improvements such as structures, or buildings, utility lines, fences, etc.

b. Within the River Environmental overlay zone:

(1) Distribution outline of shrubs and ground covers, with a list of most abundant species; and

(2) Trees over 4 inches in diameter identified by species. In the case of a violation, also identify the trees that were cut or damaged by showing stump diameter and species.

2. A proposed development must show the following:

a. Location of all proposed development;

b. Location of proposed utility lines and connections, stormwater systems and septic or sewer facilities;

c. Proposed final contour lines at 2-foot vertical intervals in areas of slopes less than ten percent and at 5-foot vertical contours in areas of slopes ten percent or greater;

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 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;

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 development alternatives for a particular site. The alternatives must be evaluated on the basis of their impact on the resources and functional values of the site. In the case of a violation, the impact evaluation is used to determine the nature and scope of the significant detrimental impacts. To the extent that the site resources and functional values are part of a larger natural system such as a watershed, the evaluation must also consider the cumulative impacts on that system. The impact evaluation is based on the resources and functional values identified as significant in the Willamette River Natural Resource Inventory.

   a. An impact evaluation includes:

      (1) Identification, by characteristics and quantity, of the resources and their functional values found on the site;

      (2) Identification of significant detrimental impacts that are unavoidable;

      (3) Evaluation of alternative locations, design modifications, or alternative methods of development to determine which options reduce the significant detrimental impacts on the identified resources and functional values of the site; and

      (4) Determination of the alternative that best meets the applicable approval criteria.

   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. Additional site assessment. The applicant may choose to provide a site-specific environmental assessment, prepared by a qualified consultant, to more precisely determine the location, type, extent, and quality of the City designated natural resources on the site. This assessment may verify or challenge the site feature information in the City's inventory, for the purpose of informing the impact evaluation and identifying mitigation obligations. Site features include, for example, physical aspects of the site such as streams, wetlands, seeps and springs, topography, floodplains, vegetation, special habitat areas, or use of the site by plant/animal species of interest;

3. 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
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 feasible. 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.
4. Mitigation or remediation plan. The purpose of a mitigation or remediation plan is to compensate for unavoidable significant detrimental impacts that result from the chosen development alternative or violation as identified in the impact evaluation. A mitigation or remediation plan includes:

a. Resources and functional values to be restored, created, or enhanced on the mitigation or remediation site. If credits will be purchased from the River Restoration Program’s bank as compensation, 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 maintenance practices;

e. Monitoring and evaluation procedures;

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 infeasible or impracticable.

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, uses that are not river-dependent or river-related may locate on a site that fronts the river 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 loss of total resource area; and

   b. There will be a significant improvement of at least one functional value.
site, while in-water impacts be compensated for off-site through the purchase of River Restoration Program credits.

The requirement that mitigation occur on-site for significant impacts to resources landward of ordinary high water is aimed at protecting the connectivity of existing resources and functional values along the rivers edge. In the event that on-site mitigation is not possible or beneficial, the applicant will be allowed to purchase mitigation credits from the River Restoration Program's bank as compensation.

The requirement that mitigation occur off-site for impacts to aquatic resources is aimed at two things: 1) replacing aquatic habitat in-kind as much as possible; and 2) reducing the impact that creating additional aquatic habitats could have on the developable area of a site.

When River Restoration Program credits will be purchased, the criteria specify that the number type and total cost for credits will be based on the impacts from the development, the quality of the resources and functional values being impacted and the availability of in-kind credits. The base unit cost of one credit of habitat will represent the full replacement cost of one unit of high quality functioning habitat. As part of the River Review, the full cost of a credit may be adjusted to reflect the proposal and the existing condition of the resource being impacted. This following diagram represents a way of relating the cost of a credit to the impacts and conditions on site:

The ordinance adopting the River Plan will direct BDS to establish an administrative rule that will guide how the number and total cost of mitigation credits will be scaled. The administrative rule will also establish unit costs for habitat replacement until the River Restoration Program is up and running and the cost of credits has been established. The recommended interim base unit cost will be based on the unit costs for restoration developed by River Plan and BES staff to estimate the total cost of restoring the River Restoration Program sites. Any mitigation revenue collected before the River Restoration Program is up and running will be held in a fund and transferred to the Program once it is established. Ultimately, the base unit cost of a credit will be those approved for use in the River Restoration Program's bank.
2. All other proposals in the River Environmental overlay zone:
   
a. Proposed development minimizes the loss of identified resources and functional values, consistent with allowing those uses generally permitted or allowed in the base zone without a land use review. Identified resources and functional values are those identified and described in the *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)*.

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 outside of the River Environmental overlay zone;

c. For projects identified as part of a Conditional Use, criteria B.2.a and .b, above will be evaluated in light of the uses approved with the conditional use, and considering the primary objectives of the conditional use where applicable;

d. There will be no significant detrimental impact on areas of the site reserved for mitigation, areas of the site not proposed for development at this time, downstream river habitat, areas within the River Environmental overlay zone on adjacent sites, or other sites where environmental restoration is in progress or completed;

e. Mitigation:

   (1) The mitigation plan demonstrates that all significant detrimental impacts on identified resources and functional values will be compensated for. The mitigation plan must demonstrate that all significantly impacted resources and functional values are replaced in-kind unless something other than in-kind functional replacement is deemed appropriate and preferable;

   (2) Mitigation for unavoidable significant detrimental impacts to identified resources and functional values located landward of the ordinary high water mark must occur on-site unless infeasible or impracticable. Factors to be considered include the amount, size and shape of areas available for on-site mitigation, the potential for successful restoration of resources and functional values on the site, the location of the mitigation area in relation to the existing or proposed uses and development on the site, the potential impact of the existing or proposed uses and development on the mitigation area, contamination, and any other site specific issues or constraints. If on-site mitigation is deemed infeasible or impracticable, then the compensation for significant detrimental impacts must occur off-site through the purchase of mitigation credits from the River Restoration Program’s bank;

   (3) Mitigation for significant detrimental impacts to identified resources and functional values that are located riverward of the ordinary high water mark must occur off-site through the purchase of credits from the River Restoration Program’s bank.
33.865.100.B.2.f 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 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 no undermine or contradict the decisions and recommendations of DSL or the Army Corps. 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.
(4) For unavoidable impacts to the river bank, if the mitigation plan includes river bank enhancements that meet the standards of 33.475.460.C.1 that portion of the mitigation plan will be approved at a ratio of 1 linear foot of additional on-site bank restoration to 1 linear foot of impact, or where deemed infeasible or impractical, a corresponding payment of an in-lieu fee to the River Restoration Program. This additional bank restoration carried out as mitigation does not count toward meeting the river restoration standard described in 33.475.460.B.

(5) When the mitigation plan includes the purchase of credits from the River Restoration Program’s bank, the number, type, and total cost of credits required to be purchased as compensation will be based on the significant detrimental impacts, the condition of the identified resource or functional value being impacted, and the availability of in-kind credits. If in-kind credits are not available, the purchase of out-of-kind credits can satisfy this requirement.

(6) 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 City identified natural resources and functional values.

f. 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.
33.865.110 Modification of Site-Related Development Standards
This approval criterion allows adjustments to site-related development standards to be considered and approved as part of a River Review. The applicant must show that granting the adjustment will result in greater protection of the resources and functional values on the site and that the proposal is consistent with the purpose of the standard that is being adjusted. This approval criterion is the same as a criterion used in Environmental Overlay zones and the Pleasant Valley Natural Resource Overlay zone.

33.865.120 Corrections to Violations of the River Environmental Overlay Zone Standards
These approval criteria are the same criteria that are used for violations of the Environmental Overlay zones and for violations of the Pleasant Valley Natural Resource Overlay zone.
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 the identified resources and functional values on the site. The identified resources and functional values are those identified and described in the *Willamette River North Reach Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (2008)*.

33.865.110 Modifications of Site-Related Development Standards
The review body may consider adjustments 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 at 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.