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>
</tr>
</thead>
<tbody>
<tr>
<td>33.475</td>
<td>River Overlay Zones</td>
<td>North Reach</td>
</tr>
<tr>
<td>33.840</td>
<td>Greenway Goal Exception</td>
<td>North Reach and Greenway</td>
</tr>
<tr>
<td>33.860</td>
<td>Comprehensive Natural Resource Plan</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.865</td>
<td>River Review</td>
<td>North Reach</td>
</tr>
<tr>
<td>33.10</td>
<td>Legal Framework and Relationships</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.258</td>
<td>Nonconforming Situations</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.272</td>
<td>Public Recreational Trails</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.430</td>
<td>Environmental Overlay Zones</td>
<td>Environmental Zones</td>
</tr>
<tr>
<td>33.440</td>
<td>Greenway Overlay Zones</td>
<td>Greenway</td>
</tr>
<tr>
<td>33.510</td>
<td>Central City Plan District</td>
<td>South Waterfront</td>
</tr>
<tr>
<td>33.583</td>
<td>St. Johns Plan District</td>
<td>North Reach</td>
</tr>
<tr>
<td>33.585</td>
<td>Swan Island Plan District</td>
<td>North Reach</td>
</tr>
<tr>
<td>33.700</td>
<td>Administration and Procedures</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.810</td>
<td>Comprehensive Plan Map Amendments</td>
<td>North Reach</td>
</tr>
<tr>
<td>33.815</td>
<td>Conditional Uses</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.910</td>
<td>Definitions</td>
<td>Citywide</td>
</tr>
<tr>
<td>33.930</td>
<td>Measurements</td>
<td>Citywide</td>
</tr>
</tbody>
</table>

Amendments to Other City Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Area of Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.50.060</td>
<td>Provisions for Flood Hazard Reduction</td>
<td>North Reach</td>
</tr>
</tbody>
</table>
Chapter 33.475, River Overlay Zones replaces Chapter 33.440, Greenway Overlay zones within the area along the Willamette River that is called the North Reach. Eventually, the River Overlay zones will replace the Greenway Overlay zones within the Central and South Reaches as well. The change for the Central and South Reaches 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.

33.475 is a new chapter of the zoning code. 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. BPS will develop a work plan for the monitoring program. 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 available 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 Permit Application Requirement

River Industrial Overlay Zone
33.475.100 Use Regulation
33.475.110 Nonconforming Uses
33.475.120 Vegetation Area
33.475.130 IG2 Minimum Landscape Area
33.475.140 Land Divisions and Property Line Adjustments

River General Overlay Zone
33.475.200 Use Regulations
33.475.210 River Setback
33.475.220 Vegetation Area
33.475.230 IG2 Minimum Landscape Area
33.475.240 Property Line Adjustments

River Recreational Overlay Zone
33.475.300 Use Regulation
33.475.310 River Setback
33.475.320 Vegetation Area
33.475.330 IG2 Minimum Landscape Area
33.475.340 Property Line Adjustments

River Environmental Overlay Zone
33.475.400 Use Regulations
33.475.405 Environmental Report
33.475.420 Review Procedure
33.475.430 Exemptions and Development Standards
33.475.450 Corrections to Violations of River Environmental Overlay Zone Development Standards

Vegetation
33.475.460 Vegetated Area Standards

Clean Up of Contaminated Sites
33.475.480 Removal or Remediation of Hazardous Substances

33.475.010 Purpose
The River Overlay zones generally promote the protection, conservation, restoration, enhancement and maintenance of the economic, natural, scenic, and recreational qualities of lands along the north reach of the Willamette River. This purpose is achieved by applying regulations that control development of land, change of use and intensification of use, and reflect the desired character of the north reach of the Willamette River—a character that includes a prosperous working harbor, a healthy river and watershed, vibrant riverfront neighborhoods, and access to and along the river. The River Overlay zones also implement the City’s responsibilities under ORS 390.310 to 390.368 and Metro’s Urban Growth Management Functional Plan for the north reach of the Willamette River. This chapter includes the substantive requirements that apply to the removal and remediation of hazardous substances 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 separate boundaries of the North Reach River Overlay zones and the Greenway Overlay zones (see maps 475-1 and 440-1). An asterisk (*) has been added to the zoning map symbols for the River General overlay zone and the River Recreational overlay zone that exist in the North Reach to further identify which chapter applies to those zones.

The River Environmental overlay zone is a new overlay zone and has been applied to high and medium ranked resources identified in the Willamette River Natural Resources Inventory: Riparian Corridors and Wildlife Habitat (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 that shows the area within which the River Overlay zones and regulations apply. A corollary map has been added to 33.440, Greenway Overlay Zones, delineating the area within which the Greenway Overlay zoning code applies. This section describes which 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>
</tr>
</thead>
<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>
<td>e</td>
</tr>
</tbody>
</table>

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

A. The regulations of sections 33.475.010 through .060 and .460 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.
33.475.040  Relationship to other City, State and Federal Reviews

The City is in the process of developing an enhanced coordination process to improve the city/state/federal permitting process.
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 of uses or activities pursuant to this chapter does not imply compliance with other chapters of Title 33, other City regulations, or the regulations of state and federal agencies. Approval by other agencies does not imply approval by the City of Portland.

33.475.060 Supplemental Permit Application Requirement

A. When this requirement applies. The information specified in subsection B is required when a permit for development or exterior alteration in any of the river overlay zones is reviewed for compliance with this chapter. The supplemental information specified in subsection C is required when a permit for development or exterior alteration in the River Environmental overlay is reviewed for compliance with this chapter.

B. Top of Bank. If the site has river frontage, the applicant must provide a site plan depicting the top of bank of the Willamette River, and the structures and topographic contours referenced to determine the top of bank. The site plan depicting the top of bank must be drawn accurately to scale, and be suitable for reproduction on paper no smaller than 8.5 x 11 inches and no larger than 36 x 48 inches. The scale of the drawing must be between 1 inch = 50 feet, and 1 inch = 10 feet. Ground elevations must be shown by contour lines at 2-foot vertical intervals. See Section 33.910.030 for more information on top of bank. Top of bank information is not required for sites in the river industrial overlay zone that do not have any river environmental overlay zoning.

C. Additional information needed within the River Environmental overlay. The following additional information is required for building or development permit applications that are reviewed for compliance with the standards of the River Environmental overlay. The information in paragraphs 1 and 2 must be submitted with permit application plans. Submission of the information in paragraph 3 is optional.
1. An existing conditions site plan including:
   a. Location of River Environmental overlay zone lines on the site;
   b. Outline of any existing development, including existing utility locations, paved areas, river bank stabilization treatments, and buildings;
   c. Location of any wetlands or water bodies on the site or within 50 feet of the site. Indicate the location of the top of bank, centerline of stream, ordinary high water, or wetland boundary as appropriate;
   d. Trees must be identified as follows:
      (1) The size and species of trees that are 4 inches or greater in diameter that are within the area where ground disturbance or vegetation removal will occur, or have crown cover that overlaps that area, must be indicated on the site plan; and
      (2) Trees outside of the area where ground disturbance and vegetation removal will occur may be shown as general crown cover with an indication of species composition.
   e. Topography shown by contour lines at 2 foot vertical contours in areas of slopes less than 10 percent and at 5 foot vertical contours in areas of slopes 10 percent or greater.

2. A proposed development plan including:
   a. Outline of the proposed project area, including all areas of ground disturbance, vegetation removal, grading, new structures, new paving, new river bank stabilization treatments, any proposed utility work, and proposed mitigation areas;
   b. Location and description of all proposed erosion control devices;
   c. Stormwater management facilities; and
   d. A landscaping plan indicating the size, species, and location of all vegetation to be planted.

3. A list of the number and kinds of credits being purchased from the River Restoration Program’s certified mitigation bank.

4. Photographs of the site are not required but are encouraged to supplement the existing conditions site plan.
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 because they do not address uses that are nonconforming because they are not river-dependent or river-related.
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. See Figure 475-1. Area of Possible Expansion

Figure 475-1
Area of Possible Expansion

- Lot 1
- Lot 2
- Lot 3
- Lot 4
- Lot 5

Boundary of ownership on date regulation went into effect
Area occupied by the nonconforming use
Area where use may expand
Commentary

33.475.120 Vegetated Area Standard
In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, staff recommends that an applicant for a building or development permit be responsible for increasing the amount of vegetative cover in the North Reach.

The first option for meeting the requirement will be to vegetate 15 percent of the total site area within the River Overlay zones (i, g, r). The details of the on-site vegetation planting requirements can be found in section 33.475.460, Vegetated Area Standard. An applicant may submit documentation demonstrating full or partial compliance with the 15% vegetation requirement and receive appropriate credit against that requirement. The second option for meeting the vegetated area standard involves paying into the River Restoration Program. River Plan staff will work with the Bureau of Development Services to develop an in-lieu fee payment schedule to be applied when an applicant chooses to meet this second option.

The payment will be based on the cost to meet the vegetated area standard, one-half the cost of land acquisition, plus a design, permitting, long-term maintenance and management fee. Based on work done to date, staff estimates that the in-lieu fee for meeting the vegetation area standard will be $6.70 per square foot. When an in-lieu payment is chosen, BDS will collect it at the time a building permit is issued. The $6.70 per square foot in-lieu fee value was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be $1.15. With a 90% management fee the estimate is increased to $2.19. The unit cost for floodplain restoration is $3.00. With a 90% management fee the estimate is $3.95. The cost for acquisition is estimated to be between $3.00 and $8.00 per square foot. The average cost for acquisition is $5.50. Staff recommends recovering only a portion of the cost of acquisition from the in-lieu fee and therefore recommends that acquisition, in this context, be valued at $2.75. The total fee-in-lieu cost is therefore the sum of $3.95 and 2.75 or $6.70/square foot.

The purpose of the River Restoration Program is to increase the quality and quantity of natural resources and functional values in the North Reach. The program will acquire sites in the North Reach and carry out natural resource 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. The River Restoration Program will receive funds from this and other in-lieu fee options and other sources not identified in the zoning code.

The applicant will not be required to come fully into compliance with the standard all at once. With each permit there will be a cap on the total amount required to be spent, or paid in-lieu, for coming toward compliance. Staff recommends that the cap start at one percent of project value or $200,000, which ever is less, with the intention to increase the cap to two percent, or $200,000, once the economy recovers from the current recession.
33.475.120 Vegetated Area Standard

A. **Purpose.** Vegetation is required to enhance the natural qualities of lands along the Willamette River Greenway in the North Reach. Vegetation will increase the quantity and quality of natural resources and functional values, increase wildlife habitat connectivity, and improve watershed health conditions in the North Reach.

B. **Minimum vegetated area standard.** A minimum of 15 percent of the area on the site within the River Overlay zone must be vegetated to the standards of section 33.475.460, Vegetated Area Standards. Where the site does not yet meet these standards, actions must be taken to bring the site closer to conformance. Required landscaping, such as for required setbacks or parking lots, may apply toward the minimum vegetated area standard as long as the landscaping meets the standards of 33.475.460. Adjustments or modifications to this standard are prohibited.

C. **Payment in lieu.** In lieu of meeting the minimum vegetation area standard, 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.

D. **Cost of compliance.** There is a cap on the total amount of money that must be spent with any one project on coming closer into compliance with the standards as described in paragraph 33.475.460.D.2.
33.475.130 IG2 and EG2 Minimum Landscape Area
In lieu of meeting the minimum landscape area standard in the IG2 and EG2 zones, staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program. 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 North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment. In the IG2 and EG2 zones, meeting the Vegetated Area Standard would also satisfy this landscaping standard (the two standards may be met with the same area, provided the more robust planning standard is met).

The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 and EG2 standards, times a 90% design, permitting, long-term maintenance and management fee, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. This fee would be established through a Bureau of Development Services (BDS) administrative rule, and updated annually.

The cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet can be provided by the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. Land in the harbor districts is currently estimated to have a value of between $3.00 and $8.00 per square foot. The average of these is $5.50, and half of that value is $2.75. The cost of design, permitting, long-term maintenance and management is estimated to be 90%.
33.475.130  IG2 and EG2 Minimum Landscape Area

In lieu of meeting the required minimum landscaped area standard in the IG2 and EG2 zones, applicants may choose to make a payment. See 33.140.225 for the minimum landscaped area standard. The Bureau of Development Services shall adopt and maintain an in-lieu payment schedule and track where in-lieu payments have been collected.
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 special purpose tracts are not typically available for industrial development. 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.
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 midpoint of 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 Regulations
There are no special use restrictions in the River General overlay zone.

33.475.210 River Setback

A. Purpose. The purpose of the river setback is to keep structures separated from the river in areas where the land is not being reserved for river-dependent and river-related industrial uses. Separating structures from the river facilitates protection, maintenance, restoration, preservation and enhancement of the natural, scenic, historic and recreational qualities of the Willamette River in the North Reach by reserving space for the conservation and enhancement of natural vegetation and the opportunity for public access. In addition, OAR 660-015-0005 requires the establishment of a setback line.

B. General. The requirements of this section focus on whether the development is river-dependent or river-related. The focus is not on the primary use of the land. For example, a marine freight terminal is a river-dependent primary use, but not all development associated with the terminal is river-dependent. The dock and loading cranes are river-dependent, but the parking lot, storage areas, and corporate offices are not.

C. The river setback. The location of the setback is measured from the top of bank. (See Chapter 33.910, Definitions and 33.930, Measurements). The river setback extends from the top of the bank to a point 50 feet landward of the top of the bank. See Figure 475-1. Where river bank restoration carried out to meet section 33.475.460.B.2.a results in the top of bank shifting landward, the applicant may choose to measure the setback from the original top of bank. When this occurs, a survey of the original top of bank line and new top of bank line must be submitted for verification that the top of bank has been measured according to the standard in 33.930.150, Measuring Top of Bank and then recorded with the County recorder. In all cases the setback line must be at least 5 feet landward of the new top of bank line.

Figure 475-1
River Setback
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.

*Figure 475-2*

**River Setback Encroachment**
33.475.220  Vegetated Area Standard
In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, staff recommends that an applicant for a building or development permit be responsible for increasing the amount of vegetative cover in the North Reach.

The first option for meeting the requirement will be to vegetate 15 percent of the total site area within the River Overlay zones (i, g, r). The details of the on-site vegetation planting requirements can be found in section 33.475.460, Vegetated Area Standard. An applicant may submit documentation demonstrating full or partial compliance with the 15% vegetation requirement and receive appropriate credit against that requirement. The second option for meeting the vegetated area standard involves paying into the River Restoration Program. River Plan staff will work with the Bureau of Development Services to develop an in-lieu fee payment schedule to be applied when an applicant chooses to meet this second option.

The payment will be based on the cost to meet the vegetated area standard, one-half the cost of land acquisition, plus a design, permitting, long-term maintenance and management fee. Based on work done to date, staff estimates that the in-lieu fee for meeting the vegetation area standard will be $6.70 per square foot. When an in-lieu payment is chosen, BDS will collect it at the time a building permit is issued. The $6.70 per square foot in-lieu fee value was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be $1.15. With a 90% management fee the estimate is increased to $2.19. The unit cost for floodplain restoration is $3.00. With a 90% management fee the estimate is $3.95. The average of $2.19 and $3.95 is $3.05. The cost for acquisition is estimated to be between $3.00 and $8.00 per square foot. The average cost for acquisition is $5.50. Staff recommends recovering only a portion of the cost of acquisition from the in-lieu fee and therefore recommends that acquisition, in this context, be valued at $2.75. The total fee-in-lieu cost is therefore the sum of $3.95 and 2.75 or $6.70/square foot.

The purpose of the River Restoration Program is to increase the quality and quantity of natural resources and functional values in the North Reach. The program will acquire sites in the North Reach and carry out natural resource 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. The River Restoration Program will receive funds from this and other in-lieu fee options and other sources not identified in the zoning code.

The applicant will not be required to come fully into compliance with the standard all at once. With each permit there will be a cap on the total amount required to be spent, or paid in-lieu, for coming toward compliance. Staff recommends that the cap start at one percent of project value or $200,000, which ever is less, with the intention to increase the cap to two percent, or $200,000, once the economy recovers from the current recession.
33.475.220 Vegetated Area Standard

A. Purpose. Vegetation is required to enhance the natural qualities of lands along the Willamette River Greenway in the North Reach. Vegetation will increase the quantity and quality of natural resources and functional values, increase wildlife habitat connectivity, and improve watershed health conditions in the North Reach.

B. Minimum vegetated area standard. A minimum of 15 percent of the area on the site within the River Overlay zone must be vegetated to the standards of section 33.475.460, Vegetated Area Standards. Where the site does not yet meet these standards, actions must be taken to bring the site closer to conformance. Required landscaping, such as for required setbacks or parking lots, may apply toward the minimum vegetated area standard as long as the landscaping meets the standards of 33.475.460. Adjustments or modifications to this standard are prohibited.

C. Payment in lieu. In lieu of meeting the minimum vegetation area standard, 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.

D. Cost of compliance. There is a cap on the total amount of money that must be spent with any one project on coming closer into compliance with the standards as described in paragraph 33.475.460.D.2.
Commentary

33.475.230 IG2 and EG2 Minimum Landscape Area
In lieu of meeting the minimum landscape area standard in the IG2 and EG2 zones, staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program. 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 North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment. In the IG2 and EG2 zones, meeting the Vegetated Area Standard would also satisfy this landscaping standard (the two standards may be met with the same area, provided the more robust planning standard is met).

The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 and EG2 standards, times a 90% design, permitting, long-term maintenance and management fee, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. This fee would be established through a Bureau of Development Services (BDS) administrative rule, and updated annually.

The cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet can be provided by the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. Land in the harbor districts is currently estimated to have a value of between $3.00 and $8.00 per square foot. The average of these is $5.50, and half of that value is $2.75. The cost of design, permitting, long-term maintenance and management is estimated to be 90%.
33.475.230  IG2 and EG2 Minimum Landscape Area

In lieu of meeting the required minimum landscaped area standard in the IG2 and EG2 zones, applicants may choose to make a payment. See 33.140.225 for the minimum landscaped area standard. The Bureau of Development Services shall adopt and maintain an in-lieu payment schedule and track where in-lieu payments have been collected.

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, restoration, preservation, and enhancement of the natural, scenic, historic, and recreational qualities of the Willamette River in the North Reach by reserving space for the conservation and enhancement of natural vegetation and the opportunity for public access. In addition, OAR 660-015-0005 requires the establishment of a setback line.

B. General. The requirements of this section focus on whether the development is river-dependent or river-related. The focus is not on the primary use of the land. For example, a riverfront park is a river-dependent recreational primary use, but not all development associated with the park is river-dependent. The boat launch 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.B.2.a results in the top of bank shifting landward, the applicant may choose to measure the setback from the original top of bank. When this occurs, a survey of the original top of bank line and new top of bank line must be submitted for verification that the top of bank has been measured according to the standard in 33.930.150, Measuring Top of Bank and then recorded with the County recorder. In all cases the setback line must be at least 5 feet landward of the new top of bank line.

Figure 475-3
River Setback

Landward of river setback 50’ River Setback Riverward of 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](image.png)
Commentary

33.475.320 Vegetated Area Standard
In order to enhance the natural features of lands within the Willamette River Greenway and increase the amount of natural resource functionality, staff recommends that an applicant for a building or development permit be responsible for increasing the amount of vegetative cover in the North Reach.

The first option for meeting the requirement will be to vegetate 15 percent of the total site area within the River Overlay zones (i, g, r). The details of the on-site vegetation planting requirements can be found in section 33.475.460, Vegetated Area Standard. An applicant may submit documentation demonstrating full or partial compliance with the 15% vegetation requirement and receive appropriate credit against that requirement. The second option for meeting the vegetated area standard involves paying into the River Restoration Program. River Plan staff will work with the Bureau of Development Services to develop an in-lieu fee payment schedule to be applied when an applicant chooses to meet this second option.

The payment will be based on the cost to meet the vegetated area standard, one-half the cost of land acquisition, plus a design, permitting, long-term maintenance and management fee. Based on work done to date, staff estimates that the in-lieu fee for meeting the vegetation area standard will be $6.70 per square foot. When an in-lieu payment is chosen, BDS will collect it at the time a building permit is issued. The $6.70 per square foot in-lieu fee value was derived as follows: The average of the unit costs for revegetation and floodplain restoration, plus a 90% management fee and a portion of the cost for land acquisition. The unit cost for revegetation is estimated to be $1.15. With a 90% management fee the estimate is increased to $2.19. The unit cost for floodplain restoration is $3.00. With a 90% management fee the estimate is $5.70. The average of $2.19 and $5.70 is $3.95. The cost for acquisition is estimated to be between $3.00 and $8.00 per square foot. The average cost for acquisition is $5.50. Staff recommends recovering only a portion of the cost of acquisition from the in-lieu fee and therefore recommends that acquisition, in this context, be valued at $2.75. The total fee-in-lieu cost is therefore the sum of $3.95 and 2.75 or $6.70/square foot.

The purpose of the River Restoration Program is to increase the quality and quantity of natural resources and functional values in the North Reach. The program will acquire sites in the North Reach and carry out natural resource 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. The River Restoration Program will receive funds from this and other in-lieu fee options and other sources not identified in the zoning code.

The applicant will not be required to come fully into compliance with the standard all at once. With each permit there will be a cap on the total amount required to be spent, or paid in-lieu, for coming toward compliance. Staff recommends that the cap start at one percent of project value or $200,000, which ever is less, with the intention to increase the cap to two percent, or $200,000, once the economy recovers from the current recession.
33.475.320 Vegetated Area Standard

A. **Purpose.** Vegetation is required to enhance the natural qualities of lands along the Willamette River Greenway in the North Reach. Vegetation will increase the quantity and quality of natural resources and functional values, increase wildlife habitat connectivity, and improve watershed health conditions in the North Reach.

B. **Minimum vegetated area standard.** A minimum of 15 percent of the area on the site within the River Overlay zone must be vegetated to the standards of section 33.475.460, Vegetated Area Standards. Where the site does not yet meet these standards, actions must be taken to bring the site closer to conformance. Required landscaping, such as for required setbacks or parking lots, may apply toward the minimum vegetated area standard as long as the landscaping meets the standards of 33.475.460. Adjustments or modifications to this standard are prohibited.

C. **Payment in lieu.** In lieu of meeting the minimum vegetation area standard, 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.

D. **Cost of compliance.** There is a cap on the total amount of money that must be spent with any one project on coming closer into compliance with the standards as described in paragraph 33.475.460.D.2.
33.475.330 IG2 and EG2 Minimum Landscape Area
In lieu of meeting the minimum landscape area standard in the IG2 and EG2 zones, staff proposes to allow applicants to make a payment that will be directed to the River Restoration Program. 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 North Reach. Staff proposes to allow the flexibility to pay a fee rather than meet the minimum standard or apply for an adjustment. In the IG2 and EG2 zones, meeting the Vegetated Area Standard would also satisfy this landscaping standard (the two standards may be met with the same area, provided the more robust planning standard is met).

The amount of the payment is intended to roughly correspond to the cost of installing and maintaining the landscaping required by the IG2 and EG2 standards, times a 90% design, permitting, long-term maintenance and management fee, plus one-half of the value of the land that would have been devoted to landscaping but which will now be available for development. This fee would be established through a Bureau of Development Services (BDS) administrative rule, and updated annually.

The cost to purchase and plant one tree, two shrubs and seven ground cover plants for every 50 square feet can be provided by the Bureau of Environmental Services (BES) based on current market price for materials, labor, and maintenance. Land in the harbor districts is currently estimated to have a value of between $3.00 and $8.00 per square foot. The average of these is $5.50, and half of that value is $2.75. The cost of design, permitting, long-term maintenance and management is estimated to be 90%.
33.475.330 IG2 and EG2 Minimum Landscape Area

In lieu of meeting the required minimum landscaped area standard in the IG2 and EG2 zones, applicants may choose to make a payment. See 33.140.225 for the minimum landscaped area standard. The Bureau of Development Services shall adopt and maintain an in-lieu payment schedule and track where in-lieu payments have been collected.

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.
Commentary

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

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, development is exempt only from the River Environmental overlay zone regulations but may be subject to the other regulations in this Chapter. Development that is exempt from meeting the River Environmental overlay zone regulations is listed in 33.475.430.A, below. If the development is not included on the list of exemptions, then the proposal is subject to either the River Environmental overlay zone standards or River Review.

B. Standards. Several specific types of development and alterations are allowed within the River Environmental overlay zone if the proposal meets certain standards. Standards are provided for bulkheads, cargo conveyors, rail rights-of-way, utility lines, stormwater outfalls, trails, resource enhancement, and site investigative work. The standards are intended to encourage sensitive development while providing clear limitations on disturbance, including tree removal, and minimizing impacts on resources and functional values. Adjustments to the standards are prohibited. Modification of the standards may be approved through River Review. When a proposal can meet the standards, the applicant may choose to go through the discretionary River Review process, or meet the objective standards of this section. When there are no applicable standards, the proposal must be approved through River Review. Compliance with the standards is determined as part of the building permit or development permit application process. The standards are listed in 33.475.430.B, below.

C. Review. River Review is required when the proposed development or exterior alteration is subject to the River Environmental overlay zone regulations, and the development or exterior alteration either does not meet the River Environmental development standard or there are no River Environmental development standard that apply to the proposal. The process and approval criteria for River Review can be found in Chapter 33.865, River Review.
Commentary

33.475.430  Exemptions and Development Standards
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 activities 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/materials from the river is exempt from greenway review. Staff proposes to narrow the exemption because dredging in or near shallow water and beaches could have significant detrimental impacts on the habitat that the shallow water provides. Beaches and shallow water play important roles 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. The exemption language allows dredging in the main federal navigation channel and dredging in waters more than 35 feet deep with out having to meet development standard or go through river review. Shallow water is identified as water between zero and 20 feet deep, however staff recommends using 35 feet as the trigger for review because the area between 20 and 35 feet deep represents an area of concern where the impacts of dredging could affect the habitat in the more shallow areas.

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 from the River Environmental overlay zone regulations.
33.475.430  Exemptions and Development Standards

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

A. Exemptions. The following items are exempt from the River Environmental development standards and do not require River Review:

1. Change of ownership;

2. Temporary emergency procedures necessary for the protection of life, health, safety, or property;

3. Existing development, operations, and improvements including the following:
   a. Operation, maintenance, repair, and replacement of existing structures, exterior improvements, roads, public trails and paths, public viewpoints, 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. Accessory structures that are located on existing paved surfaces or 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. Replacement is not exempt whenever coverage or utility size is increased;
   e. Dredging, channel maintenance, and the removal of materials as follows:
      (1) Dredging, channel maintenance, and the removal of materials within the federal navigation channel.
      (2) Dredging, channel maintenance, and the removal of materials outside of the federal navigation channel as follows:
         • Dredging and the removal of material in areas in waters that are 35 feet deep or deeper; or
         • Channel, slip and berth maintenance that has been approved by the U.S. Army Corps of Engineers.
      (3) The placement of dredged materials within the River Environmental Overlay zone is not exempt.
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 4 inches and greater in diameter are not removed, and any disturbed area is restored to pre-construction conditions;

e. Utility service using a single utility pole or where no more than 100 square feet of ground surface is disturbed landward of the top of bank of water bodies, no ground is disturbed riverward of top of bank, and where the disturbed area is restored to the pre-construction conditions;

f. Utilities installed above or below developed portions of the public right-of-way, and stormwater management facilities within the public right-of-way;

g. Temporary site investigative work including soil tests, land surveys, groundwater and water quality monitoring stations when all of the following are met:

(1) The work is conducted using hand-held equipment only;

(2) The disturbance is temporary;

(3) Disturbance areas are restored to pre-existing conditions; and

(4) No native trees are removed.
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 with 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 without further discretionary 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 does not meet the threshold for an exemption because the total amount of coverage increases. 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 making a mitigation payment to the River Restoration 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 make a mitigation payment to the River Restoration Program. The Bureau of Development Services shall adopt and maintain a mitigation payment schedule based on the square footage of the area that is filled between the old and new bulkhead, and track where in-lieu payments have been collected. See Figure 475-5, Replacement Bulkhead Mitigation Area.
33.475.430.B.2 Standards for Cargo Conveyors
These standards were developed in consultation with Port of Portland staff and reflect the general characteristics and impacts of conveyors that carry cargo to and from a ship. The standards state that disturbance must not occur riverward of the top of bank of the Willamette River, however up to 4 single piles or 2 multiple-pile dolphins for each 100 feet of shoreline may be installed through the exemptions.

The tree removal standards are described in paragraph B.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).
2. Standards for cargo conveyors. The following standards apply to cargo conveyors within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.

   a. No more than 250 square feet of disturbance is allowed per support footing;

   b. No more than 50 cubic yards total of excavation is allowed;

   c. Disturbance associated with the support footing or the installation of the footing may not occur riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of the top of bank of an identified stream, wetland or other water body;

   d. Temporary roads necessary for the installation of the footings may not be wider than 15 feet, must be removed by the completion of the footing installation, and the disturbed area must be replanted to meet the standard of paragraph B.10.f, below;

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

   f. Mitigation is required as specified in paragraph B.10, below.
Commentary

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.

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.
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.

4. Standards for utility lines. The following standards apply to new utility lines, private connections to existing or new utility lines, and upgrades of existing utility lines within the River Environmental overlay zone. All of the applicable standards must be met. Modification of any of these standards requires approval through River Review.
   a. Disturbance associated with the installation of a utility line, including utility trenching, may occur within a corridor that is no greater than 10 feet wide. Disturbance may not occur outside of the 10 foot corridor;
   b. Disturbance associated with the installation of a utility line may not occur riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of the top of bank of a stream, wetland, or other water body;
   c. Tree removal as allowed by paragraph B.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;
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.
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.

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 with one tree, three shrubs, and four other plants for every 100 square feet of area. Trees may be clustered. Plants must be selected from the Portland Plant List; and

   (5) Tree removal as allowed by subsection B.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 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 to at least the following standard:

   - 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*; 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*. 
Commentary

33.475.430.B.8 Site investigative work
This set of standards will allow site investigative work, including the installation of monitoring wells, when the work is done with mechanical equipment. An exemption allows this type of work when the work is done exclusively with hand-held equipment. 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. Disturbance associated with site investigative work may not occur riverward of the ordinary high water mark.
   b. Disturbance associated with site investigative work is temporary;
   c. No native trees are removed; and
   d. Mitigation is required as specified in paragraph B.10, below.

9. Standards for tree removal. The following standards apply to the removal of trees 4 inches or greater in diameter from within the River Environmental overlay zone. All of the standards must be met. Modification of these standards requires River Review:
   a. Trees that are not native trees on the Portland Plant List may be removed;
   b. Generally, native trees on the Portland Plant List may not be removed except as follows:
      (1) General. Native trees up to 10 inches in diameter may be removed or pruned in conjunction with development and exterior improvements approved under the standards of this section as follows:
         • within the area where disturbance is allowed for the support footing for a cargo conveyor will be located.
         • within the area where disturbance is allowed for a temporary road associated with the installation of a cargo conveyor will be located.
         • within 10 feet of the cargo conveyor when removal or pruning is necessary to ensure safe operations;
         • within the rail right-of-way and within 10 feet of the rail right-of-way
         • within the utility line corridor;
         • within the area where the stormwater outfall will be constructed; 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 being undertaken by the Bureau of Environmental Services 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 B.6 and B.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 built, vegetation will be removed, or ground disturbance will occur as a result of the proposal. Mitigation area is not counted as part of the project impact area;
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.
This is a new chapter. For ease of readability the text is not underlined.

(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.9.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 Development 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.
g. If more than 10 trees, shrubs or groundcover plants are used to meet the above standard, then no more than 50 percent of the trees, shrubs or groundcover plants may be of the same genus. If more than 40 trees, shrubs or groundcover plants are used, then no more than 25 percent of the plants may be of the same genus;

h. Trees must be a minimum ½-inch caliper or bareroot unless they are oak or madrone, which may be one gallon size. No more than ten percent of the trees may be oak or madrone. Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent;

i. The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met; and

j. Mitigation carried out to meet these standards may be installed in conjunction with planting carried out to meet the vegetation standards of 33.475.460, but plantings installed as mitigation will be in addition to what the vegetation standard requires, and will not be subject to the cost limitations described in 33.475.460.D.

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

**A. Purpose.** The purpose of the correction regulations is to ensure the timely restoration 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;
This is a new chapter. For ease of readability the text is not underlined.

(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 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, two times the number of diameter inches removed must be planted on the site, 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;
This is a new chapter. For ease of readability the text is not underlined.

(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, two times the number of diameter inches removed must be planted on the site, 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.
Vegetated Areas

33.475.460 Vegetated Area Standards
The following regulations apply when there is development or an exterior alterations to a site within the River Overlay zones. The planting standards for required for vegetated areas are found in Sections A through C, below. Where the site does not yet meet these standards, actions must be taken to bring the site closer to conformance. There is a cap on the total amount of money that must be spent with any one project on coming closer into compliance with the standards. The cap is described in Section D, below. Adjustments or modifications to the regulations in this section are prohibited.

A. Vegetation standards. The required vegetation area must meet the following standards:

1. All prohibited and nuisance plants listed on the Portland Plant List must be removed from the vegetation area.

2. All structures and debris must be removed from the vegetation area except for large wood and bioengineered structures on the river 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.

3. Required plants. The following plant standards apply. Existing vegetation can be counted toward meeting the standards. See Figure 475-6, Example Planting Plan:

   a. Plants and plant densities:

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

      (2) One tree and three shrubs are required for every 100 square feet of vegetation area, and the planting area must be seeded with a native grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered. Plants and seeds must be selected from the Portland Plant List.

   b. For nonvegetated areas that will be revegetated to meet the minimum vegetation area standard, the soil must be amended as follows:

      (1) The revegetation area must have 12 inches of growing medium;

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

      (3) Placement of the growing medium is not allowed when the ground is frozen or saturated; and

      (4) Temporary erosion control measures are required until permanent stabilization measures are functional.
33.475.460.A.5
The regulations for removal and remediation of hazardous substances (33.475.480) require that, when practicable, the river bank be restored using biotechnical measures rather than rock armoring. Biotechnical measures generally use vegetation as the primary soil stabilization technique. Because biotechnical measures will include high quality soil amendments, removal of invasive species, and the planting of vegetation, staff recommends counting these area as in conformance with the minimum vegetation area and planting standards. This will provide a small incentive for applicants to meet the clean-up standard without having to also meet an additional vegetation standard.
4. Installation and maintenance. The following installation and maintenance requirements apply:

a. Installation. Plant materials must be supported when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires or other measures must be removed as soon as the plant can support itself.

b. Maintenance. Maintenance of vegetation areas is the ongoing responsibility of the property owner. Required vegetation must be continuously maintained in a healthy manner. Plants that die must be replaced in kind.

c. Irrigation. The intent of this standard is to ensure that plants will survive the critical establishment period when they are most vulnerable due to lack of watering. All vegetation areas must provide a temporary irrigation system, as stated in option 1 or 2.

(1) Option 1. A temporary irrigation system designed and certified by a licensed landscape architect as part of the landscape plan, which provides sufficient water to ensure that the plants will become established.

(2) Option 2. Irrigation by hand. If the applicant chooses this option, an inspection will be required one year after final inspection to ensure that the vegetation has become established. An inspection fee, paid at the time of permit application, will be required.
d. **Protection.** All required landscaped areas, particularly trees and shrubs, must be protected from potential damage by adjacent uses and development, including parking and storage areas.

f. **Monitoring and Reporting.** Monitoring of landscape areas is the ongoing responsibility of the property owner. Written proof that all specifications of this section have been met must be provided one year after the planting is completed. The property owner must provide this documentation to BDS.

5. **Exception.** Where an area has been deemed in compliance with subsubparagraph 33.475.480.D.2.a(1), the same area can be counted toward meeting the minimum vegetation area standard and will be deemed in conformance with the standards of this subsection.

**B. Location of vegetation area.** The required minimum vegetation area must be located within the River Overlay zones on the site. The following incentives apply to encourage vegetation close to or on the river bank:

1. If the vegetation area is within or adjacent to the river environmental overlay zone then every one square foot of vegetated area will count as 1.5 square feet toward meeting the minimum vegetation area standard;

2. If the vegetation area is riverward of the top of bank, and the bank also meets the following standard, then every one square foot of vegetated area will count as three square feet toward meeting the minimum vegetation area standard:
   a. The average slope of the river bank 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 boundary of the vegetation area. The river bank is the area between the ordinary high water mark and the top of bank.

**C. Vegetation area size and shape standards.** Vegetation areas must be a minimum of 10,000 square feet in area and must be at least 50 feet wide measured at the narrowest dimension.

**D. Cost of required vegetation.**

1. The cost required to meet or come closer to conforming with the minimum vegetated area standard 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 vegetation planted on-site and to the cost of any payment in-lieu of on-site vegetation. The cost of meeting the minimum vegetation area standard may count toward the cost of upgrades required by Chapter 33.258, but the vegetation required to meet the minimum vegetation area standard must be planted first.
33.475.460 D. 2. b. (6) The Bureau of Environmental Services will evaluate the efficacy of voluntary restoration and will inform the Bureau of Development Services if the restoration qualifies for this exemption. Prior to the effective date 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.
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, or resource enhancement that occurs 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.
Commentary

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.

The City intends to submit the River Plan including zoning code, zoning maps, and other relevant regulations and policies to the Environmental Protection Agency and the Department of Environmental Quality to be evaluated as Applicable or Relevant and Appropriate Requirements (ARARs) and To Be Considered (TBC) material for the Portland Harbor Superfund cleanup.

33.475.480.C.1 The zoning for most of the North Reach 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 are the substantive requirements that 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 government’s 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 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. Substantive requirements 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 an 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.
Commentary

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.

Because biotechnical measures will include high quality soil amendments, removal of invasive species, and the planting of vegetation, staff recommends counting these area as in conformance with the minimum vegetation area and planting standards. This will provide a small incentive for applicants to meet the clean-up standard without having to also meet an additional vegetation standard.
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 when practicable. 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 can be counted toward meeting the minimum vegetation area standard and will be deemed in conformance with the vegetation standards of 33.475.460.A.

- 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 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 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.
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. These are illustrations for information purposes only and should not be interpreted to be regulatory. The contamination containment remedy required by DEQ may differ from what is represented in the illustrations.
This is a new chapter. For ease of readability the text is not underlined.

**Figure 475-8**
Soil Bioengineering

**Figure 475-9**
Marsh Bench
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.
This is a new chapter. For ease of readability the text is not underlined.
33.10.130.B.1 Clarification for rights-of-way
The amendment in this paragraph clarifies that land within public rights-of-way that are also within one of the City's environmental overlay zones is regulated by Title 33.

33.10.130.C Clarification for water bodies
The amendment in this subsection eliminates dredging from the list of activities on or in water bodies that Title 33 does not regulate. Staff recommends that dredging in the North Reach be regulated by Title 33 when the dredging will occur outside of the federal navigation channel in water that is less than 35 feet deep. The land use review will ensure that the dredging has the least detrimental impact to shallow water and other aquatic habitats as practicable, and that mitigation is conducted to offset any unavoidable impacts to aquatic habitat.
Changes to other Chapters of Title 33

CHAPTER 33.10
LEGAL FRAMEWORK AND RELATIONSHIPS

33.10.030  When the Zoning Code Applies

A. **All land and water.** The zoning code applies to all land and water within the City of Portland except as provided in Subsections B., C., and D. below. All land divisions, uses and development must comply with all of the requirements specified in the zoning code for that location.

B. **Clarification for rights-of-way.** Land within private rights-of-way, including rail rights-of-way and utility rights-of-way, is regulated by Title 33. Land within public rights-of-way is regulated by Title 17, Public Improvements, and not by Title 33, except in the following situations where both Titles apply:

1. Rights-of-way in the greenway, river environmental, environmental conservation, environmental protection, pleasant valley natural resource, and scenic resource overlay zones, including the creation of new rights-of-way and the expansion or vacation of existing rights-of-way;

2. The act of creating or dedicating public rights-of-way through a land division;

3. Development within design districts when specified in Chapter 33.420, Design Overlay Zone;

4. Structures that project from private property over rights-of-way, such as oriel windows; and


C. **Clarification for waterbodies.** The siting of fills or structures on or over waterbodies is subject to the zoning code provisions. The zoning code does not regulate shipping, dredging, boating, and other similar uses on or in water bodies.

D. **Private rights-of-way.** The creation of private rights-of-way is regulated by Title 33, Planning and Zoning. Street improvements in private rights-of-way are allowed by right in all zones.
Commentary

33.258.070.D.2.a(6) Nonconforming Development
What is nonconforming development?
Nonconforming development exists where a site met all the regulations at the time it was developed but does not meet the current regulations because of subsequent changes to the Zoning Code. For example, many parking lots were built before Portland required landscaping. Such development is "grandfathered in," meaning that it can remain so long as there are no changes to the site.

What are upgrades to nonconforming development?
Upgrading nonconforming development means bringing it closer to compliance with the current regulations.

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

In keeping with the kinds of exemptions described above, staff proposes to exempt actions to remove or remediate hazardous substances from the threshold that triggers nonconforming upgrades because the clean up of hazardous substances has substantial public benefit.
33.258.070 Nonconforming Development

A.-C. No change

D. Development that must be brought into conformance.

1. No change

2. Nonconforming development with an existing nonconforming use, allowed use, limited use, or conditional use. Nonconforming development associated with an existing nonconforming use, an allowed use, a limited use, or a conditional use, must meet the requirements stated below. When alterations are made that are over the threshold of Subparagraph D.2.a., below, the site must be brought into conformance with the development standards listed in Subparagraph D.2.b. The value of the alterations is based on the entire project, not individual building permits.

a. Thresholds triggering compliance. The standards of Subparagraph D.2.b., below, must be met when the value of the proposed alterations on the site, as determined by BDS, is more than $124,100. The following alterations and improvements do not count toward the threshold:

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

(2) Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;

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

(4) Improvements to on-site stormwater management facilities in conformance with Chapter 17.38, Drainage and Water Quality, and the Stormwater Management Manual; and

(5) Improvements made to sites in order to comply with Chapter 21.35, Wellfield Protection Program, requirements; and

(6) Removal or remediation of hazardous substances conducted under ORS 465.200 through 465.545 and 465.900.
33.272 Public Trails
Staff recommends deleting the word "Recreation" from the title of this chapter. Public trails provide more than just a recreational purpose and the chapter title should be consistent with the purpose. This chapter has also been reorganized to be more consistent with the formatting of other zoning code chapters.

33.272.020.A This subsection is being added to address the requirements of the Dolan vs. City of Tigard Supreme Court decision. The results of that case require local governments to find that an exaction is roughly proportional to the impacts of the proposed development before the exaction can be required. The standards of chapter 33.272, Public Trails constitute and exaction for the purpose of construction of the trail.

Staff recommends updating the language in this subsection to refer specifically to rough proportionality and to authorize the Bureau of Development Services to create an administrative procedure for determining rough proportionality. Staff proposes that the administrative rule be a clear and objective formula. The outline of the proposed formula is described on the following commentary pages. The formula is based on the City’s justification for requiring dedication and construction of the public trail on the SK Northwest site on the riverfront in SE Portland. The SK Northwest decision was appealed to the State Land Use Board of Appeals and Oregon Court of Appeals. In both cases, the City’s finding of rough proportionality and application of the trail requirements were upheld.

While the elements of the formula have been tested, the data used in the formula needs additional refinement. Staff proposes to continue to work with representative from the City Attorney’s office, the Bureau of Development Services, the Portland Office of Transportation, and Portland Parks and Recreation to develop and finalize the administrative rule with the goal of resolving all of the issues prior to implementation of this code.

33.272.020.B The regulations of this chapter will not apply when removal and remediation of hazardous substances is being conducted. The development of the greenway trail should occur when the site is being developed rather than when it is being cleaned up. In addition, the City does not want to add cost and complexity to the removal and remediation of hazardous substances.
CHAPTER 33.272
PUBLIC RECREATIONAL TRAILS
(Amended by: Ord. No. 166835, effective 5/23/95; Ord. No. 174263, effective 4/15/00; Ord. No. 177082, effective 1/20/03.)

Sections:
33.272.010 Purpose
33.272.020 Where These Regulations Apply
33.272.030 Dedication of Public Right-Of-Way or Easement
33.272.040 Construction of the Trail
33.272.050 Trail Standards
33.272.060 Use of Trail
33.272.070 Hours of Use
33.272.080 Trespass
33.272.090 Trail Maintenance and Liability
33.272.100 Standards for City Acceptance of Deeded Land

33.272.010 Purpose
The public recreational trail requirements are intended to:
- Increase recreational opportunities within the City of Portland and connect these recreational opportunities with a regional recreational trail system;
- Increase public access to and along the Willamette River and to other significant natural resource areas;
- Provide emergency vehicle access;
- Provide access to increase public safety;
- Assist in flood protection and control;
- Assist in shoreline anchoring;
- Support alternative modes of transportation;
- Provide connections to other transportation systems;
- Implement the City's Comprehensive Plan policies regarding public recreational trails;
- Help create a pleasant, aesthetically pleasing urban environment; and
- Provide consistent standards for trail development.

33.272.020 Where These Regulations Apply
A. General. The regulations of this chapter apply to all sites that have the public trail symbol designation shown on the Official Zoning Maps. The regulations of this chapter apply when application of the regulations is determined to be logically related and roughly proportional to the impacts of the proposed development. The Bureau of Development Services has the authority to develop and maintain administrative rules establishing a clear and objective formula for making a determination of rough proportionality. A determination that the regulations of this chapter do not apply does not preclude acquisition and construction of a public trail through other legal means.

B. Exception. The regulations of this chapter do not apply when the proposal is for the removal or remediation of hazardous substances and the actions are conducted under ORS.465.200 through .545 and 465.900.
Proposed Process For Assessing Rough Proportionality

Staff proposes to amended this chapter an apply the public trail requirements when meeting the standards is roughly proportional. Generally, the public trail standards require that the applicant grant an easement for the trail and, in most cases, build the trail.

Rough proportionality will be assessed using on a non-discretionary formula. The formula will not be a standard in the zoning code, but rather an administrative procedure applied by BDS to determine if the trail standards are applicable. The formula relates a development’s impact on the trail system to the size of the exaction. The formula includes several steps:

Step 1: Determine the percent of impact

This number expresses the percentage of total bicycle and pedestrian trips along the segment of trail that are being generated by the development.

Percent of Impact Calculation:

The number of trips to and from the site that will be made by bicycles and pedestrians (A) divided by total bike/ped trips in the system (B)

\[ A / B = \text{Impact (I)} \]

A equals: the total number of trips to the site (calculated from the ITE manual) multiplied by the percentage of those trips that are expected to be made by bike/ped¹

B equals: total number of bike/ped trips in the segment²

Step 2: Determine the percent of exaction

This number expresses the percentage of the total trail system that the trail segment on the development site represents.

Percent of exaction calculation:

Length of trail designation of the site (C) divided by the length of the trail segment³ (D)

\[ C / D = \text{Exaction (E)} \]

---continued on next commentary page
C. **Columbia South Shore Plan District.** Sites in the Columbia South Shore Slough Trail area and Cross-Levee Trail area must also comply with the regulations of Section 33.515.260. These areas are shown on Map 515-4.

D. **South Waterfront subdistrict of the Central City Plan District.** Sites in the South Waterfront subdistrict of the Central City Plan District must also comply with the regulations of Section 33.510.253. The regulations of that section specify when public trails must be constructed within the South Waterfront subdistrict.

### 33.272.030020 Dedication of a Public Right-Of-Way or Easement

All applicants for a land use review or for building permits on lands designated with a recreational public trail symbol on the zoning map are required to grant an easement for the recreational trail. The easement must be recorded with the County Recorder/Auditor’s Office done as part of recording a land use review and finalized prior to obtaining a final certificate of occupancy. The land may be donated to the City instead of granting an easement when the standards of Section 33.272.030100 are met. Trails shown adjacent to public rights-of-way may be constructed in the public right-of-way, subject to approval from the Office of Transportation.

### 33.272.040030 Construction of Trails

A. **Single-dwelling zones.** The construction of the recreational trail in single-dwelling residential zones is only required for Land Divisions subdivisions and Planned Developments PUDs that involve the creation of a street. Construction of the trail is not required as part of development on an existing single-dwelling lot. Existing single-dwelling lots are not required to construct the trail.

B. **Columbia South Shore Plan District.** Sites in the Columbia South Shore Slough Trail area and Cross-Levee Trail area must also comply with the regulations of Section 33.515.260. These areas are shown on Map 515-4. Other trails in the Columbia South Shore Plan District must comply only with the regulations of this chapter.

C. **South Waterfront subdistrict of the Central City plan district.** Sites in the South Waterfront subdistrict must comply with the regulations of Section 33.510.253. The regulations of that section specify when recreational trails must be constructed within the South Waterfront subdistrict.

BD. **All other zones.** Construction of the recreational public trail is required on lands designated with a recreational public trail symbol on the zoning maps in any of the following situations listed below.

1. When there is new development;

2. When exterior alterations to existing development are 35 percent or greater of the assessed improvement value of the total improvements on the site; or
Commentary

Example: Fictional site in inner SE near the Springwater Corridor

Impact:
(A) 100 bike/ped trips to the site
(B) 2500 trips in the segment
    = 4% (this proposal will contribute 4% of the trips in the segment)

Exaction:
(C) 380’ trail designation on the site
(D) 5280’ total trail segment
    = 7.2% (the trail on site is 7.2% of the total trail segment)

Step 3: Determine rough proportionality

If the impact number (I) is greater than the exaction number (E), then meeting all of the trail requirements is proportional.
If the exaction number (E) is within 66 percent (2/3) of the impact number (I), then meeting all of the trail requirements is roughly proportional.
If the exaction number (E) is within 33 percent (1/3) of the impact number (I), then granting an easement for the trail is roughly proportional, but construction of the trail is not roughly proportional.
If the exaction number (E) is less than 33 percent of the impact number (I), then meeting the trail requirements is not proportional.

Example: Fictional site in inner SE near the Springwater Corridor

(I) 4
(E) 7.2
    = .55 The exaction is within 55% of the impact. In this case, granting an easement is found to be roughly proportional.

Appealing the determination:
The applicant will be allowed to appeal the number used in the first part of Step 1—the total number of trips to the site. The Portland Office of Transportation currently implements a process for appealing the ITE manual estimations of total trips. The procedure is called an alternate rate study and that process can be used within the context of this determination. PDOT will make the determination based on technical information.

There will not be a process available to dispute other aspects of the rough proportionality determination. If City Council finds that the logic of this formula and the numbers used for it represent rough proportionality, then we should not reevaluate the logic or the numbers on a case by case basis. The numbers will be updated regularly so that they represent the most up-to-date data available.

--continued on next commentary page
3. When there is a Land Division or Planned Development, streets are constructed in a subdivision, industrial park, or PUD.

**CE. Prior to certificate of occupancy.** The trail must be constructed prior to the issuance of a certificate of occupancy, unless the site is eligible for the trust fund provisions of Subsection 33.515.260.B, or the special timing provisions of Paragraph 33.510.253.D.4.

**33.272.050 Trail Standards**

**F. Trail standards.** A public recreational trail must comply with the standards of Portland Parks and Recreation for recreational trails or, where the trail is located in a public right-of-way, it must comply with the standards of the Portland Office of Transportation.

**G. Environmental review.** If the trail is located within the Environmental zones, the trail must comply with the requirements of Chapter 33.430.

**33.272.060 Use of Trail**

Public use and conduct on the recreational trail are subject to the regulations in Chapter 12, Prohibited Conduct, of Title 20, Parks and Recreation; and Chapter 50, Columbia South Shore Slough Trail of Title 20 except as otherwise limited by the terms of an easement between the applicant and the City.

**33.272.070 Hours of Use**

The recreational trail and access paths must be open to the public between the hours of 5 a.m. and 10 p.m., except as otherwise limited by the terms of an easement between the applicant and the City.

**33.272.080 Trespass**

Nothing in this chapter is intended to authorize public use of private property. Public use of private property is a trespass unless appropriate easements and access have been acquired.

**33.272.090 Trail Maintenance and Liability**

**A. City maintenance.** The City will accept maintenance and liability, similar to its responsibilities for City-owned park property, for a recreational trail segment if the City Engineer or the Director of Portland Parks and Recreation finds all of the following:

1. The applicant requests that the City assume the responsibilities;
2. The trail lies within an easement or right-of-way granted to the City for trail purposes;
3. The trail has been constructed to City standards;
4. The trail is physically continuous for at least 1/4-mile along the designated route. This requirement will be waived if the trail has not been made part of a physically continuous segment of at least 1/4-mile within 2 years after completion of the segment under consideration; and
Percentage of trips expected by bike and ped will be shown on a map and the percentage will differ according to the location of the site. Staff proposes that the percentage of trips expected to be made by bike and ped be either 16% or 10% depending on the site location (generally, the Central City and inner SE and NE Portland will use 16% and the rest of the City will use 10%). These percentages are based on two sources:

1. The Portland Office of Transportation assesses a transportation SDC and as part of that assessment, PDOT estimates that 8% of all trips to a site will be made by bike or ped. This number is based on a target and is supported by data.
2. In addition, each year the Auditor’s Office collects information regarding commuting by bicycling or walking and publishes the information in the Service Efforts and Accomplishments Report. The most recent report shows a citywide average of 6% of people reporting that they use a bicycle as their primary commute vehicle and 16% of people report that a bike is an occasional commute vehicle. The citywide average for bicycle commuting is broken out by area of the city and the reporting shows that in areas close to downtown up to 12% of people primarily commute by bike and up to 28% of people occasionally commute by bike. In terms of walking to work, 4% of people report that they primarily walk to work and 5% report that they occasionally walk to work. Staff proposes to combine the reported averages for bicycling or walking as a primary mode of transportation and apply the numbers in the area described above. Staff also proposes to amend these numbers as additional data on bicycling and walking are gathered.

This number will be based on either the City’s goal for how many people use the bike/ped trail system on a daily basis or it will be based on 2007 bicycle traffic counts taken at different locations around the city. Staff will continue to work on this number with the goal of finalizing it prior to implementation of the zoning code amendments.

The length of the trail system will either be the total length of trail designations in the city or the length of the trail between the two nearest bicycle and pedestrian arterials to the site. The latter option is consistent with the definition of trail system used in the SK Northwest case. As with other aspects of this proposal, staff will continue to refine the numbers.
5. If the applicant desires to use a private security force to patrol the trail area, the owner has signed an agreement holding the City harmless from all claims, suits, or actions of any nature, caused or arising out of the actions of the private security force, its subcontractors, agents, or employees.

B. Applicant maintenance. The applicant retains maintenance and liability responsibilities unless these responsibilities are accepted by the City. Where the applicant retains maintenance and liability responsibilities, the trail segment must be maintained at a level at least equal to those segments maintained by the City.

33.272.100080 Standards for City Acceptance of Deeded Land. The land may be donated to the City instead of granting an easement if the following standards are met:

A. The trail is constructed and meets the City’s trail construction standards or the trust fund option described under Subsection 33.515.260.B. has been applied.

B. The property owner meets the hazardous substances standards in the City’s standard trail easement agreement.
Commentary

33.430.250 E
This approval criterion has been amended to ensure that uses approved through a Conditional Use review are given status when evaluating the extent to which a proposal has minimized impacts to natural resource areas.
33.430.250 Approval Criteria

A. – D. No change

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

1. Proposed development minimizes the loss of resources and functional values, consistent with allowing those uses generally permitted or allowed in the base zone without a land use review or uses approved through a Conditional Use review;

2.-6. No change
CHAPTER 33.440
GREENWAY OVERLAY ZONES

Sections:
General
  33.440.010 Purpose
  33.440.030 Greenway Overlay Zones
  33.440.050 Relationship to State and Federal Reviews
  33.440.060 Sunset Provision
Use Regulations
  33.440.100 Use-Related Restrictions
Development Regulations
  33.440.200 Application of the Development Standards
  33.440.210 Development in the Greenway Setback
  33.440.220 Floor Area Ratios
  33.440.230 Landscaping
  33.440.240 Public Recreational Trails
  33.440.250 Public Viewpoints
  33.440.260 View Corridors
  33.440.270 Nonconforming Uses and Development
Greenway Review
  33.440.300 Purpose
  33.440.310 Where Greenway Review Applies
  33.440.320 Items Exempt from Greenway Review
  33.440.330 Procedures
  33.440.340 Notice to State Parks and Recreation Division
  33.440.345 Supplemental Application Requirements
  33.440.350 Approval Criteria
  33.440.360 Greenway Goal Exceptions
Map 440-1 Willamette Greenway Public Access

33.440.030 Greenway Overlay Zones

A. Purpose. The purpose of the greenway overlay zones is to implement the land use pattern identified in the Willamette Greenway Plan and the water quality requirements of Metro Code 3.07.340.B (Title 3). There are five greenway overlay zones, each with its own focus and purpose. The purpose of each of the overlay zones is stated below.

1. River Natural. The River Natural zone protects, conserves, and enhances land of scenic quality or of significant importance as wildlife habitat.

2. River Recreational. The River Recreational zone encourages river-dependent and river-related recreational uses which provide a variety of types of public access to and along the river, and which enhance the river's natural and scenic qualities.
Commentary

33.440.030.A.4 River Industrial Zone
The River Industrial zone will not longer exist as a Greenway Overlay Zone. All of the River Industrial zone is located in the North Reach and therefore the regulations will be located in the proposed River Overlay Zones chapter (33.475).

33.440.030.B This subsection is being amended to improve readability and clarity.
3. River General. The River General overlay zone allows for uses and development which are consistent with the base zoning, which allow for public use and enjoyment of the waterfront, and which enhance the river's natural and scenic qualities.

4. River Industrial. The River Industrial zone encourages and promotes the development of river-dependent and river-related industries which strengthen the economic viability of Portland as a marine shipping and industrial harbor, while preserving and enhancing the riparian habitat and providing public access where practical.

45. River Water Quality. The River Water Quality zone is designed to protect the functional values of water quality resources by limiting or mitigating the impact of development in the setback.

B. Where these regulations apply.

1. General. The regulations of this chapter apply to all land and fills and structures in water within the Willamette Greenway Plan boundary shown on Map 440-1 and designated on the Official Zoning Maps with River Natural, River Recreational, River General, River Industrial, or River Water Quality overlay zones.

(Renumber Map 440-1 to 440-2)

2. Exceptions.
   a. except that the area within the interior of Ross and Hardtack Islands which is presently subject to the Ross Island Management Plan will not be subject to the regulations of this chapter during such time as the Ross Island Management Plan remains in effect.
   b. In addition, the public trail standards of Section 33.440.240, below, apply to all lands designated within the Willamette Greenway Plan boundary designated with the recreational public trail symbol but which are outside of the greenway zones.
   c. However, the regulations of this chapter do not apply within the South Waterfront subdistrict of the Central City plan district. Sites in the South Waterfront subdistrict are instead subject to Section 33.510.253, Greenway Overlay Zone in South Waterfront Subdistrict.
   d. The regulations of this chapter do not apply to the River General and River Recreational overlay zones located within the Willamette River North Reach overlay boundary shown on Map 475-1. See Chapter 33.475, River Overlay Zones for regulations that apply within the Willamette River North Reach overlay boundary.
33.440.030.D The River Industrial zone will no longer exist as a Greenway Overlay Zone. All of the River Industrial zone is located in the North Reach and therefore the regulations will be located in the proposed River Overlay Zones chapter (33.475).
C. **Removal or remediation of hazardous substances.** For projects limited to the removal or remediation of hazardous substances conducted under ORS 465.200 through 465.510 and 465.900, the regulations of this chapter apply only to the portion of the site located within the boundaries of the removal or remedial action areas, as delineated by the Department of Environmental Quality.

D. **Map symbols.** The greenway overlay zones are shown on the Official Zoning Maps with the following map symbols:

<table>
<thead>
<tr>
<th>Overlay Zone</th>
<th>Map Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Natural</td>
<td>n</td>
</tr>
<tr>
<td>River Recreational</td>
<td>r</td>
</tr>
<tr>
<td>River General</td>
<td>g</td>
</tr>
<tr>
<td><strong>River Industrial</strong></td>
<td>i</td>
</tr>
<tr>
<td>River Water Quality</td>
<td>q</td>
</tr>
</tbody>
</table>

### 33.440.050 Relationship to State and Federal Reviews

In addition to any City requirements, all development within or riverward of the greenway setback, including fills, must be approved by the Oregon Division of State Lands and the U.S. Army Corp of Engineers.

### 33.440.060 Sunset Provision

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

### 33.440.100 Use-Related Restrictions

A. **Generally.** In most cases, the greenway zones do not restrict primary uses that are allowed in the base zones by right, with limitations, or as a conditional use. Exceptions to this are in the River Recreational, **River Industrial**, and River Water Quality zones. The restrictions on uses are stated in Subsection B. below. The location of development for an allowed use is regulated by the development standards below. **Any** changes to the land associated with the use are subject to greenway review unless exempted. See 33.440.310 and 33.440.320 below.

B. **Use restrictions.**

1. **River Recreational zone.** Primary uses in the River Recreational zone are limited to recreational uses which are river-dependent or river-related.

2. **River Industrial zone.** In the River Industrial zone, river-dependent and river-related primary uses are allowed by right on sites that front the river. Primary uses that are not river-dependent or river-related may be allowed on sites that front the river if they are approved through greenway review. They must comply with the approval criteria of 33.440.350.B. below. There are no special use restrictions on sites that do not have river frontage.
Commentary

33.440.100.B.4
The River Water Quality zone (q-zone) was not intended to affect the uses allowed in the Greenway. The zone applies in combination with other greenway overlay zones—some of which affect allowed use on a site. The purpose statement for the q-zone says that the zone is designed to protect the functional values of water quality resources by limiting or mitigating the impact of development in the setback (emphasis added). The use limitation as currently written has no practical affect on the allowed uses within the greenway setback. There are no greenway review approval criteria related to use in the q-zone, so greenway review is not required for a use that is not river-dependent or river-related. This amendment is intended to clarify the code and to ensure that development within the greenway setback will continue to require greenway review and will continue to be subject to the River Water Quality zone application requirements and approval criteria (limit impacts, mitigate for unavoidable impacts).

33.440.210.C.2
The River Water Quality zone (q-zone) applies an expanded setback area as a way to limit impacts from development on water quality resources. In the q-zone, the setback is expanded from 25 feet landward of top of bank to 50 feet or 200 feet landward from top of bank. While the expanded setback is intended to require minimization of impacts and mitigation for unavoidable impacts, the q-zone regulations were not intended to effectively prohibit non-river-dependent and non-river-related development within the expanded setback area. By requiring a greenway goal exception within the entire q-zone greenway setback, this type of development is effectively prohibited in the entire area. The proposed change limits the requirement for a greenway goal exception to the area that is within 25 feet from top of bank, consistent with the requirement in all other greenway zones. Greenway review will continue to be required for all development that is within the q-zone greenway setback.
23. River Natural and River General zones. There are no special use restrictions in the River Natural and River General zones.

24. River Water Quality zone. There are no special use restrictions associated specifically with the River Water Quality zone. However, any use restrictions that apply as a result of an accompanying Greenway Overlay zone also apply within the River Water Quality zone. In the River Water Quality zone, use restrictions apply only within the greenway setback. Primary uses that are river-dependent or river-related are allowed and do not need to comply with Section 33.440.345, Supplemental Application Requirements or the approval criteria of Subsection 33.440.350.G. Primary uses that are not river-dependent or river-related may be allowed if they are approved through greenway review. Existing uses that change to a non-river-dependent or non-river-related use are subject to greenway review.

33.440.210 Development in the Greenway Setback

A.-B. No change

C. Development regulations.

1. Development landward of the greenway setback. Development, exterior alterations, excavations, and fills landward of the greenway setback are not required to be river-dependent or river-related and are subject to greenway review, unless exempt under Section 33.440.320, Exemptions.

2. Development within the greenway setback.

   a. River-dependent and river-related development. Development, exterior alterations, excavations, or fills within the greenway setback that are river-dependent or river-related may be allowed if approved through greenway review, unless exempt under Section 33.440.320, Exemptions.

   b. Development that is not river-dependent or river-related.

      (1) General. Development, exterior alterations, excavations, or fills that are not river-dependent or river-related require greenway review and a Greenway Goal Exception to locate in the greenway setback.

      (2) Exception. Within the River Water Quality zone, development, exterior alterations, excavations, and fills that are not river-dependent or river-related do not require a Greenway Goal Exception when located outside of the area that is within the first 25 feet landward of the top of bank. See Figure 440-3.
Commentary

33.440.310.F When Greenway Review Applies
This exemption is being deleted because the River Industrial zone will not exist in the Greenway Overlay zones. All of the River Industrial zone is located in the North Reach and therefore the regulations for the River Industrial zone have been moved to the proposed River Overlay Zones chapter (33.475)
3. Development riverward of the greenway setback. Riverward of the greenway setback, development, exterior alterations, excavations, or fills that are river-dependent or river-related may be allowed if approved through greenway review, unless exempt under Section 33.440.320, Exemptions. Development, exterior alterations, excavations, or fills that are not river-dependent or river-related require greenway review and a Greenway Goal Exception to locate riverward of the greenway setback.

**Figure 440-3**
Greenway Goal Exception

(renumber Figure 440-3 to Figure 440-4)

**33.440.310 When Greenway Review Applies**
Unless exempted in 33.440.320 below, the following items are subject to greenway review:

A. New development;

B. Exterior alterations to development, including the removal of trees and shrubs and the application of herbicides;

C. A change of use or development within or riverward of the greenway setback, where the use or development is no longer river-dependent or river-related;

D. Changes to the land and structures in the water, including excavations and fills, bridges, and docks;

E. The dedication or extension of rights-of-way and any new development or improvements in rights-of-way when within the River Natural zone or within or riverward of the greenway setback; and

F. Non river-dependent or river-related primary uses in the River Industrial Zone; and

FG. Non river-dependent or river-related primary uses in the River Water Quality Zone.
Commentary

33.440.320.A  Exemptions from Greenway Review
This exemption is being deleted because the River Industrial zone will not exist in the Greenway Overlay zones. All of the River Industrial zone is located in the North Reach and therefore the regulations for the River Industrial zone have been moved to the proposed River Overlay Zones chapter (33.475)
33.440.320 Exemptions from Greenway Review

Greenway review is not required for any of the situations listed below. The situations listed below are still subject to the Greenway development standards. The situations are:

A. As illustrated in Figure 440-3, alterations to development in the River Industrial zone that are outside of the areas listed below:

1. The greenway setback;

2. Riverward of the greenway setback;

3. Within 50 feet landward of the greenway setback; or

4. Within 50 feet of River Natural zoned land;

BA. River-dependent development, exterior alterations, excavations, and fills in the River Water Quality zone are exempt from the requirements of Section 33.440.345, Supplemental Application Requirements, and the approval criteria of Subsection 33.440.350.G.

CB. Alterations to development landward of the greenway setback when not in or within 50 feet of River Natural zoned land, that either do not require a building permit or are valued at less than $25,000;

DC. Changes to the interior of a building where there are no exterior alterations;

ED. Development of or changes to the greenway trail or access paths provided that all development standards including the standards of Chapter 33.272, Public Recreational Trails, are met. Development of or changes in a viewpoint or view corridor, as indicated on Map 440-2, will require greenway review;

(Re-letter F through M to be E through L)
Commentary

33.440.345.A.1.b Supplemental Application Requirements

The application requirements have been amended to be consistent with the revised definition of top of bank and the new measurements section which describes how to measure top of bank.
33.440.345 Supplemental Application Requirements
In addition to the application requirements of Section 33.730.060, Application Requirements, the following information is required for Greenway review applications:

A. **Supplemental site plans.** One copy of each plan must be at a scale of at least one inch to 100 feet.

1. An existing conditions site plan, showing the following:
   a. Topography shown by contour lines at two foot vertical contours in areas of slope less than 10 percent and at five foot vertical contours in areas of slope ten percent or greater;
   b. The top of bank 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.
   c. The greenway setback area;
   d. Distribution outline of shrubs and ground covers with a list of most abundant species;
   e. Trees identified by species, including the location of the drip line;
   f. Streams, wetlands, other water bodies, and drainage patterns, using arrows to indicate the direction of major drainage flow;
   g. Existing improvements such as structures, buildings, utility lines, fences, paved areas, roads, culverts, and bridges;
   h. Areas of known soil or groundwater contamination, areas of uncontained hazardous materials, and underground storage tanks; and
   i. Stormwater management facilities.

2.-3. (No change)

B. (No change)
33.440.350 B  River Frontage Lots in the River Industrial zone
This approval criterion has been revised and moved to the River Overlay Zones chapter (33.475).
33.440.350 Approval Criteria
The approval criteria for a greenway review have been divided by location or situation. The divisions are not exclusive; a proposal must comply with all of the approval criteria that apply to the site. A greenway review application will be approved if the review body finds that the applicant has shown that all of the approval criteria are met.

A. For all greenway reviews. The Willamette Greenway design guidelines must be met for all greenway reviews.

B. River frontage lots in the River Industrial zone. In the River Industrial zone, uses that are not river-dependent or river-related may locate on river frontage lots when the site is found to be unsuitable for river-dependent or river-related uses. Considerations include such constraints as the size or dimensions of the site, distance or isolation from other river-dependent or river-related uses, and inadequate river access for river-dependent uses.

(Re-letter C through H to be B through G)
33.440.360 The approval criteria for a Greenway Goal Exception have been moved to a new chapter in the 800's section of the zoning code. This change is consistent with the structure of the zoning code that has approval criteria primarily in the 800's.
33.440.360—Greenway Goal Exception

A. When a greenway goal exception is required. Approval of an exception to Statewide Planning Goal 15—Willamette Greenway, is required to locate a development or right-of-way that is not river-dependent or river-related within or riverward of the greenway setback. A greenway goal exception is not required to add revetments to a riverbank.

B. Approval criteria. Requests for greenway goal exceptions will be approved if the review body finds the applicant to have shown that all of the following approval criteria are met:

1. The proposed use is allowed in the base zone by right, with limitations, or as a conditional use;

2. The proposal will not have a significant adverse effect on the inventoried greenway values of the site or on abutting sites or water areas;

3. The proposal will not significantly reduce lands available for river-dependent or river-related uses within the City;

4. The proposal will provide a significant public benefit;

5. The intensification of existing uses or change in use must be limited, to the greatest possible degree, so that such lands will remain compatible with the preservation of the natural, scenic, historical, and recreational qualities of such lands;

6. The proposal cannot reasonably be accommodated in a location which does not require a goal exception;

7. Of all other potential locations within the greenway that require a goal exception, there are none with significantly better long-term environmental, economic, social, and energy consequences after mitigation measures;

8. The proposal is compatible with other adjacent uses, or will be so rendered through measures designed to reduce adverse impacts; and

9. Development and fills riverward of the greenway setback must show that there are no practical on-site alternatives which achieve the same level of public benefit.
Commentary

Staff proposes to add the following maps to Chapter 33.440, Greenway Overlay Zones as a way to more clearly delineate the area within which the Greenway Overlay Zones regulations apply.
Map 440-1

Willamette River Greenway Overlay Boundary

Map 1 of 2

Bureau of Planning • City of Portland, Oregon
Map 440-1
Willamette River Greenway Overlay Boundary
Map 2 of 2

Bureau of Planning • City of Portland, Oregon
Maps 440-1 are being renumbered to 440-2 and the first three maps in series are being deleted. The first three maps show public access in the North Reach and the regulations for the North Reach will live in Chapter 33.475, River Overlay Zones.
33.510.253.D.3  The requirement to provide a public access easement for a trail or viewpoint will not apply when removal or remediation of hazardous substances is being conducted. The development of the greenway trail and viewpoints should occur when the site is being developed rather than when it is being cleaned up. In addition, the City does not want to add complexity and cost to the removal or remediation of hazardous substances.
33.510.253 Greenway Overlay Zone in South Waterfront Subdistrict

A-C No change

D. Required South Waterfront Greenway improvements.

1.-2. No change

3. Trail and pedestrian connections and public viewpoints.
   a. General. Except as provided below, when development on an ownership, or alterations to structures, the site, or rights-of-way are made which are over the thresholds of Paragraph D.1., above, the applicant must provide public access easements that will accommodate a trail, pedestrian connections, and viewpoints that meet the standards of Paragraph E.5., Trail and pedestrian connections; and Paragraph E.6., Public viewpoints;
   b. Exception. The requirements of subparagraph D.3.a, above, do not apply when the proposal is for the removal or remediation of hazardous substances and the actions are conducted under ORS 465.200 through 465.900.
Commentary

33.583  St. Johns Plan District
Amendments to the St. Johns plan district will address the noise impacts of industrial operations and reduce the potential for conflicts between industrial development and residential development.
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 potential for conflict between industrial operations and 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.
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 the area known to residents of St. Johns as the Baltimore Woods—the area along N. Decatur Street north of N. New York Avenue. This area is zoned General Employment 2 and is sandwiched between several heavy industrial operations along the waterfront, including the Port of Portland’s Toyota Terminal, and the residential neighborhood of Cathedral Park. In the recent past, medium density residential development has been approved for vacant lots in the Baltimore Woods through conditional use review. As a result of the increased residential use in the Baltimore Woods area and the rest of St. Johns, complaints about the noise, odor and light emanating from the industrial operations have increased. Neighbors and industrial property owners agree that steps need to be taken to reduce the potential for conflicts that can occur when residential development is built near industrial operations. Staff recommends several changes to address this issue:

1. New residential development will have a height limit of 40 feet. The height limit is being applied as a way to control the overall density and bulk of the development. The surrounding neighborhood is zoned R5 which is a low density, single-dwelling residential zone. The development that has occurred in the past 10 years in the Baltimore Woods has been at a higher density than R5—typically the density of the new development has been at an R2 level.

2. Require the owner of new residential units to sign a statement that acknowledges that the home is near industrial operations and that they will likely experience impacts from noise, odor and light and those impacts will exceed the level of impacts that can be expected in a neighborhood that is not directly adjacent to a working industrial area.

3. Require that new residential structures built within roughly 500 feet of an industrial or employment zone or the railroad tracks be built with a higher level of sound insulation. 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. (See section 33.583.300 for proposed code.)

4. Revise the conditional use approval criteria for residential uses in employment and industrial zones to require that the new residential development be protected against impacts from employment and industrial uses within 1000 feet of the site. Currently, the approval criteria only require that the new residential development be buffered against impacts from uses in the zone where the residential use will be established. (See subsection 33.815.130.E for proposed revisions to the approval criteria.)
33.583.290 Additional Regulations in the Baltimore Woods Subdistrict

A. **Purpose.** The regulations in this subdistrict are intended to reduce the potential for conflicts between industrial operations and nearby residential uses.

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

C. **Maximum height in the EG2 zone.** The maximum building height for new residential uses is 40 feet.

D. **Industrial impacts disclosure statement.** Prior to the issuance of a building permit for new residential construction or reconstruction where the total cost of improvements is 75 percent or more of the total assessed improvement value of the site, the owner must sign the City’s industrial impacts disclosure statement. The industrial impacts disclosure statement acknowledges that the property is located near employment and industrial uses and signifies the owner’s awareness of the associated nuisance impacts including noise, odor and light levels. The industrial impact disclosure statement must be recorded in the County records by the owner. The statement is available at the Development Services Center.
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 conflict between industrial operations and 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.
33.583.300 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.

B. 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).

C. 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.

D. City provides list. The City will provide a list of at least three registered engineers knowledgeable in acoustical engineering.
Map 583-1
Proposed
St Johns Plan District and Subdistricts

Bureau of Planning • City of Portland, Oregon
Map 583-2
Proposed
St Johns Plan District
Maximum Heights

Map Revised XXXXX, 2008

Bureau of Planning • City of Portland, Oregon
Map 583-3
Proposed
St Johns Plan District
Industrial Noise Impact Area

Bureau of Planning • City of Portland, Oregon
33.585 Swan Island Plan District
This plan district will be deleted. Many of the provisions of this plan district have been integrated into the regulations of the 33.475, River Overlay Zones, and some of the regulations are obsolete.
CHAPTER 33.585
SWAN ISLAND PLAN DISTRICT
(Added by Ord. No. 167054, effective 10/25/93. Amended by: Ord. No. 167650, effective 6/10/94; Ord. No. 174263, effective 4/15/00.)

Sections:
General
  33.585.010 Purpose
  33.585.020 Where the Regulations Apply
Use Regulations
  33.585.030 Additional Allowed Primary Uses
  33.585.040 Additional Allowed Accessory Uses
Development Standards
  33.585.050 Landscaping Within the Greenway Setback
Map 585-1 Swan Island Plan District

General

33.585.010 Purpose
The Swan Island Plan District is intended to foster the continuation and growth of the Portland Ship Repair Yard. The shipyard is a primary industry dependent on the Willamette River. Activities occurring in the shipyard cover a range that runs from heavy industrial to temporary housing for the crews of ships undergoing repair or refitting. The variety of sizes and types of ships and industrial construction projects attracted to the shipyard frequently requires that the area be reconfigured. The provisions of the Swan Island Plan District are intended to foster the growth and competitiveness of this unique waterfront basic industry. The provisions of this plan district replace the Swan Island Development Program's provisions affecting the transportation and circulation components of the island's development within the plan district.

33.585.020 Where the Regulations Apply
The regulations of this chapter apply to the Swan Island Plan District. The boundaries of the plan district are shown on Map 585-1 at the end of this chapter, and on the Official Zoning Maps.

Use Regulations

33.585.030 Additional Allowed Primary Uses

A. Purpose. Because the demand for use of the ship repair facilities is not constant it is in the public interest to allow nonriver-related or nonriver-dependent activities to temporarily use the underutilized portions of the repair yard facility.

B. Additional primary uses allowed. Within the Swan Island Plan District the following construction activities that are not river-related and river-dependent are permitted: construction of modular housing, large-scale metal fabrication of such things as cranes, bridge trusses and spans, platforms and derricks, and military and aeronautics machinery.
33.585.040—Additional Allowed Accessory Uses

A. Purpose. The nature of the ship repair activity brings to the site the ship’s crews whose living quarters are on board vessels which are being repaired. The large size and unique nature of the activity requires more flexibility in the area of accessory use activities than are allowed by the yard’s industrial zoning.

B. Additional accessory uses. The following additional accessory uses are allowed within the Swan Island Plan District.

1. Office: Temporary (up to 2 years) office trailers, office space for contractors and subcontractors, offices of naval architects, testing services and government offices.

2. Household or Group Living: Temporary (up to 2 years) housing for Navy and other vessel crews. Housing is allowed only if associated with a ship repair/refurbishing project.

3. Industrial Services: Welding, machine tooling, metalworking, carpentry, plumbing, and other building activities supporting a ship repair or other large construction project occurring in the shipyard are allowed for up to 2 years. Surface preparation and painting of ships and other equipment being constructed in the ship repair yards. Warehousing of materials and supplies needed for ship repair and fabrication projects. Exterior storage and laydown areas for ship’s and contractor’s equipment and supplies. Temporary storage of equipment used to cleanup or manage hazardous waste. In-ground fuel tanks and pumps for shipyard tenants. Grit storage and handling and grit recycling. Barge-mounted surface preparation and coating facilities. Temporary storage of vehicles and equipment.

Development Standards

33.585.050—Landscaping Within the Greenway Setback

A. Purpose. The Portland Ship Repair facilities are designed to allow their flexible modification and reconfiguration. This flexibility is essential both for the shipyard’s ability to accommodate multiple concurrent projects and its ability to accommodate the wide variety of ship types and sizes that are attracted to its facilities. The City’s greenway zone regulations assume that developed property along the Willamette will be relatively stable in its configuration and require that activities that are not water-related or water-dependent be separated from the top of the river’s bank by a landscaped greenway setback. The regulations of this section are intended to accommodate the ongoing changes in facility configuration inherent in the shipyard’s operations while also addressing the appearance and character of the Willamette’s riverbank.
B. **Alternative greenway setback landscaping requirements.** As an alternative to compliance with Section 33.440.210 Greenway Setback, a riverbank development mitigation plan may be developed and implemented. Such a mitigation plan must conform with the following requirements:

1. **Procedure.** The riverbank mitigation plan will be reviewed through a Type III procedure. Approval and compliance with the riverbank mitigation plan will constitute the required greenway review for building permit applications within the area covered by the mitigation plan.

2. **Approval Criteria.** The approval criteria for a riverbank mitigation plan are:
   
a. The mitigation plan includes a strategy for improving the appearance of the riverbank as seen from the water. Riverbank appearance improvements may include the use of landscaped areas, public art, temporary screening mechanisms, enhancement of riverbank habitat areas for fish, wildlife, and native vegetation; and, establishment of locations for public access to the riverbank and river surface.

   b. The mitigation plan recognizes that views of ships and industrial construction projects are in themselves interesting and represent an enhancement of the industrial area of the Willamette.

   c. The mitigation plan meets the Willamette Greenway Design Guidelines.
33.700.110 Prior Conditions of Approval
According to current code, conditions of approval for a greenway review will no longer apply in the North Reach after the River Plan is adopted because greenway review will no longer be in effect in the North Reach. While technically greenway review will no longer be in effect, River Review will replace greenway review, and many of the River Review approval criteria are similar in nature and purpose to greenway review approval criteria. In adopting the River Plan, the City is not retreating from the policies implemented through a greenway review, instead the City is merely renaming the review. Therefore, this section will be amended to ensure that the conditions of approval for a greenway review continue to apply after the River Plan/North Reach is adopted.
33.700.110 Prior Conditions of Land Use Approvals
This section addresses situations where a use, development, or land division was approved with conditions as part of a land use review under zoning or land division regulations that no longer apply to the site. Over time, there are instances when uses or development previously approved with conditions are subject to new zoning or land division regulations. This may result from a change of the content of zoning or land division regulations or from legislative zone changes including annexation rezonings.

A Conditions of approval prior to 1981. (No Change)

B. Conditions of approval after 1981. The regulations stated below apply to all prior conditions of approval for all types of land divisions, Planned Unit Developments (PUD), and any other quasi-judicial review approved in association with a land division or PUD, and for land use reviews applied for after January 1, 1981, unless the conditions of approval or the ordinance adopting the conditions provide for their continuance.

1.-3. (No Change)

4. Greenway review. If a use or development is subject to conditions under a greenway review, the conditions continue to apply.

45. Other land use actions. If the use or development was approved with conditions under a review which is no longer in effect on the site (such as site review, design review, significant environmental concern review), the conditions no longer apply.
33.810.020 Initiating a Comprehensive Plan Map Amendment

Map 810-1 shows prime industrial land in the working harbor. Prime industrial lands are areas possessing characteristics that are difficult or impossible to replace in the region. Nearly all of the industrial sanctuary land in the North Reach is identified as prime industrial land and by Metro as Regionally Significant Industrial Area. In the working harbor, these lands are where Oregon's primary rail, highway, water and pipeline infrastructure converge. The prime industrial land in the working harbor functions as intact, buffered districts and supports a significant share of the region's economic base and reduces freight transportation costs for Oregon consumers and exporters. The economic viability of the working harbor would be undermined by converting prime industrial land to another zone. For these reasons, staff proposes that quasi-judicial comprehensive plan map amendments be prohibited for land shown on Map 810-1.
33.810.020 Initiating a Comprehensive Plan Map Amendment

A. Quasi-Judicial.

1. General. Requests for Comprehensive Plan Map amendments that are quasi-judicial may be initiated by an applicant, the Planning Commission, or the City Council. The Director of BDS may request that the Planning Commission initiate an amendment. Initiations by a review body are made without prejudice towards the outcome.

2. Exception. Quasi-judicial Comprehensive Plan Map amendments are prohibited within prime industrial land shown on Map 810-1 unless initiated by the Planning Commission or City Council.

B. Legislative. Requests for Comprehensive Plan Map amendments that are legislative may be initiated by the Planning Commission or the City Council. Others may request the Planning Commission to consider an initiation. Initiations by a review body are made without prejudice towards the outcome.
Map 810-1

Proposed Prime Industrial Land

Map 1 of 2

Bureau of Planning • City of Portland, Oregon
Map 810-1
Proposed Prime Industrial Land
Map 2 of 2

Bureau of Planning • City of Portland, Oregon
Commentary

33.815.130.E Residential uses in the EG2, EG1, IG2, IG2 and IH zones.

The revisions to approval criterion E are intended to ensure that the future residents of projects in industrial and employments zones are protected from impacts from nearby light and heavy industrial uses. The changes clarify existing code language and policy.

The layout of the site and the design of the structures should address the types and levels of impacts from nearby industrial facilities. Nearby has been clarified to mean within 1000 feet of the site. This will ensure that potential conflicts (including complaints from neighbors) that could arise between the residents and the industrial uses are minimized to the extent practicable. It will also ensure that impacts from noise and light have little, if not zero, negative impact on the health and wellbeing of the residents.
CHAPTER 33.815
CONDITIONAL USES

33.815.130 Residential Uses in the EG1, EG2, IG1, IG2, and IH Zones
These approval criteria promote the preservation of land for industrial uses while allowing
residential uses in limited situations where they will not interfere with industry.
Residential uses in these zones are only protected from nuisance impacts, including noise, odor and light, to the same standard as uses allowed by right. In the IG1, IG2, and IH zones, criterion A., B., C., and D. must be met. In the EG1 and EG2 zones, criterion A., B., and C. must be met and either D. or E. The approval criteria are as follows:

A. The proposed use will not have a significant adverse effect on truck and freight
movement.

B. The transportation system is capable of supporting the proposed use in addition to the existing uses in the area. Evaluation factors include street designations and capacity, level of service or other performance measures; access to arterials; connectivity; transit availability; on-street parking impacts; access restrictions; neighborhood impacts; impacts on pedestrian, bicycle, and transit circulation; and safety for all modes;

C. City-designated scenic resources are preserved; and

D. The proposal is for houseboats or houseboat moorages which will not interfere with industrial use of the waterway or with adjacent industrial uses; or

E. The proposal is for new development where:

1. The proposal can be designed and developed so that housing is buffered protected from potential nuisance impacts, including noise, odor and light, from uses allowed by right in the zone and other employment and industrial zones within 1000 feet of the site; and

2. The proposal includes a site and building designs, a landscape plan, and a transportation plan that will limit to the maximum extent practicable any conflicts between residential, employment, and industrial uses. Techniques that can be used to limit conflicts include additional vegetation, setback or soundwalls.
This is a new chapter. For ease of readability, the text is not underlined.

33.840 **Greenway Goal Exception**
Statewide Planning Goal 15 requires that development be separated from the river. In order to meet this requirement the City of Portland implements a greenway setback that requires that development that is non-river-dependent and non-river-related set back a certain distance from the top of bank. In the South Waterfront subdistrict, the setback is 100 feet. Staff is proposing to require a 50 foot setback in certain areas of the North Reach. The bulk of the greenway area outside of the North Reach has 25 foot setback.

A greenway goal exception is currently required in situations where an applicant proposes to place development that is not river-dependent or river-related within or riverward of the greenway setback. Staff proposes to carry forward this requirement in the River Overlay Zones in the North Reach.
CHAPTER 33.840
GREENWAY GOAL EXCEPTION

Sections
33.840.010 Purpose
33.840.020 When a Greenway Goal Exception is Required
33.840.040 Procedure
33.840.100 Application Requirements
33.840.200 Approval Criteria

33.840.010 Purpose

33.840.020 When A Greenway Goal Exception is Required
Approval of an exception to Statewide Planning Goal 15 - Willamette Greenway, is required to locate a development or right-of-way that is not river-dependent or river-related within or riverward of the greenway or river setback. A greenway goal exception is not required to add revetments to a riverbank.

33.840.040 Procedure.
A greenway goal exception is processed through a Type III procedure.

33.840.200 Approval Criteria
Requests for a greenway goal exception will be approved if the review body finds that the applicant has shown that all of the following approval criteria are met:

A. The proposed use is allowed in the base zone by right, with limitations, or as a conditional use;

B. The proposal will not have a significant adverse effect on identified natural resources and functional values of the site or on abutting sites or water areas;

C. The proposal will not significantly reduce lands available for river-dependent or river-related uses within the City;

D. The proposal will provide a significant public benefit;

E. The intensification of existing uses or change in use must be limited, to the greatest possible degree, so that such lands will remain compatible with the preservation of the natural, scenic, historical, and recreational qualities of such lands;

F. The proposal cannot reasonably be accommodated in a location that does not require a goal exception;

G. Of all other potential locations within the greenway that require a goal exception, there are none with significantly better long-term environmental, economic, social, and energy consequences after mitigation measures;

H. The proposal is compatible with other adjacent uses, or will be so rendered through measures designed to reduce adverse impacts; and

I. Development and fills riverward of the river setback must show that there are no practical on-site alternatives that achieve the same level of public benefit.
Commentary

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

33.860 Comprehensive Natural Resource Plans
This chapter has been designed to allow a comprehensive review of multiple development actions occurring over time in natural resource areas. This review will allow applicants to plan development and mitigation actions within the City's natural resource overlay zones for up to 10 years. The City in turn will be able to evaluate the development proposals within the context of the overall cumulative impacts on natural resource values and require mitigation accordingly.
In addition, through a Comprehensive Natural Resource Plan, a property owner can gain flexibility to conduct mitigation in a phased approach that is more in line with how the development activity is anticipated to unfold over the years. This will help to avoid situations where mitigation for one development action is conducted and then removed a few years later when additional development is approved. The Comprehensive Natural Resource Plan will allow a coordinated approach to planning development over time so that development actions and mitigation will occur in a coordinated, efficient and holistic manner.

These plans are intended as a tool to provide flexibility for universities (where a Conditional use Master Plan is also required), or for large industrial facilities with ownerships that span multiple overlay zones (such as the Port). A Comprehensive Resource Review can take the place of Environmental Review, Pleasant Valley Resource Review or River Review. Comprehensive Resource Review can not take the place of a Greenway Review because Greenway Review includes much more than just natural resource considerations. Greenway Review also considers design elements, the relationship between the structures and the public realm and public access to the Willamette River Greenway. These are not issues that can be addressed at this time through a Comprehensive Natural Resource Plan. As the River Plan progresses into planning for the Central and South reaches, staff will integrate the greenway and river codes and at that time the option for utilizing the Comprehensive Natural Resource Plan process will be made available for the Central and South reaches.
CHAPTER 33.860
COMPREHENSIVE NATURAL RESOURCE PLANS

Sections
33.860.010 Purpose
33.860.020 When a Comprehensive Natural Resource Plan Is Allowed
33.860.030 Duration of a Comprehensive Natural Resource Plan
33.860.040 Procedure
33.860.050 Amendments to a Comprehensive Natural Resource Plan
33.860.100 Application Requirements
33.860.200 Approval Criteria
33.860.250 Overlay Zone Map Refinement

33.860.010 Purpose
For sites within one or more of the City’s natural resource overlay zones, a Comprehensive Natural Resource Plan is intended to allow for the following:

A. Comprehensive consideration of future plans for sites where multiple development actions are anticipated over time within one or more natural resource overlay zones. An adopted resource plan may substitute for case by case Environmental Review, Pleasant Valley Resource Review, or River Review. Comprehensive Natural Resource Plans may be completed at various levels of detail. Generally, the more specific the plan, the less review will be required as the future development is built;

B. Comprehensive consideration of the long-term cumulative impacts of development within a natural resource overlay zone, with attention paid to site-specific goals and objectives. With a Comprehensive Natural Resource Plan impacts to natural resources may be avoided by coordinating the timing of different development actions;

C. Mitigation and resource enhancement strategies that occur throughout the life of the plan, with greater flexibility for when and how specific mitigation actions occur in relation to specific development impacts;

D. A more integrated structure for considering overlay zone mapping refinements; and

E. Greater coordination with local, state and federal agencies.
3.860.040 Review Procedure
Tentative proposals may be identified in a Comprehensive Natural Resource Plan. These are development actions that are generally anticipated, but lack sufficient detail to evaluate the details. For example, construction management plans may not be available until the specific designs are completed. These tentative proposals can be approved subject to a second Type 1 review to evaluate those details.
33.860.020  When a Comprehensive Natural Resource Plan Is Allowed
A Comprehensive Natural Resource Plan is allowed as an alternative to Environmental Review, Pleasant Valley Resource Review, or River Review for sites that are fully or partially within one or more of the following natural resource overlay zones:

A. Environmental Protection;

B. Environmental Conservation;

C. Pleasant Valley Natural Resource; or

D. River Environmental.

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

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

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

A. Type III procedure. Unless the resource plan specifically provides differently, the following amendments to a resource plan are processed through a Type III procedure:

1. Any proposed development within the environmental protection overlay;

2. A proposed reduction in the area of the environmental protection overlay;

3. Proposed development to be added to the site that was not included in the original resource plan;

4. Substantial changes to conditions of approval; and

5. Proposed development that was previously reviewed, but was denied because it was found not to be in conformance with the approval criteria.
3.860.100.C Application Requirements
Comprehensive Natural Resource Plans may be completed at various levels of detail. Generally, the more specific the plan, the less review will be required as the future uses and development are built.
B. **Type II procedure.** Unless the resource plan specifically provides differently, amendments to a resource plan not specifically stated in Subsection A. above are processed through a Type II procedure.

33.860.100 **Application Requirements**

An application for a Comprehensive Natural Resource Plan must include the following components:

A. An inventory of identified significant natural resources and functional values present within the site. Identified resources and functional values are those identified and described in the applicable City-adopted Natural Resources Inventory. 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. 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;

B. A description of proposed natural resource overlay zoning map refinements to be approved with the adoption of the resource plan.

C. A list of proposed development within natural resource areas to be approved with the adoption of the resource plan. The list must identify the development that will be allowed without further land use reviews, and the development that will be tentatively approved.

D. Other information necessary to understand the natural resource impacts associated with the listed development proposals.

E. A list of management objectives and strategies that will be used to maintain or enhance identified resources and functional values.

F. A description of the specific natural resource enhancement and mitigation actions proposed with the resource plan. This may include actions to be taken both on- and off site, as well as specific physical actions and programmatic actions related to natural resource conservation and protection.

G. Site plans and other maps necessary to understand the listed development and mitigation actions anticipated over the life of the resource plan, including maps of areas where mitigation and enhancement will occur and where development and uses will occur.

H. Timetables for the development and mitigation actions;

I. A summary of anticipated state and federal permits required for the proposed development and mitigation actions; and

J. The supplemental application requirements that would be required if the proposal were going through Environmental Review, River Review, or Pleasant Valley Resource Review.
33.860.200 Approval Criteria
The approval criteria for a Comprehensive Natural Resource Plan have been modeled on the
approval criteria for a Conditional Use Master Plan. The criteria focus comprehensively on the
proposed development actions that will occur over the life of the plan. The criteria address the
cumulative impacts of development over time, mitigation and phasing for mitigation actions, and
the integration of resource conservation, protection and enhancement into the overall goals for
the site.

33.860.200.D This criterion describes how to balance the need for detailed plans with the
level of detail possible with a comprehensive plan. It allows certain actions to be identified for
additional review. Tentative approval is appropriate for development that is generally
anticipated but lacks specific development plans at the time of the resource plan submittal.
33.860.200 Approval Criteria
A Comprehensive Natural Resource Plan, or an amendment to a Comprehensive Natural Resource Plan, will be approved if it meets the following approval criteria:

A. The plan establishes coordinated phasing of the development actions within the natural resource overlay zones, with the goal of avoiding impacts that might arise if each action were planned separately. The plan includes the timing of anticipated construction access routes, building construction sequencing, and disturbance area boundaries for the site as a whole;

B. The plan will integrate natural resource conservation, protection and enhancement with other site planning plan goals and objectives;

C. On balance, the proposed mitigation demonstrates that all anticipated significant detrimental impacts on identified resources and functional values will be compensated for within the life of the plan. Each mitigation action is not required to directly correlate with a specific development proposal, but the overall mitigation plan will be evaluated against the overall list of anticipated uses and development actions, including cumulative impacts. The mitigation plan must include performance standards for judging mitigation success, a specific timetable for mitigation actions during the life of the plan, and a specific monitoring schedule;

D. The plan must demonstrate that all relevant approval criteria that would apply if the proposal was proceeding through an Environmental Review, Pleasant Valley Natural Resource Review, or River Review, including approval criteria from an adopted Natural Resource Management Plan, are met. Consideration will be given to the level of detail provided with the plan application. Proposals that address most of the relevant approval criteria, but are not detailed enough to address all of the relevant approval criteria may be identified for tentative approval. Conditions of approval may be imposed to list those aspects of the plan subject to tentative approval, and to specify which approval criteria need further evaluation through a later review.
33.860.250 Overlay Zone Map Refinement
The boundaries of the River Environmental, environmental conservation, environmental protection, and Pleasant Valley Natural Resource overlay zones may be modified as part of a Comprehensive Natural Resource Plan in any of the three situations stated below. All other requests for boundary changes are processed as a change of an overlay zone, as stated in Chapter 33.855, Zoning Map Amendments.

A. Creation of new resource areas. The natural resource overlay zone will be expanded as part of the Comprehensive Natural Resource Plan to include areas identified for mitigation.

B. Loss of existing resource areas. The natural resource overlay zone may be removed from an existing natural resource zone where approved development will eliminate the natural resource.

C. Minor modification of natural resource zone boundaries based on a more detailed site-specific environmental study. The natural resource 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 applicable City-adopted Natural Resources Inventory. The applicant may supplement the City’s inventory information with a site specific assessment. The proposed new overlay zone line must be consistent with any legislative intent expressed when the overlay was applied to the site.
Commentary

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

33.865 River Review
This chapter contains the review process, application requirements and approval criteria for River Review. This is a new chapter and it replaces Greenway Review in the North Reach. Staff proposes that River Review be located in the 800’s series of chapter to be consistent with the organization of the Zoning Code.
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;

- Help the City meet existing and future requirements pursuant to federal and state laws including the Clean Water Act, the Safe Drinking Water Act, the Endangered Species Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Migratory Bird Treaty Act, and the National Flood Insurance Act;

- 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 Plan staff anticipate that there will be fewer river reviews in the future than there are greenway reviews today due the new option of meeting river environmental overlay zone development standards and the elimination of the Greenway Design Guidelines.
33.865.020 When River Review is Required
River Review is required in the following situations:

A. When an applicant proposes a non river-dependent or non river-related primary use in the River Industrial Overlay Zone;

B. When a development or regulated activity in the River Environmental overlay zone is not exempt from the River Environmental overlay zone regulations and either does not meet the standards of subsection 33.475.430.B or there are no development standards applicable to the proposal;

C. When River Review is required to correct a violation of the River Environmental overlay zone regulations, as described in subsection 33.475.450.B.4; 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, except as described in subsection 33.475.450.B when River Review is required to correct a violation of the River Environmental overlay zone regulations.

33.865.040 Supplemental Application Requirements
In addition to the application requirements of Section 33.730.060, the following information is required when the River Review application is for development in the River Environmental overlay zone or 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;
[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 site plan 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.
33.865.040.B Supplemental narrative
The Willamette River Natural Resource Inventory is Volumes 3A and 3B of the River Plan.
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. The inventory provides site-specific information on natural resource features including:

      - open water;
      - shallow water (river depth 0-20 feet);
      - beach;
      - riparian vegetation;
      - upland and bottomland forest;
      - grassland;
      - flood area and floodplain;
      - wetlands, streams and ponds; and
      - special habitat area.

      The inventory also provides site-specific information on the functional values provided by the various natural resource features including:

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

      The inventory also provides information on special status species, which include wildlife or plants identified by Oregon Department of Fish and Wildlife, Oregon Natural Heritage Information Center, US Fish and Wildlife Service, or NOAA National Marine Fisheries Service that are known or reasonably expected to occur within or use a site. The application must contain current information regarding any special status species known or reasonably expected to occur on the site;
33.865.040.B.1.b
The certified mitigation bank is currently under development. Staff are working to have the bank operational by the time this code goes into effect.
(2) Identification of significant detrimental impacts that are unavoidable. Actions that could cause detrimental impacts and should be identified include:

- excavation and fill both in the water and above the ordinary high water mark. The quality and source of fill material is an important factor to be considered;
- clearing and grading;
- construction;
- vegetation removal;
- altering bathymetry;
- altering a vegetated riparian corridor or upland vegetated area;
- altering the floodplain;
- altering the temperature of the river especially the altering of existing cold water sources;

(3) Evaluation of 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. If the applicant proposes off-site mitigation through the purchase of credits from the River Restoration Program’s certified mitigation bank then the impact evaluation must include the Habitat Evaluation Procedure and Habitat Equivalency Assessment scores and all of the data the was produced in order to obtain the scores.

c. An impact evaluation for a violation includes:

(1) Description, by characteristics and quantity, of the resources and functional values on the site prior to the violation; and

(2) Determination of the impact of the violation on the resources and functional values.

2. Biological assessment. A biological assessment developed for the purposes of a federal or state permit may be submitted in place of some or all of the impact evaluation if the biological assessment includes the information described in subparagraph B.1.a. above. In the event that the applicant submits a biological assessment in place of some or all of the impact evaluation, the applicant must identify which aspects of the impact evaluation are covered by the biological assessment and, if necessary, identify which pieces of information will be included in the impact evaluation.
3. 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;

4. Construction management plan. Identify measures that will be taken during construction or remediation to protect the remaining resources and functional values at and near the construction site and provide a description of how areas that are not affected by the construction will be protected. For example, describe how trees will be protected, erosion controlled, construction equipment controlled, and the timing of construction; and

5. Mitigation or remediation plan. The purpose of a mitigation or remediation plan is to compensate for unavoidable significant detrimental impacts 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 certified mitigation bank, the mitigation plan must identify the total number and the type of credits being purchased;

   b. Documentation of coordination with appropriate local, regional, special district, state, and federal regulatory agencies;

   c. Construction timetables;

   d. Operations and 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.
**Commentary**

**33.865.100.A River frontage lots in the River Industrial Overlay Zone**
This approval criterion must be met when an applicant wants to develop a site in the River Industrial overlay zone with a use that is not river-dependent or river-related. In order to 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.
33.865.100  Approval Criteria.
Requests for a River Review will be approved if the review body finds that the applicant has shown that all applicable approval criteria have been met.

A.  River frontage lots in the River Industrial overlay zone. In the River Industrial overlay zone, primary uses that are not river-dependent or river-related may locate on a site that fronts the river only when the site is found to be unsuitable for river-dependent or river-related uses. Evaluation factors for this determination include physical constraints such as insufficient moorage depth, barriers to moorage construction or dredging, or the improbability of the provision of street or rail access. Other suitability considerations include the size or dimensions of the site, impracticable river access or other physical characteristics that significantly impede the ability of the site to be developed with a river-dependent or river-related use.

B. Development within the River Environmental overlay zone. The applicant’s impact evaluation must demonstrate that all of the following are met:

1. Resource enhancement projects:
   a. There will be no loss of total resource area; and
   b. There will be a significant improvement of at least one functional value.

2. All other proposals in the River Environmental overlay zone:
   a. Proposed development minimizes the loss of identified resources and functional values consistent with allowing the uses that are generally permitted or allowed in the base zone without a land use review or approved by a conditional use. 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. There will be no significant detrimental impact on areas of the site reserved for mitigation, areas within the River Environmental overlay zone not proposed for development at this time, downstream river habitat, or other sites where environmental restoration is in progress or complete;
33.865.100.B.2.d Mitigation

Mitigation for unavoidable impacts from development will be required for every river review. Mitigation ensures that the benefits of the natural resources and functional values that currently exist in the North Reach are maintained over time. The applicant will be required to show that mitigation adequately compensates for all significant detrimental impacts to identified natural resources and functional values including the interim loss of resource area and functionality. Lost resource features and functions on the site will have to be fully replaced and any interim loss of functionality that will happen between the time the impacts occur and the time the mitigation site is mature will have to be addressed. This reflects a policy of no-net-loss of resource features and functional values, and mitigation should reflect accurate replacement costs.

This methodology is based in part on two methodologies used by the federal government when assessing mitigation requirements. The first methodology is called Habitat Evaluation Procedure and is used by the U.S. Fish and Wildlife Service. The procedure is based on indicator species and uses models to calculate a score for the habitat area being evaluated. The scores are between 1 and 0, with 1 representing the highest value habitat. The HEP models are run and scores are derived for the site both before and after the development, or habitat alteration, occurs and the difference between the two scores represents the impact, or loss of habitat value, that must be mitigated for. The second methodology is called Habitat Equivalency Assessment and is used by the National Oceanic and Atmospheric Administration. HEA provides an analytical framework for estimating how much restoration is needed to compensate for the temporal loss of natural resources functions (i.e., the time between when the resource function is lost and the replacement habitat has grown into full function). The outcome of the HEA procedure is typically an additional number of square feet/acres/credits of restoration necessary to compensate for the interim loss of the habitat. While the models that go along with these two methodologies will not be required for river review, the principles of these two methodologies form the basis for the mitigation approval criterion.

This following diagram represents a way of relating the amount of mitigation due to the impacts and conditions on site:
d. Mitigation:

(1) The mitigation plan must demonstrate that all significant detrimental impacts on identified resources and functional values, and the interim loss of resources and functional values, will be compensated for. Generally this means that identified resources and functional values that will be lost as a result of the proposed development must be fully replaced.

(2) The amount of mitigation due may be increased or decreased from a 1:1 mitigation area ratio based on the amount and relative condition of the resources impacted by the proposal, the number of functional values displaced by the impacts from the proposal, the impact of the project design, the uniqueness of the resources and functional values, and the time lag between when the resources and functional values are lost due to the impacts and the point when the mitigation site achieves full function. The U.S. Fish and Wildlife Service’s Habitat Evaluation Procedure (HEP) and the National Oceanic and Atmospheric Administration’s Habitat Equivalency Assessment (HEA) may be used to quantify these factors.

(3) Mitigation must occur on-site when practicable and ecologically beneficial taking into consideration 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 within the mitigation area, contamination, and any other site specific issues or constraints. If on-site mitigation is not practicable or ecologically beneficial, then off-site mitigation is allowed through the purchase of mitigation credits from the River Restoration Program’s certified mitigation bank.

(4) To the extent practicable, the mitigation for unavoidable detrimental impacts to resources and functional values must be in-kind, meaning the resources and functional values restored or enhanced as mitigation must be the same kind of resource performing the same functional values as the impacted resource.
Commentary

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

The requirement that mitigation occur on-site for significant impacts to resources is aimed at protecting the connectivity of existing resources and functional values. 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 mitigation bank.

Staff is currently working to set up a certified mitigation bank to be used to off-set impacts from development in the North Reach. The crediting and debiting methodology used by the certified bank will likely be a combination of the HEP and HEA models. If the mitigation bank is not up and running by the time this code goes into effect, River Plan staff will work with staff from the Bureau of Development Services to establish an administrative rule that will guide how the number and total cost of off-site mitigation credits will be determined. The administrative rule will be based on the principles used by the HEP and HEA models and will establish unit costs for habitat replacement. The rule will be used until the River Restoration Program’s mitigation bank is up and running and the cost for mitigation credits has been established. 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.

Staff is working to have the mitigation bank will be certified by the Department of State Lands and the Army Corps of Engineers so that those agencies will be able to use the bank as a mitigation tool when reviewing permits.

33.865.100.B.2.e Other Regulatory Approvals

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

33.865.100.C Modifications to zone boundaries

These approval criteria are the same criteria used for modifications of Environmental Overlay zone boundaries and the boundary of the Pleasant Valley Natural Resource Overlay zone.
(5) 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’s identified natural resources and functional values.

e. If other regulatory approvals have been obtained from the Oregon Department of State Lands or the U.S. Army Corps of Engineers, the conditions of approval for this River Review must not contradict, circumvent or otherwise undermine decisions made by those agencies.

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

1. Successful mitigation. An approved mitigation plan has been successful and a new, restored, or enhanced resource exists which should be included in the River Environmental overlay zone; or

2. Approved loss of resource area. All of the following must be met:
   a. All approved development in a resource area has been completed;
   b. All mitigation required of this development has been successful; and
   c. The identified resources and functional values at the developed site no longer exist, or have been subject to a significant detrimental impact.
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 modifications to site-related development standards as part of the River Review process. These modifications are done as part of the River Review process and are not required to go through the adjustment process. Adjustments to use-related development standards (such as floor-area ratios, intensity of use, size of the use or concentration of uses) are subject to the adjustment process of Chapter 33.805. In order to approve these modifications, the review body must find that the development will result in greater protection of the resources and functional values identified on the site and will, on balance, be consistent with the purpose of the applicable regulations.

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

A. The remediation is done in the same area as the violation; and

B. The remediation plan demonstrates that after its implementation there will be:

1. No permanent loss of any type of resource or functional value;

2. A significant improvement of a least one functional value; and

3. There will be minimal loss of resources and functional values during remediation until the full remediation program is established.

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

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

**Ordinary High Water Mark:** This term is used in several chapters of the Zoning Code and currently the code does not provide a definition. There are several different understandings of how to identify this mark. Stakeholders have asked for a clear statement regarding which definition to apply in relation to Zoning Code regulations. The definition included here is the definition that the U.S. Army Corps of Engineers uses and requires that the location of the mark be determined in the field.

**Stream:** The modification to this definition provides additional clarity for the sub-categories of perennial, intermittent, and ephemeral streams. Staff proposes to measure the default top of bank differently based on whether the stream is perennial, intermittent or ephemeral.

**Top of Bank:** The existing definition of top of bank is problematic when the shoreline is variable. The definition has been clarified and a section has been added to 33.930 describing how to measure top of bank.

This new definition would also apply to other banks outside the North Reach. The change from degrees to percent slope makes this language more consistent with other code chapters, which refer to percent slope.
33.910.030 Definitions

**Bulkhead.** A retaining wall along a waterfront.

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

Environment-Related Definitions

- **Dredge Material.** Rock, gravel, sand, silt and other inorganic substances removed from waters and any materials, organic or inorganic used to fill waters.

- **Ordinary High Water Mark.** That line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

- **Stream.** An area where enough natural surface water flows to produce a stream channel, such as a river or creek, that carries flowing surface water during some portion of the year. This includes:
  - The water itself, including any vegetation, aquatic life, or habitat;
  - Beds and banks below the high water level which may contain water, whether or not water is actually present;
  - The floodplain between the high water level of connected side channels;
  - Beaver ponds, oxbows, and side channels if they are connected by surface flow to the stream during a portion of the year; and
  - Stream-associated wetlands.
    --Perennial stream. Stream that flows throughout the year; permanent stream;
    --Intermittent stream. Stream that flows only at certain times of the year, as when receiving water from springs or from a surface source; stream that does not flow continuously, as when water losses from evaporation or seepage exceed the available stream flow; and
    --Ephemeral stream. Stream or portion of stream that flows briefly in direct response to precipitation in the immediate vicinity, and with channels at all times above water table.

- **Top of Bank.** The first major change in the slope of the incline from the ordinary high water mark level of a water body. See Section 33.930.150, Measuring Top of Bank. A major change is a change of ten degrees or more. If there is no major change within a distance of 50 feet (measured horizontally) from the ordinary high water mark level, then the top of bank will be the default location described in Section 33.930.150, Measuring Top of Bank. the elevation 2 feet above the ordinary high water level.
Commentary

River-Related: The regions marine and rail transportation activity are concentrated in the North Reach and are interdependent parts of a multimodal trade gateway. Uses in the North Reach sometimes switch between primary reliance on river access and primary reliance on rail infrastructure. These switches are generally temporary in nature and are influenced by rail rates, switches between cargo types and moorage dredging limitations. The current definitions of river-dependent and river-related do not address this occurrence and the result could have negative implications for the long-term viability of the working harbor. Staff proposes to amend the definition of river-related so that a use that is primarily dependent on rail access is considered to be river-related if the site has a dock or other infrastructure that can be used for loading or unloading cargo from the ship or barge. The difference between river-dependent and river-related in this case is that the river-related use does not have to be dependent on access to a water body.

Staff also proposes to amend the definition of river-related to clearly allow accessory businesses that need to be located on a riverfront site because they are integral to the operation of the primary use.
River-Related. A use or development which is not directly dependent upon access to a water body but which provides goods or services that are directly associated with river-dependent land or waterway use or development, and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Uses that are not directly dependent upon access to a water body, but have infrastructure on-site that can transfer cargo or people to or from a water body, and are directly dependent upon access to an on-site rail right-of-way for transportation purposes are considered to be river-related. Accessory businesses that are located on sites with a primary river-dependent or rail-dependent use and that are integral to the industrial operation of the primary use (e.g., a contractor) or expand the use of specialized facilities of the primary use are considered river-related. Residences (including houseboats), parking areas, spoil and dump sites, roads and highways, restaurants, businesses, factories, and recreational vehicle parks are not generally considered dependent or related to water. Public trails, and viewpoints, and resource enhancement projects adjacent to the river are river-related development. Bridge exit and entrance ramps supported by piers or pillars, as opposed to fill, are river-related development. Removal or remedial actions of hazardous substances conducted under ORS 465.200 through 465.510 and 475.900 are considered river-related development for the duration of the removal or remedial action.
CHAPTER 33.930
MEASUREMENTS

Sections:
33.930.010 Purpose
33.930.020 Fractions
33.930.030 Measuring Distances
33.930.040 Measuring Distances on Maps
33.930.050 Measuring Height
33.930.060 Determining Average Slope
33.930.070 Determining the Area of the Facade of a Building
33.930.080 Determining the Plane of a Building Wall
33.930.090 Determining the Garage Wall Area
33.930.100 Measuring Lot Widths and Depths
33.930.110 Measuring Areas with Squares of Specified Dimensions
33.930.120 Setback Averaging
33.930.130 Measuring Tree Diameter
33.930.140 Measuring the Root Protection Zone
33.930.150 Measuring Top of Bank

33.930.120 Setback Averaging
Certain regulations allow for setbacks to be averaged. In these situations the required setback may be reduced to the average of the existing setbacks of the lots that are on both sides of the site. See Figure 930-18. The following rules apply in calculating the average:
The regulation of setback averaging detailed in this section does not apply to the river setback averaging that is allowed in Chapter 33.475, River Overlay Zones:

A. The setbacks used for the calculations must be for the same type of structure that is being averaged. For example, only garage entrance setbacks may be used to average a garage entrance setback, and only deck setbacks may be used to average a deck setback.

B. Only the setbacks on the lots that abut each side of the site and are on the same street may be used. Setbacks across the street or along a different street may not be used.

C. When one abutting lot is vacant or if the lot is a corner lot, then the average is of the setback of the nonvacant lot and the required setback for the zone.
Commentary

33.930.150 Measuring Top of Bank:
This more specific description of how to measure top of bank supplements the definition. See section 33.910.030 for the definition of top of bank.

This proposed measurement language responds to several common points of confusion identified by the Bureau of Development Services. The section provides prescriptive standards that must be followed in order to locate the top of bank and determine compliance with development standards that refer to the location of top of bank. Examples and graphics are used in describing how to measure top of bank. It should be recognized that all possible scenarios cannot be anticipated. In situations where the measurement does not provide a clear determination, the purpose and intent of the development standard in question and its relationship to other regulations and situations must be consulted. Common surveying practices may be taken into consideration when applying this measurement standard as well.

If resources allow, the Bureau of Planning and Sustainability will use new LIDAR mapping technology to establish a top of bank map for the North Reach within the next three years. This section may be further amended at that time.
33.930.150 Measuring Top of Bank
See Section 33.910.030, Environmental-Related Definitions, Top of Bank.

A. Using Percent Slope. Percent slope is determined by dividing the vertical rise by the horizontal run, and converting that decimal to a percentage. For example, a slope section that rises 10 feet over a distance of 20 feet is a 50 percent slope.

B. Identifying the Major Change in Slope that is the Top of Bank. A major change in slope is a change in percent slope of twenty or more, from a steeper grade to a less steep grade. For example, a change from a 40 percent slope to a 20 percent slope is a major change in the slope. See Figure 930-20.

Figure 930-20
33.930.150.C Default Top of Bank

For smaller streams, the existing definition has been difficult to apply consistently, especially in areas where a stream is in a deep ravine, or where the stream is within a relatively level plain. The proposed 50 foot and 15 foot default locations would create greater certainty, and reduce the number of instances where a survey is necessary to determine the top of bank.
C. **Default Top of Bank.** If there is no major change in slope within a distance of 50 feet (measured horizontally) from the ordinary high water mark, then the top of bank will be one of the following default locations:

--- For the Willamette and Columbia Rivers, the default top of bank is 50 feet (measured horizontally) from the ordinary high water mark. See Figure 930-21.

--- For perennial streams, the default top of bank is 15 feet (measured horizontally) from the ordinary high water mark.

--- For intermittent and ephemeral streams, the default top of bank is 15 feet (measured horizontally) from the centerline of the stream.

--- For seeps, wetlands and other water bodies, the default top of bank is 15 feet (measured horizontally) from the ordinary high water mark.

**Figure 930-21**
33.930.150.D  Relationship to Other Structures

The graphic below provides some examples of how the measurement of top of bank is influenced by structures located on or near the river bank. As mentioned previously, not all situations can be anticipated. In situations where the measurement standard does not provide a clear determination, the purpose and intent of the development standard in question and its relationship to other regulations and situations must be consulted. Common surveying practices may be taken into consideration when applying this measurement standard as well.
D. Relationship to Other Structures.

1. Where a structure straddles the top of bank, the top of bank line is drawn as a straight line through the structure, connecting the top of bank line on either side.

2. Where there is a vertical bulkhead or seawall, the top of bank is the point at the top of the bulkhead that is closest to the river.

3. Docks, pilings, slips, wharves and other similar structures built over the water are not factored into the determination of top of bank. Where there is a dock, wharf or other structure on the bank, measurements of slope are taken on the underlying dry land.

4. Where the bank itself is a structure, such as a rip-rap slope at the edge of reclaimed land, the top of bank line is based on the predominant slope of that structure, rather than the slope of individual boulders or structural elements.

Figure 930-22
24.50.060 Provisions for Flood Hazard Reduction

This regulation mandates that all fill placed at or below the flood protection elevation be balanced with an equal amount of soil removal. The regulation does not mandate that the cut occur on the site of the fill but allows the cut to be conducted within the same flood hazard area. In the past it has been hard for property owners in the North Reach to locate an off-site location for a balanced cut. The amendment to this subsection will facilitate off-site cutting by allowing the property owner to pay for the cut to be conducted at one of the North Reach Restoration Program sites. The amount of the fee will be determined by the Bureau of Environmental Services on a case-by-case basis but River Plan staff working with BES staff have estimated that the cost to conduct excavation will be approximately $1.85 per cubic foot. The actual cost for off-site balanced cutting will also include a management fee.

The River Restoration Program will track when a cut will occur on one of the programs restoration sites and will ensure that the cut occurs as close as possible to the location of the fill in order to off-set any localized affects of the fill.
Changes to Other City Titles

24.50.060 Provisions for Flood Hazard Reduction.

A-E. No change

F.

1-7 No change

8. Balanced Cut and Fill Required. In all Flood Management Areas of the City not addressed by Section 24.50.060 G, balanced cut and fill shall be required. All fill placed at or below the base flood elevation shall be balanced with at least an equal amount of soil material removal. Soil material removal shall be within the same flood hazard area identified in Section 24.50.050 A. through I.

a. Excavation shall not be counted as compensating for fill if such areas will be filled with water in non-storm winter conditions.

b. Temporary fills permitted during construction shall be removed.

c. Mitigation payment allowed in lieu of balanced cut and fill. Properties within the North Reach Overlay Boundary (See Map 33.475-1) may elect to pay into the River Restoration Fund in lieu of creating a balanced cut and fill. The amount of the payment shall be determined by the Bureau of Development Services.