

33.475 River Overlay Zones

475

Sections:

General

- 33.475.010 Purpose
- 33.475.020 River Overlay Zones
- 33.475.030 Where These Regulations Apply
- 33.475.050 Supplemental Permit Application Requirements

River General and River Recreational Overlay Zones

- 33.475.200 Use Regulations
- 33.475.210 River Setback
- 33.475.215 Marine Passenger Docks and Marine Passenger Terminals
- 33.475.220 Landscaping
- 33.475.225 Residential Docks
- 33.475.230 Exterior Lighting
- 33.475.235 Bird-safe Glazing
- 33.475.245 Archeological Resources Protection
- 33.475.250 Nonconforming Uses and Development
- 33.475.260 Property Line Adjustments

River Environmental Overlay Zone

- 33.475.400 Use Regulations
- 44.475.403 When These Regulations Apply
- 33.475.405 Items Exempt From These Regulations
- 33.475.410 Environmental Report
- 33.475.420 Review Procedures
- 33.475.430 Prohibitions
- 33.475.440 Development Standards
- 33.475.450 Corrections to Violations of the River Environmental Overlay Zone Regulations

Clean Up of Contaminated Sites

- 33.475.500 Removal or Remediation of Hazardous Substances

Map 475-1 River Overlay Boundary

Map 475-2 Willamette River Top of Bank

Map 475-3 Governor Tom McCall Waterfront Park and Eastbank Crescent

Map 475-4 Archaeological Sensitivity Areas

Map 475-5 Retail Sales and Service Allowed in OS

Map 475-6 Riparian Buffer Area

General

33.475.010 Purpose

The River Overlay zones generally promote the protection, conservation, restoration, enhancement and maintenance of the economic, natural, scenic, historical, and recreational qualities of lands along the Central and South reaches of the Willamette River. This purpose is achieved by applying

regulations that control development of land, change of use and intensification of use. The regulations reflect the desired character of the Central and South reaches of the Willamette River — a character that includes:

- A healthy river, floodplain, and watershed;
- A thriving riverfront with regional gathering spaces, active and passive recreational uses, maritime and commercial activities, and a welcoming mixed-use community; and
- Access to, along and in the river.

The River Overlay Zones also implement the City’s responsibilities under ORS 390.310 to 390.368.

33.475.020 River Overlay Zones

A. Purpose. The River Overlay zones implement the land use pattern identified in the *Central City 2035 Plan (2020)* and *River Plan / South Reach (2020)*. There are three River Overlay zones each with their own purpose:

1. **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 riverfront.
2. **River Recreational.** The River Recreational overlay zone encourages river-dependent and river-related recreational uses, which provide a variety of types of public access to, along, and in the river, and which enhance the river’s natural and scenic qualities.
3. **River Environmental.** The River Environmental overlay zone protects, conserves and enhances important natural resource functions and values while allowing environmentally sensitive development. The purpose of the zone is to limit the impacts from development and vegetation maintenance on the natural resources and functional values contained within the overlay zone. The River Environmental regulations encourage flexibility and innovation in site planning and provide for development that is carefully designed to be sensitive to the site’s protected resources. Mitigation is required for unavoidable impacts and is intended to compensate for impacts and improve natural resource features or functions over time. The River Environmental overlay zone applies to specific natural resource areas identified in two detailed studies: the *Willamette River Central Reach Natural Resources Protection Plan (2020)* and the *River Plan / South Reach Natural Resources Protection Plan (2020)*. This overlay zone always 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:

Overlay Zone	Map Symbol
River General	g*
River Recreational	r*
River Environmental	e

33.475.030 Where These Regulations Apply

A. General. The regulations of this chapter apply to the land and the water within the Central Reach and South Reach portions of the Willamette Greenway Plan boundary shown on Map 475-1 and designated on the Official Zoning Maps with the River

General (g*), the River Recreational (r*), and the River Environmental (e) overlay zones. The regulations of this chapter do not apply to the River General (g) or River Recreational (r) overlay zones located within the Greenway Overlay zone boundary shown on Map 440-1. See Chapter 33.440, Greenway Overlay zones for regulations that apply to the River General (g) and River Recreational (r) overlay zones within the Greenway Overlay zone boundary.

1. River General and River Recreational overlay zones. The regulations in Sections 33.475.200 through 33.475.260 apply to all sites in the River General and River Recreational overlay zones.
2. River Environmental overlay zone. The regulations in 33.475.400 through 33.475.450 apply to all sites in the River Environmental overlay zone.
3. Removal or remediation of hazardous substances. The regulations in 33.475.500 apply to actions to remove or remediate hazardous substances that have been approved or selected under Oregon or federal cleanup law. The regulations in 33.475.500 only apply to the portions of the site where the removal or remediation actions will occur; development or exterior alterations on other portions of the site outside of the removal or remediation areas must meet all other applicable regulations and procedural requirements of this chapter. Remedial actions within public rights of way and actions not approved or selected by a state or federal cleanup authority must meet all other applicable regulations and procedural requirements of this chapter and may not use 33.475.500. The applicant conducting the removal or remediation action may choose to meet the regulations of 33.475.500 or all other applicable regulations of this chapter.

33.475.050 Supplemental Permit Application Requirements

The following information is required when a permit for development or exterior alteration in the River Overlay zones is reviewed for compliance with this chapter.

- A. Supplemental site plans.** The following supplemental site plans are required when a permit for development or exterior alteration within the River Overlay zones is reviewed for compliance with this chapter. Five copies of each required site plan must be submitted. The site plans must show the entire site, must be drawn accurately to a scale that is between 1 inch to 50 feet and 1 inch to 10 feet, and must show all property lines with dimensions, a north arrow and a date. Additional site plans that show only a portion of the site may be submitted. All copies of site plans must be suitable for reproduction on paper no smaller than 8.5 x 11 inches and no larger than 36 x 48 inches; and
1. An existing conditions site plan including:
 - a. Location of all base zone and overlay zone lines on the site;
 - b. Location of the top of bank, river setback line, ordinary high water mark, and the landscaping sub areas;
 - c. Outline of any existing development, including existing river bank stabilization treatments, stormwater treatment facilities, environmental enhancement or mitigation areas, and trails and paths;

- d. Extent of the riparian buffer area, 100-year floodplain, and 1996 Flood Inundation Area;
 - e. The location, size including trunk and canopy crown diameter, and species of trees that are 1.5 inches or greater in diameter that are within and adjacent to the area where ground disturbance or vegetation removal will occur;
 - f. Vegetation other than trees within and adjacent to the area where ground disturbance or vegetation removal will occur. Vegetation may be shown as the area of cover with a list and percent cover of plant species present; and
 - g. 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 or exterior alterations plan including:
- a. Outline of the proposed project area, including:
 - (1) limits of the temporary and permanent disturbance areas, equipment staging and maneuvering areas, ingress and egress areas, and areas to be left undisturbed;
 - (2) areas of ground disturbance, stockpiling or grading;
 - (3) outfalls and river bank stabilization treatments;
 - (4) trails and paths;
 - (5) areas of vegetation to be left undisturbed including the root protection zone for trees;
 - (6) environmental enhancement or mitigation areas,
 - b. Location of the top of bank, river setback line, ordinary high water mark and the landscaping sub areas;
 - c. Extent of the riparian buffer area, 100-year floodplain, and 1996 Flood Inundation Area;
 - d. Location and size (cubic yards) of fill to be placed within the 100-year floodplain and 1996 Flood Inundation Area;
 - e. Location, size (cubic yards), and design of proposed cut within the 100-year floodplain and 1996 Flood Inundation Area;
 - f. Location and description of all proposed erosion control measures;
 - g. Location and description of all proposed stormwater management facilities;
 - h. Location of proposed fencing and identification of where the fencing is temporary and where it is permanent;
 - i. Location of exterior lighting; and

- j. A landscaping plan indicating the size, species, and location of all vegetation to be planted.
- B. Photos of the site.** Submission of photographs of the site are not required but are encouraged to supplement the existing conditions site plan.
- C. Mitigation bank credits.** If credits will be purchased from a City-approved mitigation bank to satisfy the requirements of 33.475.440.L, the applicant must provide proof of the purchase of credits.

River General and River Recreational Overlay Zones

33.475.200 Use Regulation

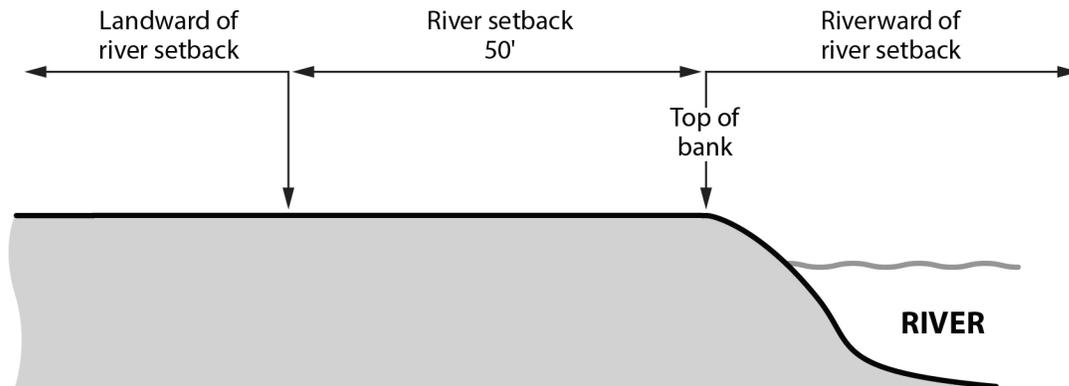
- A. River General overlay zone.** There are no special use restrictions in the River General overlay zone.
- B. River Recreational overlay zone.** Primary uses in the River Recreational overlay zone are limited to recreational uses that are river-dependent or river-related. On sites shown on Map 475-5, Retail Sales and Service use is allowed as an accessory use when the total amount of Retail Sales and Service use does not exceed 1,500 square feet of net building area.

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 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 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, in the River General overlay zone, a marine transportation terminal is a river-dependent primary use, but not all development associated with the terminal is river-dependent. The dock is river-dependent, but the parking lot and offices are not.
- C. The river setback.** The river setback extends from the top of the bank to a point 50 feet landward of the top of bank. See Figure 475-1. Top of bank is shown on Map 475-2. Where top of bank is not shown on Map 475-2, top of bank is determined as described in 33.910.030, Definitions, and 33.930.150, Measuring Top of Bank.

Where alteration to the river bank carried out to meet 33.475.440.H 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 river setback line must be at least 5 feet landward of the new top of bank line.

**Figure 475-1
River Setback**

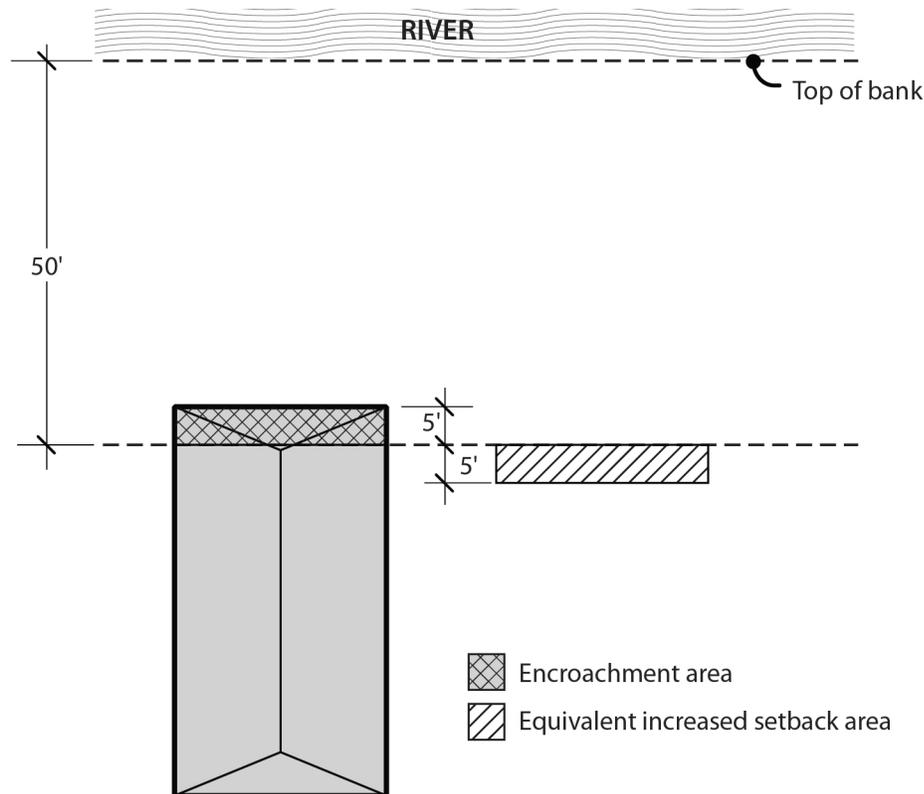


D. River setback standards.

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. Except as follows, development, exterior alterations, excavations, and fills within or riverward of the river setback must be river-dependent or river-related:
 - a. Development, exterior alterations, excavations, and fills that are not river-dependent or river-related are allowed to encroach into the river setback as described in Subsection E. Development, exterior alterations, excavations, and fills located riverward of the setback must be river-dependent or river-related, except as allowed by 33.475.250.D;
 - b. Development within a Historic or Conservation landmark located within or riverward of the river setback is not required to be river-dependent or river-related, and the floor area of the landmark and the exterior improvement area associated with the landmark can be increased up to a total of 10 percent within the river setback when the alteration does not bring the building or exterior improvement area closer to the river.
 - c. All other development, exterior alterations, excavations, and fills that are not river-dependent or river-related are allowed if approved through a Greenway Goal Exception.

E. Encroachment into the setback. Development that is not river-dependent or river-related may encroach up to 5 feet into the river setback provided that the setback is increased by an area equivalent in size to the encroachment area. The area that is increased must be located adjacent to the original setback. See Figure 475-2.

Figure 475-2
Encroachment into the River Setback



33.475.215 Marine Passenger Docks and Terminals

- A. Purpose.** River-related development provides goods or services that are directly associated with river-dependent land or waterway use. River-related development is typically allowed within the river setback, however certain river-related development associated with a marine passenger dock, while river-related in nature, does not need to be fully located within the river setback. In order to ensure that these particular types of river-related development do not overwhelm or dominate within the river setback, the total amount of footprint allowed within the setback is limited. The limitation will ensure that the river setback can accommodate other river-related or river-dependent development and provide opportunities for recreation, public access, and the conservation and enhancement of natural, scenic and historic resources.
- B. Standard.** Passenger waiting and queuing areas, security checkpoints, and machine shops associated with marine passenger docks for subregional travel or marine passenger terminals for regional travel are limited to a 5,000 square foot footprint within or riverward of the river setback.

33.475.220 Landscaping

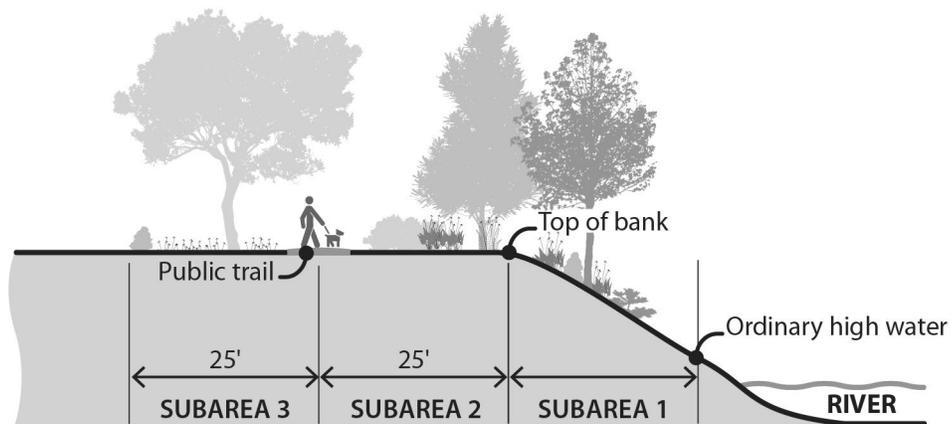
The following regulations apply to new development and exterior alterations to existing development in the River General and River Recreational overlay zones. Adjustments are prohibited.

A. Purpose. The landscaping regulations are intended to increase vegetation along the Willamette River. Adding a diversity of vegetation within the river setback will improve multiple ecosystem functions, increase fish and wildlife habitat, provide shade, cool the air, and create visual diversity. The regulations are also intended to accommodate safe and enjoyable public access to and along the Willamette River.

B. Required landscaping.

1. Governor Tom McCall Waterfront Park and the Eastbank Crescent beach, shown on Map 475-3, are exempt from this Section.
2. Required landscaping for all other areas. For areas not exempt from this section, land within and riverward of the river setback that is not covered with a building or other structure, existing vehicle area, or developed with a trail or viewing area must be landscaped to meet Table 475-1, Landscaping Planting Density. Subareas are shown on Figure 475-3 and described below. There are three planting densities allowed within each subarea. The applicant may choose which planting density standard to apply within each subarea, and more than one planting density may occur on a site. For example, the applicant may choose planting density 1 for all the subareas, or planting density 2 for subarea 1, planting density 3 for subarea 2, and planting density 1 for subarea 3.
 - a. Subareas:
 - (1) Subarea 1 extends from the ordinary high water mark to the top of bank of the Willamette River.
 - (2) Subarea 2 extends from the top of bank to a point 25 feet landward of the top of bank of the Willamette River.
 - (3) Subarea 3 extends from a point 25 feet landward of the top of bank to a point 50 feet landward of the top of bank of the Willamette River (top of bank is shown on Map 475-2). When the setback area is increased in conformance with 33.475.210.E., Encroachment into the setback, Subarea 3 extends into the increased setback area.

**Figure 475-3
Landscaping Area**



- b. Vegetation planted to meet the resource enhancement standards of 33.475.440.H or the mitigation standards of 33.475.440.L may be counted towards meeting the landscaping standard.
- c. Exceptions.
 - (1) Landscaping is not required within portions of sites where contamination removal or remediation actions meet the standards of 33.475.500;
 - (2) Landscaping is not required where the Fire Marshal finds that it would pose a safety hazard;
 - (3) Trees and shrubs are not required within utility easements but the area must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre;
 - (4) Trees and shrubs are not required within a Scenic overlay zone but the area must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. Trees may not be planted within a Scenic overlay zone; or
 - (5) If the area to be landscaped within subarea 1 has an average slope of 30 percent or steeper (30 percent slope represents a rise over run ratio of 1:3.3) and the area with an average slope of 30 percent or steeper is armored with rip rap, or the area within subarea 1 has rip rap that is at least four feet deep, then the required subarea 1 landscaping may be planted on an area of the site that is landward of the river setback but within the River overlay zones, or the applicant may pay a revegetation fee-in-lieu as described below. If the landscaping will be provided on-site, the total area outside of subarea 1 to be landscaped must be equivalent in size to the area that would have been required to be landscaped in subarea 1. More than one landscaped area may be provided to achieve the total, but other required landscaping may not count toward the total:
 - Revegetation fee-in-lieu use and administration. The revegetation fee is collected by Bureau of Development Services and is administered by the

Bureau of Environmental Services (BES). The fees collected are used for revegetation projects on public or private property within the River Environmental overlay zone.

- Calculation of required fee-in-lieu contributions. Applicants must contribute the cost to purchase and plant trees, shrubs and groundcover plants as set out in the next bullet. The cost to purchase and plant trees and plants will be adjusted annually as determined by the Director of BES based on current market prices for materials, labor and maintenance.
- Required fee-in-lieu contribution. The applicant must contribute the cost to purchase, plant and maintain one tree, three shrubs and four ground cover plants per 100 square feet of required planting area before a building permit will be issued. The fee calculation will be rounded up to the next multiple of \$10. The minimum area to be used in this calculation is 100 square feet. Calculations that are not a multiple of 100 will be rounded up to the next multiple of 100.

Table 475-1 Landscaping Planting Density			
Subarea	Planting Density 1: Small Trees[1]	Planting Density 2: Medium Trees[1]	Planting Density 3: Large Trees[1]
Landscaping Subarea 1	At least one tree, three shrubs, and four other ground cover plants must be planted for every 100 square feet of subarea. Trees may be clustered. All plants must be native.	At least one tree, six shrubs, and eight other ground cover plants must be planted for every 200 square feet of subarea. Trees may be clustered. All plants must be native.	At least one tree, nine shrubs, and 12 other ground cover plants must be planted for every 300 square feet of subarea. Trees may be clustered. All plants must be native.
Landscaping Subarea 2	Option 1: Same as Subarea 1 Option 2. At least one tree and three shrubs must be planted for every 100 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered.	Option 1: Same as Subarea 1 Option 2: At least one tree and six shrubs must be planted for every 200 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. Trees may be clustered.	Option 1: Same as Subarea 1 Option 2. At least one tree and nine shrubs must be planted for every 300 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre Trees may be clustered.
Landscaping Subarea 3	At least one tree must be planted for every 100 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. If shrubs are provided, a minimum 3 shrubs must be planted for every 100 square feet of subarea. Trees may be clustered.	At least one tree must be planted for every 200 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. If shrubs are provided, a minimum of 6 shrubs must be planted for every 200 square feet of subarea. Trees may be clustered.	At least one tree must be planted for every 300 square feet of subarea, and the entire subarea must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre. If shrubs are provided, a minimum of 9 shrubs must be planted for every 300 square feet of subarea. Trees may be clustered.

[1]Tree size is based on Title 11.60.020.C Canopy Size

C. Landscaped area site preparation. Before installing the required landscaping, the following standards must be met:

1. All prohibited and nuisance plants listed on the *Portland Plant List* must be removed within and riverward of the river setback.
2. All structures and debris located within and riverward of the river setback must be removed except for river-dependent and river-related structures, non-conforming development, erosion control measures, flood control facilities, large wood, and bioengineered structures. Examples of bioengineered structures include bundles of plant materials or soil cells wrapped in biodegradable fabrics.
3. If the area to be planted is not currently vegetated, the soil must be amended with 12 inches of growing medium. If the planting area is in subarea 1 has an average slope of 30 percent or steeper (30 percent slope represents a rise over run ratio of 1:3.3), and is armored with rip rap, the growing medium may be placed in planting wells. The composition of the growing medium must meet one of the following:
 - a. For all planting areas located outside of the flood hazard area, the growing medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume); or
 - b. For all planting areas located within the flood hazard area, the growing medium must be a blend of loamy soil, sand, small gravels and compost. A landscape architect or civil engineer must certify that the growing medium is adequate to support the establishment and growth of vegetation, and that any growing medium to be located in subarea 1 is heavier than water.
4. Placement of the growing medium is not allowed when the ground is frozen or saturated; and
5. Temporary erosion control measures are required until permanent stabilization measures are functional. Temporary erosion control measures must be biodegradable or removed after permanent stabilization measures are functional or within 3 years, whichever is sooner.

D. Plant requirements. Trees must be a minimum ½-inch caliper, bareroot, or live stakes, unless they are oak or madrone, which may be one gallon size. Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent. For planting areas over 600 square feet, at least two different tree species and sizes, three different shrub species, and four different groundcover species must be used.

E. Exception for sites with an existing nonconforming use, allowed use, limited use, or conditional use. The regulations of this subsection apply to sites with an existing nonconforming use, an allowed use, a limited use, or a conditional use. When alterations are made to a site that does not meet the requirements of this section, and the alterations are over the threshold of Paragraph E.1, the site must be brought into conformance with the development standards of this Section. The value of the alterations is based on the entire project, not individual building permits. The cost of the upgrades required by this chapter may be counted toward the cost of upgrades required by Subsection 33.258.070.D. However, the upgrades required by this chapter must be completed first.

1. Thresholds triggering compliance. The requirements of Subsections B, C, and D must be met when the value of the proposed alterations on the site, as determined by BDS, is more than \$300,000. Alterations and improvements stated in 33.258.070.D.2.a do not count toward the threshold.
2. Area of required improvements. Except as provided in 33.258.070.D.2.c(2), Exception for Sites with Ground Leases, required improvements must be made to the entire site.
3. Timing and cost of required improvements. The timing and cost of the required improvements is specified in 33.258.070.D.2.d. However, where 33.258.070.D.2.d refers to the standards listed in Subparagraph 33.258.070.D.2.b, the standards of Subsections A, B, C, and D, above, are also included.

33.475.225 Residential Docks

- A. Purpose.** The residential docks standard is intended to:
- Limit the impacts of new docks on shallow water habitat areas, which are critical for the survival of a variety of aquatic species;
 - Minimize harmful shading that predatory fish species use to prey on fish species listed under the Endangered Species Act;
 - Minimize disruption to water flow patterns and natural sediment transport along the shoreline; and
 - Maintain access to important foraging areas for waterfowl and other wildlife.
- B. Residential dock standards.** The following standards apply to new floating boat docking structures located in a residential zone.
1. The total square footage of the new floating boat docking structure must not exceed 200 square feet. Adjustments are prohibited; and
 2. The new floating boat docking structure may not be located within shallow water habitat. Adjustments are prohibited. Modifications are allowed through river review.

33.475.230 Exterior Lighting

- A. Purpose.** The standards for exterior lighting are intended to:
- Minimize light glare and light spill from artificial lighting and associated negative impacts on fish and wildlife and their habitats;
 - Reduce light pollution and glare impacts on residential developments;
 - Maintain public safety and security along public trails, in parks, along public streets, and on piers and gangways; and
 - Provide flexibility for river-dependent operations associated with docks.
- B. General standards.** The following standards apply to all exterior lights located within the River General overlay zone.
1. Exterior lights must not project light upward or to the side of the fixture;
 2. The top and sides of all exterior light fixtures must be shielded with 100 percent opaque materials; and

3. Lamps must fall below 3000K or within an S/P ratio range of 1 to 1.2.

C. Additional standards for areas near the Willamette River. The following standards apply to all permanent exterior lights located within and riverward of the river setback, and all permanent exterior lights located within 25 feet landward of the river setback. Exterior lights within Governor Tom McCall Waterfront Park, and exterior lights within public streets are exempt from this Subsection:

1. Exterior lights are allowed only if the lights are for the following uses or development:
 - a. Park and Open Area uses;
 - b. The major public trail;
 - c. A public viewing area; or
 - d. River-dependent or river-related development.
2. Structures that support exterior light fixtures must be set back at least 5 feet from the top of bank of the Willamette River unless the structure that supports the exterior light fixture is located on a dock, pier and gangway, and must be setback at least 30 feet from any other stream, drainageway, wetland or water body (top of bank is shown on Map 475-2);
3. Structures that support exterior light fixtures must be spaced at least 25 feet apart; and
4. Exterior lights must not project directly into the Willamette River.

33.475.235 Bird-safe Glazing

- A. Purpose.** The bird-safe glazing standards are intended to reduce the risk of bird-to-building collisions. The standards reduce the transparency, or reflectivity, of exterior windows and other glazed surfaces, thereby improving the visibility of exterior glazed surfaces to birds. The reduction in transparency applies to the portions of buildings that studies show are associated with the greatest occurrence of bird strikes.
- B. Development subject to the bird-safe exterior glazing standards.** The bird-safe glazing standards apply to new buildings and major remodeling projects in the South Reach. See Map 475-1. For new buildings, the standards apply per facade when the facade has 30 percent or more glazing, including spandrel glazing, within the first 60 feet measured from the grade adjacent to the facade. For major remodeling projects, the standards apply per facade when at least 75 percent of the facade is altered and the altered facade has 30 percent or more glazing, including spandrel glazing, within the first 60 feet measured from the grade adjacent to the facade. The standards also apply to glazing located directly adjacent to an ecoroof, roof garden, or other vegetated or landscaped roof area. The standards do not apply to houses, attached houses, manufactured homes, accessory dwelling units, duplexes, attached duplexes, triplexes, historic landmarks, and contributing resources in historic or conservation districts.
- C. Bird-safe exterior glazing standards.** At least 90 percent of the windows and glazing on the following portions of each facade must choose treatment patterns and application techniques from the *Portland Bird Safe Windows List*:

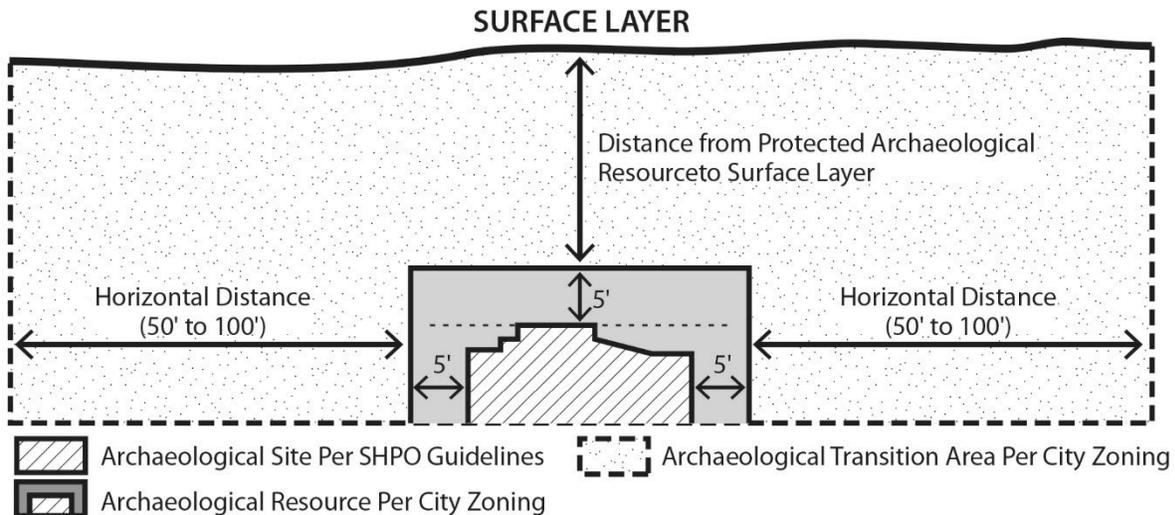
1. Windows and glazing, including glazed balcony railings, located within the first 60 feet of the building measured from the grade adjacent to the facade;
2. Windows and glazing located within the first 15 feet of the building above an adjacent ecoroof, roof garden, or other vegetated or landscaped roof area; and
3. The glazed portions of sky bridges or fences.

33.475.245 Archaeological Resources Protection

- A. Purpose.** Archaeological and historical evidence shows that Native Americans lived along the Columbia and Willamette rivers in the Portland region prior to European American contact and settlement. Pre-contact archaeological resources have historic, cultural, and scientific value to the general public and associated Native American tribes, whose ancestors lived in the area and harvested natural resources for subsistence and spiritual/ceremonial uses. Of special concern is the potential for ground disturbing activities to uncover human remains and archaeological resources that may be eligible for listing on the National Register of Historic Places. The regulations of this section provide a process to survey areas with a high probability of having archaeological resources prior to ground disturbing activities and development and to protect any identified archaeological resources and their functional values.
- B. Definitions.** The following definitions apply for the purposes of implementing this section:
1. Archaeological resource. A resource identified by the State Historic Preservation Office (SHPO) that meets one or both of the following:
 - a. An archaeological site associated with use by Native Americans prior to European-American contact that meets SHPO guidelines plus a 5-foot vertical buffer and a 5-foot horizontal buffer. The vertical buffer extends directly above the most shallow archaeological materials found in the site records. The horizontal buffer extends sideways from the archaeological resource. See Figure 475-4; or
 - b. A property of traditional religious and cultural importance as identified by SHPO and documented in writing by an appropriate tribe.
 2. Transition area. The transition area is the area directly between the archaeological resource and the surface layer and extends horizontally from the edge of the archaeological resource, as described below. See Figure 475-4. Archaeological features associated with a resource may also be encountered in the transition area:
 - a. For burials and villages, the horizontal distance is 100 feet from the archaeological resource.
 - b. For seasonal campsites; activity areas; and traditional, sacred, or cultural use sites, the horizontal distance is 50 feet from the archaeological resource.
 3. Appropriate tribe. One or more tribes identified by the Oregon Legislative Commission on Indian Services or the Washington Governor's Office of Indian Affairs as having the greatest interest in the archaeological resource.

4. Qualified archaeologist. An archaeologist on the SHPO list of qualified archaeologists knowledgeable in Native American lifeways in the Portland Basin in the pre-contact period.
5. Consultation with appropriate tribes. A process that follows SHPO procedures for tribal consultation on state archaeological permits.

Figure 475-4
Archeological Resource Subarea



- C. **Where these regulations apply.** The regulations of this section apply within the high sensitivity areas shown on Map 475-4.
- D. **When these regulations apply.** The regulations of this section apply to new development and alterations to existing development when the development causes more than 200 square feet of disturbance within the high sensitivity area.
- E. **Archaeological resource identification.** Prior to new development or alteration to existing development, the applicant must identify whether archaeological resources exist in the high sensitivity area. If archaeological resources exist, then the regulations of Subsections F. and G. apply. If no archaeological resources exist, then the regulations of Subsection F. and G. do not apply. The applicant must identify whether archaeological resources exist using one of the following two methods:
 1. Written documentation. The applicant must provide documentation that specifies that the high sensitivity area has been previously surveyed and that no archaeological resource was identified. The written documentation must be a certification letter from SHPO or a zoning confirmation letter from the Portland Bureau of Planning and Sustainability; or
 2. Archaeological survey. The applicant must conduct an archaeological survey to determine whether archaeological resources exist in the high sensitivity area. The archaeological survey must meet the following standards:

- a. A qualified archaeologist must perform the survey in consultation with appropriate tribes.
- b. The survey must include a pedestrian visual inspection of the ground surface of the high sensitivity area. The methodology of the pedestrian visual inspection shall be determined by the qualified archaeologist.
- c. The survey must include a subsurface investigation with at least 1 subsurface probe. The methodology of the subsurface investigation, including the number, location and dimensions of subsurface probes shall be determined by the qualified archaeologist.
- d. A survey report describing the methodology of the survey and whether any archaeological resources were found in the high sensitivity area must be submitted to the Bureau of Planning and Sustainability. If no archaeological resource is found, BPS will provide a zoning confirmation letter to the applicant waiving any additional compliance with this section. If the survey identifies an archaeological resource, the applicant must provide the following additional materials. In the interest of not disclosing the location of archaeological resources, the materials required below will be stamped "Confidential: Sensitive Information." Bureau of Planning and Sustainability and Bureau of Development Services staff will treat these materials in accordance with the City's nondisclosure policies:
 - (1) Site plan. A site plan, at a scale of 1 inch = 50 feet or larger, showing the building footprints, underground utilities and all other proposed ground disturbing activities, and an estimated ground disturbance depth. The site plan must show the existing topography of the site;
 - (2) Archaeological survey map. A map showing the locations of all subsurface probes completed for the site;
 - (3) Archaeological resource map. A map showing the boundaries of all archaeological resources that are recorded with SHPO or encountered during the archaeological survey. The map must also show the transition area associated with each archaeological resource and any conservation easements intended to protect archaeological resources. The Bureau of Planning and Sustainability will maintain a confidential atlas of identified archaeological resources within the archaeological sensitivity areas shown on Map 475-4; and
 - (4) SHPO archaeological reports. Any archaeological reports related to the site filed with SHPO.

F. Archaeological resource classification. When an archaeological resource has been identified, a qualified archaeologist must classify the archaeological resource as one or more of the following types:

1. Burial. A burial is an archaeological resource where there is evidence of human remains or funerary objects, as defined in Oregon Administrative Rules.

2. Village. A village is an archaeological resource where there is evidence of a relatively permanent residential location typically occupied during the winter and on an annual basis. Archaeological evidence may include remains of structures, storage pits, and midden deposits.
3. Seasonal campsite. A seasonal campsite is an archaeological resource where there is evidence of organized activity in extracting and processing resources on a seasonal basis.
4. Activity area. An activity area is an archaeological resource where specific activity (e.g., roasting camas bulbs or stone tool making) took place.
5. Traditional, sacred, or cultural use site. A traditional, sacred, or cultural use site is an archaeological resource where there is evidence of a sacred or ceremonial site, and may include vision quest sites, sites of other sacred ceremonies, and sweat lodge sites.

G. Archaeological resource protection standards. The following standards apply to identified archaeological resources:

1. Application of development standards. Where more than one archaeological resource is identified together:
 - a. If one of the archaeological resources is a burial, the standards for burials apply to all resources;
 - b. If any of the archaeological resources are villages; or traditional, sacred, or cultural use sites, and there is no burial, the standards for villages; or traditional, sacred, or cultural use sites apply to all resources;
 - c. If all of the archaeological resources are seasonal campsites or activity areas, the standards for seasonal campsites or activity areas apply to all resources.
2. Ground disturbing activities within the archaeological resource and transition area are prohibited except as follows:
 - a. Ongoing and low-impact activities. Except for the archaeological resource area of burials, the following ongoing and low-impact activities are allowed in archaeological resource and transition areas:
 - (1) Maintenance, repair, and replacement of existing structures, exterior improvements, roads, boat launch areas, and utilities when the activity does not enlarge the existing disturbance area horizontally or vertically;
 - (2) Maintenance of lawns and landscape areas, including the installation of new irrigation and drainage facilities, and new erosion control features;
 - (3) Change of crop type or farming technique on land currently in agricultural use;
 - (4) Alterations of buildings that do not increase building coverage;
 - (5) Operation, maintenance, and repair of the following existing facilities: irrigation systems, drainage facilities and conveyance channels, stormwater detention areas, pumping stations, erosion control and soil stabilization

- features, and pollution reduction facilities. Maintenance of drainage facilities includes the dredging and channel cleaning of existing drainage facilities and vegetative maintenance within the minimum floodway cross section of drainageways where all spoils are placed outside environmental zones and the high sensitivity area;
- (6) Removing a nuisance tree listed on the *Portland Plant List*. When no other development is proposed, tree removal is subject to the tree permit requirements of Title 11, Trees;
 - (7) Planting of native vegetation listed on the *Portland Plant List* when planted with hand-held equipment;
 - (8) Public street and sidewalk improvements that do not enlarge the existing disturbance area horizontally or vertically; and
 - (9) Constructing paved parking lots and circulation areas in the transition area.
- b. Activities allowed with an archaeological resource recovery plan and MOU. For villages; seasonal campsites; activity areas; and traditional, sacred, or cultural use sites, ground disturbing activities associated with uses otherwise permitted by this Title are allowed if an archaeological resource recovery plan that meets the following is submitted. Ground disturbing activities other than allowed by Subparagraph G.2.a. are prohibited within the archaeological resource and transition area of a burial:
- (1) An archaeological resource recovery plan allows for the removal of archaeological materials following an archaeological evaluation, a consultation process with appropriate tribes, and a private agreement (Memorandum of Understanding) between the applicant, property owner, SHPO and tribes. The required steps include:
 - Archaeological evaluation. A detailed archaeological evaluation must be completed. The evaluation must be conducted by a qualified archaeologist. The evaluation must meet SHPO standards for archaeological resource recovery projects.
 - Consultation with appropriate tribes.
 - The applicant must contact the appropriate tribes, by registered or certified mail, to request comments on archaeological survey results and archaeological resource recovery plan and offer a meeting. The tribes should reply to the contact within 14 days and hold a meeting within 30 days of the date of the initial contact. If the appropriate tribes do not reply within 30 days, the applicant may apply for a state archaeological permit and implement the terms of that permit without further delay. The tribes may schedule the meeting with a tribal council, one of its committees, or designee.
 - The purpose of the meeting is to allow tribal representatives and the applicant to review archaeological survey results and discuss the archaeological resource recovery plan. More than one meeting may be held.

- After the meetings, and before applying for a building permit, the applicant must send a letter to the appropriate tribes. The letter will explain any changes in the project's design and archaeological resource recovery plan since the date of the last meeting.
 - Development of a Memorandum of Understanding (MOU). The applicant must develop a Memorandum of Understanding (MOU) signed by the applicant, the property owner, SHPO and at least one appropriate tribe. The MOU must specify the care and disposition of any archaeological materials recovered on the site. The MOU must also specify how the parties will communicate and how on-site monitoring will proceed during project construction.
 - Archaeological resource recovery plans, letters to tribal governments and Memoranda of Understanding signed with SHPO and tribal governments must be filed with the building permit.
- (2) For villages and traditional, sacred, or cultural use sites, an archaeological resource recovery plan is limited to the removal of archaeological materials necessary to construct a paved parking lot or vehicle circulation area within an archaeological resource. The paved area must provide spill containment so that chemicals do not degrade the remaining archaeological resource.
- (3) For seasonal campsites and activity areas, an archaeological resource recovery plan may remove some or all archaeological materials, as negotiated with the appropriate tribes and specified in the archaeological resource recovery plan.
3. Modification of other development standards. For sites with identified archaeological resources, the following development standards are modified:
- a. Minimum building setbacks are reduced to zero;
 - b. Minimum number of off-street parking spaces is reduced to zero; and
 - c. For purposes of meeting minimum landscaping requirements, the applicant may exclude the archaeological resource area from the total site area.

33.475.250 Nonconforming Uses and Development

Nonconforming uses and development in the River General overlay zone are subject to the regulations and reviews of Chapter 33.258, Nonconforming Situations. The additional regulations stated below apply to development within or riverward of the river setback that is not river-dependent or river-related:

- A.** The development may continue;
- B.** The development may be changed to an allowed river-dependent or river-related development by right;
- C.** The development may be changed to another nonconforming development if within the existing building. If outdoors, it may not be changed to another nonconforming development; and

- D.** The development may be expanded, but, except as allowed below, not within or riverward of the river setback. Expansion includes adding additional floor area;
1. An existing house located in the river setback may be expanded vertically within the existing building footprint. For the purpose of this standard, building footprint is the perimeter of the building established by the exterior faces of the building foundation. Building footprint does not include porches, decks or eaves. Existing exterior building walls that project beyond the building foundation may be expanded vertically, provided the area of the building foundation is not increased; and
 2. An existing seawall located in the river setback may be expanded for structural reinforcement only, and when the following are met:
 - a. The thickness of the seawall may be increased up to 1 foot. The thickness is measured from the riverward face of the seawall to the landward face of the seawall. Tiebacks may be added in addition to the allowed increase in thickness if no permanent disturbance area associated with the tiebacks is proposed;
 - b. The height and length of the seawall may not be increased;
 - c. Temporary disturbance area located within and riverward of the river setback must be replanted to meet the relevant subarea standards of Table 475-1, and temporary disturbance located landward of the river setback is replanted to meet the subarea 3 standard of Table 475-1;
 - d. Vegetation removal is allowed as specified in 33.475.440.K.; and
 - e. Mitigation is required as specified in 33.475.440.L.

33.475.260 Property Line Adjustments

Property line adjustments may not result in a property that is in more than one river overlay zone except as follows:

- A.** The second overlay zone is the River Environmental overlay zone;
- B.** The property line adjustment involves at least one property owned by Portland Parks and Recreation.

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.

33.475.403 When These Regulations Apply

Unless exempted by 33.475.405, the regulations apply to:

- A.** Development;
- B.** Planting, removing, pruning, mowing, clearing, burning or poisoning trees or vegetation;

- C. Changing topography, grading, excavation or filling;
- D. Resource enhancement; and
- E. All land divisions and property line adjustments except for middle housing land divisions. The regulations of this chapter do apply to development proposed on a middle housing land division site.

33.475.405 Items Exempt From These Regulations

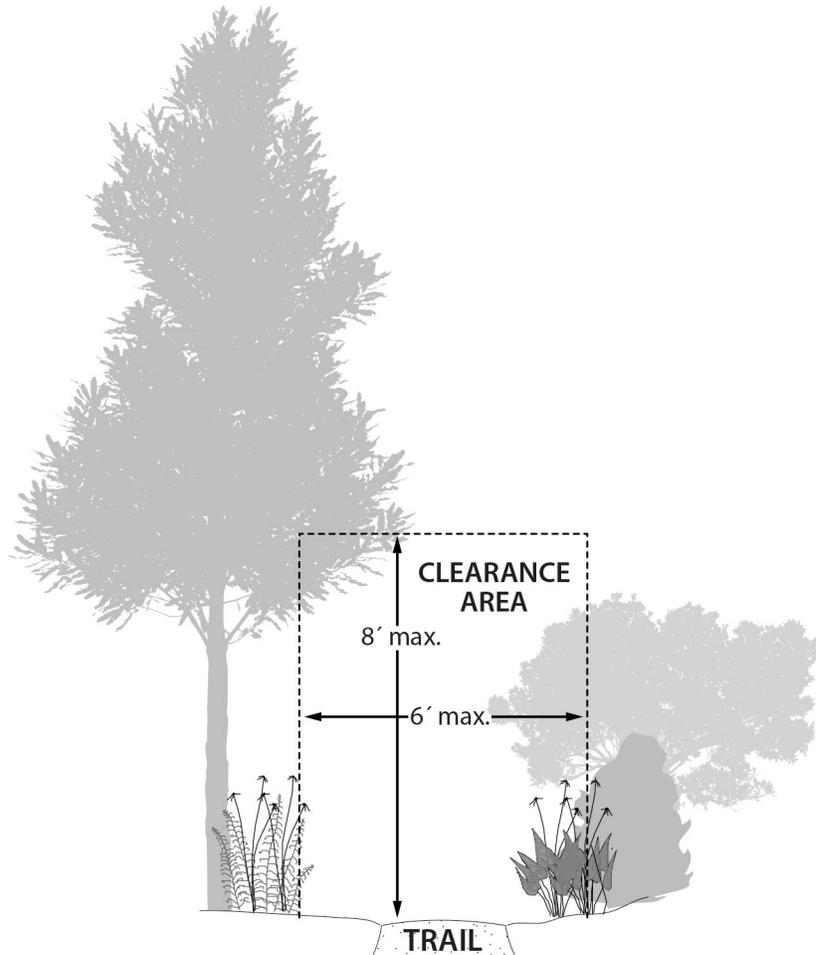
The following items are exempt from the River Environmental overlay zone regulations:

- A. Change of ownership;
- B. Temporary emergency procedures necessary for the protection of life, health, safety, or property;
- C. Changes to the interior of a building;
- D. Operation, maintenance, alterations, repair, and replacement of existing structures, exterior improvements, irrigation systems, stormwater facilities, non-potable water systems, roads, utilities, public trails and paths, public viewpoints, public interpretive facilities, and erosion control measures. Alterations, repair and replacement is not exempt whenever total square footage, building coverage or utility size is increased. Replacement of an existing floating boat dock structure located in a residential zone and alteration or repair of more than 50 percent of the combined constituent systems of an existing floating boat dock structure located in a residential zone is not exempt;
- E. Dredging, channel maintenance, and the removal of materials from the river as follows:
 - 1. Dredging, channel maintenance, and the removal of material within the federal navigation channel.
 - 2. Dredging, channel maintenance, and the removal of materials outside the federal navigation channel as follows:
 - a. Dredging and the removal of materials in waters that are 35 feet deep or deeper, measured from the ordinary high water mark; or
 - b. 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. Removal of structures and debris located landward of the ordinary high water mark of the Willamette River, streams or drainageways, or more than 30 feet from a wetland;
- G. Installation of temporary erosion control measures;
- H. Alterations to buildings that do not change the building footprint and do not require adjustments to site-related development standards;
- I. Continued maintenance of existing gardens, lawns, and other planted areas, including the installation of new plants except those listed on the Nuisance Plants List;

- J.** Changes to existing disturbance areas to accommodate outdoor activities such as events, play areas and gardens as long as plantings do not include plants on the Nuisance Plants List and no trees 1.5 or more inches in diameter are removed within or riverward of the river setback and no trees 3 or more inches in diameter are removed landward of the river setback;
- K.** Development located on an existing legally-permitted dock, wharf, or pier. A dock, wharf, or pier includes the gangway that provides access to the dock, wharf or pier;
- L.** Removal or pruning of vegetation as follows:
 - 1. Removal or pruning of non-tree vegetation listed on the Nuisance Plant List and other non-tree, non-native vegetation located within the riparian buffer area or within or riverward of the river setback. Temporary disturbance must be replanted to meet the relevant subarea standards of Table 475-1.
 - 2. Removal or pruning in areas landward of the river setback and outside the riparian buffer area.
 - a. Removal or pruning of non-native trees and trees on the Nuisance Plants List that are not more than 3 inches in diameter. Temporary disturbance area must be replanted to meet the subarea 3 standard of Table 475-1.
 - b. Removal or pruning of other non-native vegetation and vegetation on the Nuisance Plants List. Temporary disturbance must be replanted to meet the relevant subarea standards of Table 475-1.
- M.** Planting of native vegetation listed on the Portland Plant List when planted with hand held equipment or equipment with a wheel surface-to-ground pressure of no more than 7.5 psi;
- N.** Public street and sidewalk improvements that are located within the developed portion of a public right-of-way.
- O.** Groundwater monitoring wells constructed to the standards of the Oregon Water Resources Department and water quality monitoring stations when access is by foot only;
- P.** 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, no native trees over 1.5 inches in diameter are removed within or riverward of the river setback, no trees over 3 inches are removed landward of the river setback, and disturbed area is planted with the following (top of bank is shown on Map 475-2):
 - 1. Three shrubs per 100 square feet; and
 - 2. Grass and forb seed mix at a ratio of 30 pounds per acre restored to pre-construction conditions;
- Q.** 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, no ground is disturbed riverward of top of bank, no trees over 1.5 inches in diameter are removed within or riverward of the river setback, no trees over 3 inches are removed landward of the river setback, and disturbance area is planted with the following (top of bank is shown on Map 475-2):

1. Three shrubs per 100 square feet; and
 2. Grass and forb seed mix at a ratio of 30 pounds per acre;
- R.** Utilities installed above or below developed portions of the public right-of-way, and stormwater management facilities within the developed portions of a public right-of-way provided that no ground is disturbed riverward of top of bank (top of bank is shown on Map 475-2);
- S.** Installation of fencing in the following situations:
1. Fencing on an existing paved surface;
 2. Fencing around stormwater facilities that meet the Stormwater Management Manual; or
 3. 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;
- T.** Installation of signage provided no trees over 1.5 inches in diameter are removed within or riverward of the river setback, and no trees over 3 inches are removed landward of the river setback; and
- U.** Removal of trash, provided that native vegetation is not removed or damaged. This includes removal of trash from the river bed and from the water. Removal of trash does not include the removal or remediation of hazardous substances.
- V.** Trails meeting all of the following:
1. Trails must be confined to a single ownership or be within a public trail easement
 2. Trail width does not exceed 36 inches, stair or ramp width does not exceed 50 inches, and trail grade does not exceed 20 percent except for the portion of the trail containing stairs;
 3. Plant trimming must not exceed a height of 8 feet and a width of 6 feet as shown in Figure 475-5;
 4. No native trees 1.5 or more inches in diameter and no native shrubs larger than 5 feet tall may be removed;
 5. The trail is not paved; and
 6. The trail is at least 15 feet from the top of bank of all water bodies.

Figure 475-5
Trail Vegetation Pruning and Maintenance Area



33.475.410 Environmental Report

The application of the River Environmental overlay zone is based on two detailed studies: the *Willamette River Central Reach Natural Resources Protection Plan (2020)* and the *Willamette River South Reach Natural Resources Protection Plan (2020)*. The report identifies the type, location, extent and relative condition of natural resource features and describes the 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, exterior alterations, property line adjustments, and land divisions will be reviewed through one of the following tracks:

- A. Standards.** Several specific types of development, exterior alterations, property line adjustments, and land divisions are allowed within the River Environmental overlay zone if the proposal meets certain standards. 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. Proposals that do not meet all the standards within each relevant section require approval through River Review. When a proposal can meet the standards, the applicant may choose to meet the objective standards of this section or go through the discretionary River Review process. 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 33.475.440.

- B. Review.** River Review is required when the proposed development, exterior alteration, property line adjustments, or land division is subject to the River Environmental overlay zone regulations and the development, exterior alteration, or land division either does not meet the River Environmental overlay zone development standards or there are no River Environmental overlay zone development standards that apply to the proposal. The process and approval criteria for River Review can be found in Chapter 33.865, River Review.

33.475.430 Prohibitions

The following are prohibited within the River Environmental overlay zone:

- A.** The packaging or storage of hazardous substances except as follows:
1. Use of consumer quantities of hazardous substances is allowed. Consumer quantities of hazardous substances are packaged and distributed in a form intended or suitable for sale through retail sale outlets for consumption by individuals for purposes of personal use; and
 2. Marine vessel fueling stations are allowed.
- B.** The planting or propagation of any plant listed on the *Nuisance Plant List*; and
- C.** Dumping of trash or yard debris.

33.475.440 Development Standards

Unless exempted by 33.475.405., the standards in this Section apply to development, exterior alterations, and land divisions in the River Environmental overlay zone. All of the applicable standards must be met. Proposals that do not meet all the standards within each relevant section require approval through River Review.

- A. Standards for rail rights of way.** The following standards apply to rail rights-of-way:
1. The disturbance area associated with the development of a rail right-of-way must occur within a corridor that is not more than 20 feet wide. No disturbance is allowed outside of the 20-foot-wide corridor;
 2. Disturbance associated with the rail corridor or development of the rail corridor must not occur within the riparian buffer area, riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of a wetland or the top of bank of any other stream or water body. See Map 475-6 for the riparian buffer area and Map 475-2 for the top of bank;

3. Vegetation removal is allowed as specified in Subsection K.; and
 4. Mitigation is required as specified in Subsection L.
- B. Standards for utility lines.** The following standards apply to new utility lines and upgrades to existing utility lines, including stormwater conveyance facilities, and private connections to utility lines:
1. The disturbance area for the installation of a utility line or upgrade to an existing utility line, including utility trenching, must be no more than 15 feet wide;
 2. The disturbance area must not occur within the riparian buffer area, riverward of the top of bank of the Willamette River, within the river channel, or within 30 feet of a wetland or the top of bank of any other stream or other water body. See Map 475-6 for the riparian buffer area and Map 475-2 for the top of bank;
 3. Vegetation removal is allowed as specified in Subsection K.;
 4. The temporary disturbance area must be seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; and
 5. Exemption. If a proposed utility line or upgrade to an existing utility line runs through an area that has already been approved as a permanent disturbance area, or allowed by standards of this section, it is exempt from Paragraphs B.1. and B.2.
- C. Standards for stormwater outfalls.** The following standards apply to the installation of stormwater outfalls:
1. The disturbance area associated with the installation or replacement of a stormwater outfall must not be more than 10 feet wide;
 2. When constructed open channels or vegetated swales are proposed, the slope between the stormwater source and the water body must not exceed 15 percent at any point;
 3. 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;
 4. Only one outfall pipe may be used on a site. The outfall pipe size may not exceed 4 inches in diameter;
 5. Vegetation removal is allowed as specified in Subsection K.; and
 6. Mitigation is required as specified in Subsection L.
- D. Standards for placement of piles.** The following standards apply to the placement of up to four new single piles or two new multiple-pile dolphins for each 100 feet of shoreline:
1. The placement of the piles or dolphins must be associated with a river-dependent or river-related use;

2. An equal number of piles or dolphins as are placed in the River Environmental overlay zone, plus one, must be removed from the River Environmental overlay zone. Removal includes cutting the piles or dolphins off at the river bottom but does not include cutting the pile or dolphin at any point other than the river bottom; and
 3. If the applicant does not own the property where the pile or dolphin removal will occur, the applicant must have an easement or deed restriction sufficient to allow the necessary removal.
- E. Standards for public trails.** The following standards apply to the construction of a new public trail and alterations to an existing public trail:
1. The trail is located on public property or within a public trail easement;
 2. The trail must be setback at least 10 feet, and disturbance associated with construction of the trail must be setback at least 5 feet, from the top of bank of the Willamette River or a stream (top of bank is shown on Map 475-2);
 3. The trail and disturbance associated with construction of the trail must be setback at least 30 feet from a wetland or the top of bank of a water body;
 4. Maximum trail width:
 - a. On sites with the major public trail designation, one trail may be up to 16 feet wide and the disturbance area for the one trail may be up to 24 feet wide;
 - b. For all other trails, the total width of the trail must be no more than 4 feet and the total width of disturbance area must be no more than 8 feet wide;
 5. Vegetation removal is allowed as specified in Subsection K; and
 6. Temporary disturbance area located within and riverward of the river setback must be replanted to meet the relevant subarea standards of Table 475-1, and temporary disturbance located outside and landward of the river setback is replanted to meet the subarea 3 standard of Table 475-1. Trees may not be planted within a Scenic overlay zone.
- F. Standards for public viewing areas.** The following standards apply to the construction of a public viewing area:
1. The viewing area must be associated with a viewpoint designated in the *Central City Scenic Resources Protection Plan (2020)* or *River Plan / South Reach Scenic Resources Protection Plan (2020)*;
 2. The total disturbance area must be no more than 800 square feet in area;
 3. The permanent disturbance area associated with the viewing area must not be more than 500 square feet in area;
 4. The total disturbance area must not be located below the top-of-bank of the Willamette River (top of bank is shown on Map 475-2), stream, or any other water body, and must not be located within 30 feet of a wetland;
 5. Vegetation removal is allowed as specified in Subsection K.; and

6. Temporary disturbance area located within and riverward of the river setback must be replanted to meet the relevant subarea standards of Table 475-1, and temporary disturbance located outside and landward of the river setback is replanted to meet the subarea 3 standard of Table 475-1. Trees may not be planted within a Scenic overlay zone.
- G. Standards for view corridors.** The following standards apply to pruning or removing vegetation in a Scenic overlay zone.
1. Tree removal and pruning is allowed as specified in Subsection K.; and
 2. Temporary disturbance areas must be replanted with three shrubs per 100 square feet and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre.
- H. Standards for resource enhancement.** The following standards apply to resource enhancement projects.
1. There must be no excavation, fill, or construction activity below ordinary high water mark of any river, stream, wetland or other water body;
 2. The riverbank may be re-graded if the slope after grading is shallower than the slope prior to grading and the slope is no greater than 20 percent (20 percent slope represents a rise to run ratio equal to 1:5);
 3. Rock armoring must not be used on the surface between the top of bank and the ordinary high water mark of any water body except as required surrounding outfalls (top of bank is shown on Map 475-2);
 4. No structures are proposed landward of the top of bank except trails that meet the regulations of 33.475.440.E, and structures associated with public viewing areas that meet the regulations of 33.475.440.F.;
 5. All nuisance plants listed on the *Portland Plant List* must be removed;
 6. Vegetation removal is allowed as specified in Subsection K.; and
 7. Temporary disturbance area located within and riverward of the river setback must be replanted to meet the relevant subarea standards of Table 475-1, and temporary disturbance located outside and landward of the river setback is replanted to meet the subarea 3 standard of Table 475-1. Trees may not be planted within a Scenic overlay zone.
- I. Standards for site investigative work.** The following standards apply to site investigative work. Site investigative work includes soil tests and test pits, land surveys, and groundwater and water quality monitoring stations.
1. No more than 100 square feet of disturbance area is allowed per test pit or monitoring station;
 2. Disturbance associated with site investigative work must be temporary;
 3. No trees are removed; and

4. Temporary disturbance area must be planted with three shrubs per 100 square feet and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre.
- J. Standards for development in a City of Portland park.** The following standards apply to development in a City of Portland park that is not subject to another set of development standards contained in this Section.
1. The total disturbance area must not be more than 2,200 square feet;
 2. Disturbance area must not be located below the top-of-bank of the Willamette River, streams, or other water body, or located within 30 feet of a wetland. See Map 475-2 for the top of bank of the Willamette River;
 3. Vegetation removal is allowed as specified in Subsection K.; and
 4. Mitigation is required as specified in Subsection L.
- K. Standards for removal or pruning of vegetation.** The following standards apply to the removal or pruning of vegetation:
1. All vegetation removal activities must be surrounded or protected to prevent erosion and sediment from leaving the site or negatively impacting resources on the site;
 2. The removal or pruning must be conducted with handheld equipment or equipment with a wheel surface-to-ground pressure of no more than 7.5 psi;
 3. Temporary disturbance area located within and riverward of the river setback must be replanted to meet the relevant subarea standards of Table 475-1, and temporary disturbance located outside and landward of the river setback is replanted to meet the subarea 3 standard of Table 475-1;
 4. Vegetation that is removed or pruned is limited to the following:
 - a. Vegetation listed on the *Nuisance Plant List*;
 - b. Dead, dying or dangerous trees or portions of trees when they pose an immediate danger, as determined by the City Forester or certified arborist. All sections of wood more than 12 inches in diameter must be placed in the River Environmental overlay zone of the ownership within which the wood was cut unless the City Forester authorizes the removal because the wood is diseased and will threaten the health of other trees;
 - c. Vegetation that exceeds the height restriction of a view corridor with special height restrictions designated in the *Central City Scenic Resources Protection Plan* or *River Plan / South Reach Scenic Resources Protection Plan*;
 - d. Trees not listed on the Nuisance Plant List that are less than 6 inches in diameter may be removed if the removal or pruning is in conjunction with development or an exterior alteration approved under the standards of this section as follows:
 - (1) Within a rail right-of-way or within 10 feet of the rail right-of-way;
 - (2) Within a utility line corridor;

- (3) Within the disturbance area for installation or replacement of stormwater outfalls;
 - (4) Within a public trail;
 - (5) Within a public viewing area associated with a viewpoint designated in the *Central City Scenic Resources Protection Plan* or *River Plan / South Reach Scenic Resources Protection Plan*;
 - (6) Within a Scenic overlay zone;
 - (7) Within a resource enhancement area;
 - (8) Within the disturbance area associated with development in a City of Portland park; or
 - (9) Within the disturbance area associated with a residential structure.
- e. Trees less than 3 inches in diameter planted within a resource enhancement area may be removed when the relevant subarea standards of Table 475-1 are met. For the purposes of this standard, approved resource enhancement area means the area meets the resource enhancement standards of Subsection H., or was approved through a land use review.
5. Except for dead, dying and dangerous trees, vegetation removal or pruning within the riparian buffer area is prohibited between April 15 and July 31.
6. Trees removed must be replaced as shown in Table 475-2 and must meet the following:
- a. Replacement vegetation must meet all of the following:
 - (1) Trees must be a minimum ½-inch caliper, bareroot or live stakes, 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;
 - (2) The planting must occur within the River Overlay zones. Trees must not be planted within a Scenic overlay zone. If the vegetation is not planted on the applicant's site, then the applicant must own the property or possess a legal instrument, such as an easement or deed restriction, that is approved by the City as sufficient to ensure the right to carry out, monitor, and maintain the mitigation. If tree removal on the project site is located in either the 100-year floodplain or 1996 Flood Inundation Area, tree planting must also be within the 100-year floodplain or 1996 Flood Inundation Area; and
 - (3) The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met. When at least five trees are planted for replacement, written proof that all specifications of 33.248.090 have been met must be provided annually for three years after planting is complete. The requirement for three years of written proof does not apply if all of the trees being removed are dead, dying, or dangerous trees, as determined by

the City Forester or an arborist, or are nuisance trees. In this case, written proof that all specifications of 33.248.090 have been met must be provided one year after the planting is complete. The property owner must provide this documentation to the Bureau of Development Services; and

- b. Vegetation planted to meet the landscaping requirements of 33.475.220 may be counted towards meeting the tree replacement standard.

Table 475 – 2		
Tree Replacement in River Environmental Overlay Zone		
Size of tree to be removed (inches in diameter)	Option A (no. of native trees to be planted)	Option B (combination of native trees and shrubs)
At least 1.5 and up to 6	1	Not applicable
More than 6 and up to 20	3	Not applicable
More than 20 and up to 25	5	3 trees and 6 shrubs
More than 25 and up to 30	7	5 trees and 9 shrubs
More than 30	10	7 trees and 12 shrubs

- L. **Standards for mitigation.** The following standards apply to mitigation required by Subsections A., C., J., O., and P.
 - 1. Mitigation ratio. Mitigation must be provided as follows:
 - a. On-site mitigation and mitigation purchased from a City-approved mitigation bank must occur at a minimum 1.5:1 ratio of mitigation area to project disturbance area;
 - b. All other mitigation must occur at a minimum 3:1 ratio of mitigation area to project disturbance area.
 - 2. Location of mitigation. The mitigation area must be located as follows:
 - a. If mitigation will be provided as credits from a mitigation bank, the credits must be purchased from a City-approved mitigation bank located along the Lower Willamette River that is as close as possible to the disturbance area;
 - b. All other mitigation areas must be located in the River Environmental overlay zone and if the disturbance area is located within the 100-year floodplain or the 1996 Flood Inundation Area, the mitigation area must also be located within the 100-year flood plain or 1996 Flood Inundation Area.
 - 3. If the mitigation area is not on the site where the disturbance occurs and is not credits purchased from a City-approved mitigation bank, then the applicant must own the property or possess a legal instrument, such as an easement or deed restriction that is approved by the City as sufficient to ensure the right to carry out, monitor, and maintain the mitigation;
 - 4. Nuisance plants identified on the *Portland Plant List* must be removed within the area to be replanted. Trees removed to meet this Paragraph must be replaced as specified in Subsection K.;

5. Plantings required for tree removal, as specified in Subsection K., can be counted towards mitigation if the planting is located within the River Environmental overlay zone or in an area that is contiguous to the River Environmental overlay zone;
6. Required planting density standards are specified in Table 475-3. Trees may be clustered. Trees must not be planted within a view corridor. Plants must be selected from the *Portland Plant List*;

Table 475-3 Planting Density			
	Small Trees[1]	Medium Trees[1]	Large Trees[1]
Planting Density	<p>One tree and one of the following two options for every 100 square feet:</p> <p>Option 1: Three shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Three shrub and four other groundcover plants.</p>	<p>One tree and one of the following two options for every 200 square feet:</p> <p>Option 1: Six shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Six shrub and eight other groundcover plants.</p>	<p>One tree and one of the following two options for every 300 square feet:</p> <p>Option 1: Nine shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Nine shrub and 12 other groundcover plants.</p>

[1] Tree size is based on Title 11.60.020.C Canopy Size

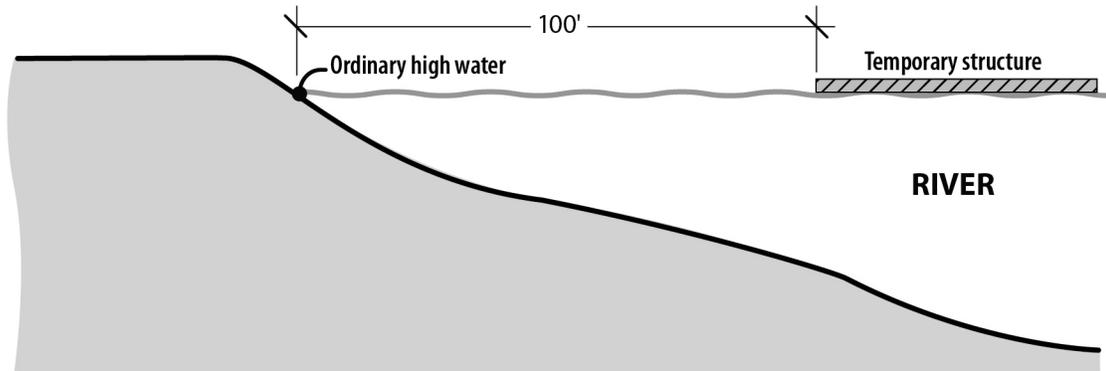
7. For planting areas over 600 square feet, at least two different tree species and sizes, three different shrub species, and four different groundcover species must be used; and
8. Trees must be a minimum ½-inch caliper, bareroot or live stake, unless they are oak or madrone, which may be one gallon 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
9. The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met. When the mitigation area is 1,000 square feet or greater, written proof that all specifications of 33.248.090 have been met must be provided annually for three years after planting is complete. The requirement for three years of written proof does not apply when the mitigation area is less than 1,000 square feet. In this case, written proof that all specifications of 33.248.090 have been met must be provided one year after the planting is complete. The property owner must provide this documentation to the Bureau of Development Services.

M. Standards for application of soil amendments. The following standards apply to the application of soil amendments:

1. The depth of the soil amendment must be no more than 12 inches;
2. The soil must not be applied below the ordinary high water mark of the Willamette River, streams, or other water body, or within 30 feet of a wetland;
3. The composition of the growing medium must meet one of the following:

- a. For all planting areas located outside of the flood hazard area, the growing medium must be a blend of loamy soil, sand, and compost that is 30 to 40 percent plant material compost (by volume); or
 - b. For all planting areas located within the flood hazard area, the growing medium must be a blend of loamy soil, sand, small gravels and compost. A landscape architect or civil engineer must certify that the growing medium is adequate to support the establishment and growth of vegetation, and is heavier than water.
4. Placement of soil is not allowed when the ground is frozen or saturated; and
 5. Temporary erosion control measures are required until permanent stabilization measures are functional. Temporary erosion control measures must be biodegradable or removed after permanent stabilization measures are functional or within 3 years, whichever is sooner.
- N. Standards for placement of temporary structures for a seasonal public swimming area.**
The following standards apply to temporary structures for a seasonal public swimming area:
1. One land-based structure exclusively for storing life-safety equipment is allowed per site and must not exceed 300 square feet of floor area;
 2. Temporary floating structures are allowed and must meet the following standards:
 - a. More than one floating structure is allowed per site, but no more than 8 floating structures are allowed per reach of the Willamette River;
 - b. The floating structure must be free-floating or attached to an existing dock, pier or piling. Free floating means that the structure is anchored to the river bottom and is not accessible from the riverbank via anything other than the water;
 - c. The structure must not have walls or a roof; and
 - d. The structure must be at least 100 feet away from the riverbank. The 100 feet is measured horizontally from the ordinary high water mark. See Figure 475-6;
 3. All work necessary to install and remove temporary structures is allowed only between July 1 and October 31. All temporary structures must be removed by October 31; and
 4. The swimming area must be open to the public.

**Figure 475-6
Floating Structures**



O. Standards for all residential structure types. The following standards apply to all residential structure types.

1. The maximum disturbance area allowed within the River Environmental overlay zone on the site is determined by subtracting all portions of the site outside the River Environmental overlay zone boundary from the number listed in Table 475-4.

Table 475-4 Maximum Disturbance Area Allowed			
	RF, R20, and R10	R5	All Other Zones
Maximum Disturbance Area	5,000 sq. ft. [1]	2,500 sq. ft. [1]	50% of the base zone building coverage

[1] Subtract the amount of area on the site outside the River Environmental overlay zone from the number given in the table.

2. The disturbance area must be located outside of the riparian buffer area and must be set back at least:
 - a. Five feet landward of the river setback; and
 - b. Thirty feet from the edge of any identified wetland or the top of bank of any identified-water body located landward of the river setback.
3. Vegetation removal is allowed as specified in Subsection K.
4. The minimum front and street building setback and garage entrance setback of the base zone may be reduced to any distance between the base zone minimum and zero. Where a side lot line is also a street lot line the side building and garage entrance setback may be reduced to any distance between the base zone minimum and zero. Parking spaces may be allowed within the first 10 feet from a front lot line, and within a minimum side street setback.

5. Except as stated in Paragraph O.6, mitigation is required as specified in Subsection L.
 6. For alterations to existing development where the existing disturbance area now exceeds the limitations of Table 475-4, alterations are allowed within the existing disturbance area if the following are met:
 - a. The existing disturbance area may not be expanded; and
 - b. Increases in building coverage and exterior improvement area are allowed if the mitigation requirements specified in Paragraphs L.2. through L.8. are met for an area equivalent in size to at least 50 percent of the increase in building coverage and exterior improvement area. If the proposed development is less than 100 square feet, the minimum mitigation area will be 50 square feet.
- P. Standards for existing residential docks.** The following standards apply to replacing or altering or repairing floating boat dock structures that existed on March 1, 2021, that are located in a residential zone:
1. If the floating boat dock structure has a total square footage greater than 200 square feet, the total square footage of the floating portions must be reduced by at least 25 percent; and
 2. The non-floating portions of the floating boat dock structure must remain in the same location and must not increase in size.
- Q. Standards for land divisions and Planned Developments.** The following standards apply to land divisions and Planned Developments.
1. All development is landward the river setback;
 2. All development is outside the 100-year floodplain and 1996 Flood Inundation Area;
 3. Where there is a house on the site that is in the 100-year floodplain or 1996 Flood Inundation Area, it may remain if a new lot is created that meets the following:
 - a. The existing house will remain; and
 - b. A new lot is created to contain the existing house as well as a future building site at least five feet from 100-year floodplain and 1996 Flood Inundation Area. For the purpose of this subsection, “building site” means an area of any shape in which a square 40 feet by 40 feet will fit;
 4. Areas of the 100-year floodplain and 1996 Flood Inundation Area that are outside of lots being created under the provisions of Paragraph P.3. are located entirely within environmental resource tracts. The tracts must be owned in common by all of the owners of the land division site, by a Homeowner’s Association, by a public agency, or by a non-profit organization;
 5. The total amount of disturbance area allowed within the River Environmental overlay zone is either the amount listed in Table 475-5 or 1 acre, whichever is less, minus the amount of area outside the River Environmental overlay zone;

Table 475-5 Maximum Disturbance Area for a Land Division and PD Allowed Within the River Environmental Overlay Zone [1]						
	OS and RF Zone	R20 Zone	R10 Zone	R7 Zone	R5 Zone	All Other Zones
Maximum Disturbance Area	5% of site area	12% of site area	15% of site area	17% of site area	22% of site area	50% of the base zone building coverage

Notes:

[1] Disturbance area includes utility construction.

6. Areas of the River Environmental overlay zone outside designated disturbance areas must be placed entirely within environmental resource tracts. The tracts must be owned in common by all the owners of the land division site, by a Homeowner’s Association, by a public agency, or by a non-profit organization;
7. Streets, alleys, walkways, and stormwater facilities are not created within 50 feet of an identified wetland or water body;
8. New right-of-way and roadway widths do not exceed the maximums listed in Table 475-6;
9. Utility construction must meet the applicable standards of Subsection B. Private utility lines on a lot where the entire area of the lot is approved to be disturbed and where the private utility line provides connecting service directly to the lot from a public system are exempt from this standard;
10. Installation of stormwater outfalls is allowed as specified in Subsection C;
11. Vegetation removal is allowed as specified in Subsection K.; and
12. Mitigation is required as specified in Subsection L.

Table 475-6 Maximum Right-of-way and Roadway Widths			
Base Zone	Type of Street	Right-of Way Width	Roadway Width
OS and RF – R7	Through	35 feet	20 feet
R5	Through	40 feet	20 feet
R2.5 – IR and C, E, I, and CI	Through	40 feet	28 feet
OS and RF – R5	Dead-end	35 feet	20 feet
R2.5 - IR and C, E, I, and CI	Dead-end	40 feet	28 feet

R. Standards for Property Line Adjustments. The following standards apply to Property Line Adjustments (PLAs) in the River Environmental overlay zone. For purposes of this section, the site of a Property Line Adjustment is the two properties affected by the relocation of the common property line. All of the standards must be met.

1. A Property Line Adjustment may not result in any property being entirely in the River Environmental overlay zone, unless that property is entirely in the River Environmental overlay zone before the PLA, or the property will be dedicated or limited by deed restriction to the uses allowed in the OS zone.

2. The amount of area on each property that is outside of the resource area of the environmental overlay zone may not be reduced below the square footage in Table 475-7. A property that contains less than the area listed in Table 475-7 outside of the resource area of the environmental overlay zone may not move further out of conformance with Table 475-7.

Table 475-7				
Minimum Area Required Outside of the River Environmental Overlay Zone				
	OS through R10 Zones	R7 Zone	R5 Zone	All Other Zones
Maximum Area Required	5% of site area	17% of site area	22% of site area	50% of the base zone building coverage

33.475.450 Corrections to Violations of the River Environmental Overlay Zone Regulations

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

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 a river environmental code violation.

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 ground disturbance occurred riverward of the top of bank of the Willamette River in the riparian buffer area, or within 30 feet of a wetland or the top of bank of a stream or other water body. See Map 475-2 for top of bank;
 - (3) The correction will remove all illegal development; and
 - (4) The correction will replant illegal clearing.
 - b. If any of the following occurred, the applicant may not use Option One, but may choose either Option Two or Option Three:
 - (1) More than 12 diameter inches of trees were removed;
 - (2) A Madrone, Garry Oak, or Pacific Yew larger than 3 inches was removed; or

- must be a minimum of two-gallon size. All other species must be a minimum of four-inch pots;
- (6) The requirements of Section 33.248.090, Mitigation and Restoration Planting, must be met; and
 - (7) 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 ½ 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 33.475.440 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 to meet the standards of Table 475-3;
 - (2) For planting areas over 600 square feet, at least two different tree species and sizes, three different shrub species, and four different groundcover species are used. 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 to meet the standards of Table 475-3;
 - (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 ½ inch in diameter, bareroot or live stake, 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. Trees must not be planted within a Scenic overlay zone. Trees may be clustered. 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. When the planting area exceeds 1,000 square feet, written proof that all specifications of 33.248.090 have been met must be provided annually for three years after planting is complete. The requirement for three years of written proof does not apply when the planting area is less than 1,000 square feet. In this case, written proof that

all specifications of 33.248.090 have been met must be provided one year after the planting is complete. The property owner must provide this documentation to the Bureau of Development Services; and

- 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 ½-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.

Clean Up of Contaminated Sites

33.475.500 Removal or Remediation of Hazardous Substances

- A. General.** The following regulations are substantive requirements that apply to actions taken to remove or remediate hazardous substances. All of the regulations must be met unless one or more are demonstrated to be impracticable pursuant to subsection G, below.
- B. Where these regulations apply.** The regulations of this section apply to the portion of the site located within the boundaries of the removal or remediation action.
- C. Review procedure.**
 1. Except as described in Paragraph C.2., compliance with these regulations is processed through a Type II procedure.
 2. If the action to remove or remediate hazardous substances is subject to this Code but exempt from procedural requirements, the action must comply with the substantive requirements of these regulations to the extent required under state or federal law and the person performing the action must notify the City that the action is exempt. A person conducting a cleanup otherwise exempted from the procedural requirements may choose to obtain a permit.

- D. Relationship to other regulations in this chapter.** Actions to remove or remediate hazardous substances that are approved or selected under Oregon or federal cleanup law are exempt from the procedural requirements of Chapter 33.475. Any part of an action that is not in itself a remedial or removal action must meet all other applicable regulations and procedural requirements of this chapter.
- E. Regulations that apply to actions to remove or remediate hazardous substances.** The following regulations apply to proposals for the removal or remediation of hazardous substances:
1. The removal or remedial actions and the final remedy must not preclude the use of the site consistent with the uses allowed by the base zone or an approved conditional use. If the site is within the River Industrial overlay zone or riverward of the river setback, the final remedy must allow the use of the site for river-dependent or river-related activities unless the site is found to be unsuitable for river-dependent or river-related uses. Generally, this means that the final remedy must allow development of major public trails, dredging necessary to establish or maintain navigation to and from riverfront sites, the placement of piles or dolphins, or the development of a marine facility, dock, or wharf or other river-dependent or river-related structure;
 2. Buildings, structures and equipment required as part of removal or remediation actions must be located and designed taking into account the purpose of the river setback standard which is to keep structures at least 50 feet away from the top of bank of the river, reserve space for public access to the river and development of major public trails, and allow for natural resource enhancement (top of bank is shown on Map 475-2); and
 3. Water quality treatment facilities must be located outside of the River Environmental overlay zone.
- F. Regulations that apply to actions to remove or remediate hazardous substances that occur in specific areas.** The following regulations apply to actions within the River Environmental overlay zone to remove or remediate hazardous substances based on specific locations:
1. The following regulations apply to areas landward of the top of bank (top of bank is shown on Map 475-2):
 - a. Disturbance of the ground and removal of native vegetation must be avoided outside of the actual soil removal areas. If avoiding disturbance or native vegetation removal is not practicable, disturbance and removal must be minimized.
 - b. Where ground disturbance or removal of native vegetation cannot be avoided, the area must be replanted. The replanting standards are as follows:
 - (1) Nuisance and prohibited plants identified on the *Portland Plant List* must be removed within the area to be replanted and within 10 feet of any plantings;
 - (2) Planting density. The replanting area must meet one of the following plant and planting density standards specified in Table 475-8. Trees may be

clustered. Trees must not be planted within a view corridor designated in the *Central City Scenic Resources Protection Plan* or *River Plan / South Reach Scenic Resources Protection Plan*.

Table 475-8 Planting Density			
	Small Trees[1]	Medium Trees[1]	Large Trees[1]
Planting Density	<p>One tree and one of the following two options for every 100 square feet:</p> <p>Option 1: Three shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Three shrub and four other groundcover plants.</p>	<p>One tree and one of the following two options for every 200 square feet:</p> <p>Option 1: Six shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Six shrub and eight other groundcover plants.</p>	<p>One tree and one of the following two options for every 300 square feet:</p> <p>Option 1: Nine shrubs and seeded with a grass and forb seed mix at a ratio of 30 pounds per acre; or</p> <p>Option 2: Nine shrub and 12 other groundcover plants.</p>

[1] Tree size is based on Title 11.60.020.C Canopy Size

- (3) Plant diversity. For planting areas over 600 square feet, at least two different tree species and sizes, three different shrub species, and four different groundcover species are used;
 - (4) Plant size. Trees must be a minimum ½-inch caliper or bareroot unless they are oak or madrone, which may be one gallon size. No more than ten percent of the trees may be oak or madrone. Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent; and
 - (5) The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.
- c. Tree replacement. Trees that are 1.5 inches or greater in diameter that are removed must be replaced based on Table 475-9:

Table 475-9 Tree Replacement in Hazardous Substance Cleanup Sites		
Size of tree to be removed (inches in diameter)	Option A (no. of native trees to be planted)	Option B (combination of native trees and shrubs)
At least 1.5 and up to 6	2	Not applicable
More than 6 and up to 20	3	Not applicable
More than 20 and up to 25	5	3 trees and 6 shrubs
More than 25 and up to 30	7	5 trees and 9 shrubs
More than 30	10	7 trees and 12 shrubs

- (1) Size. The replacement trees must be a minimum ½-inch diameter or bareroot unless they are oak or madrone, which may be one gallon size.

Shrubs must be a minimum of one gallon size or bareroot. All other species must be a minimum of four-inch pots or equivalent.

- (2) Type. The replacement trees must be native trees selected from the *Portland Plant List*;
 - (3) Location. All replacement trees must be planted within the River Environmental overlay zone, within 50 feet of the River Environmental overlay zone, or within 50 feet of the top of bank of the Willamette River in the River Environmental overlay zone. See Map 475-2. If the project site is located in the 100-year floodplain or 1996 Flood Inundation Area, the plantings must also be within the 100-year floodplain or 1996 Flood Inundation Area. The person conducting the cleanup must own the property where the trees are planted or possess a legal instrument, such as an easement or deed restriction, that is approved by the City as sufficient to ensure the right to carry out, monitor, and maintain the plantings; and
 - (4) Replacement trees can be counted toward meeting the requirements of subsubparagraph F.1.b(2).
- d. All vehicle areas and construction staging areas installed for purposes of conducting the removal and remediation actions must be removed from the River Environmental overlay zone when they are no longer necessary for remedy construction. All such areas must be removed by the time the project is complete and the areas must be replanted according to the standards of subparagraph F.1.b, above.
2. The following regulations apply to the area between the top of bank and the ordinary high water mark:
- a. When there is an alteration to the area between top of bank and the ordinary high water mark that is greater than 500 square feet or includes more than 50 cubic yards of excavation or fill, changes the ground contours, results in the removal of buildings, requires engineering of the river bank or includes in-water work, the following should be met (top of bank is shown on Map 475-2):
 - (1) The area between the top of bank and the ordinary high water mark where the alteration occurs must be designed using biotechnical techniques including soil bioengineering (top of bank is shown on Map 475-2). Figures 475-7 and 475-8 show examples of biotechnical techniques. In addition to using biotechnical techniques, the following requirements apply:
 - Rock armoring or other hard surface armoring methods must not be used between the top of bank and the Ordinary High Water Mark except as needed surrounding outfalls. This is not intended to preclude using rock or other hard surface stabilization methods below the surface if necessary to contain hazardous substances or to preclude the use of rocks or gravel as part of the biotechnical technique;
 - The bank must be sloped or terraced in a way that allows the establishment and maintenance of vegetation as the primary soil stabilization method;

- If the site is currently used for public recreation, including access to a beach or the river, the bank must be sloped or terraced in a way that allows for at least one public access way to the beach or river;
 - Large wood, including root wads, tree boles and logs, must be used to reduce localized erosion, improve bank stabilization, and improve ecological values and, if the site is currently used for public recreation, support continued use of beaches and the river; and
 - At least eighty percent of the area between the top of bank and the ordinary high water mark that is being altered as a result of the remedy must be planted with shrubs. At least one tree must be planted for every 400 square feet of altered area. All of the area that is not planted with shrubs or trees must be fully covered with ground cover plants. All plants must be selected from the *Portland Plant List* and should be appropriate for the conditions on the site. The requirements of Section 33.248.090, Mitigation and Restoration Planting must be met.
- (2) If biotechnical techniques are not practicable, as described in 33.475.500.G, and rock armoring is used on the surface between the top of bank and the Ordinary High Water Mark, then the slope of the bank must be shallow enough to allow a combination of rock and vegetation. See Map 475-2. At a minimum, live native willow or dogwood stakes should be planted in adequate soil, 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 of less than 500 square feet or less than 50 cubic yards of excavation or fill to the area between the top of bank and the ordinary high water mark, the regulations of paragraph G.1, above apply. See Map 475-2.
3. In the area that is riverward of the Ordinary High Water Mark, the following apply:
- a. Avoid in-water permanent structures that will impact the navigation channel or will preclude river-dependent or river-related development from accessing and utilizing the river for public recreation, transportation, tourism, or the transport, transfer and conveyance of goods and materials to and from the upland site;
 - b. Integrate large wood, or other natural wave deflection structures or techniques that mimic the function of large wood, into the near-shore environment. Rock armoring, chemically treated wood, articulated block, and industrial debris is discouraged;
 - c. If the area is a beach or is a shallow water depositional area, then the final design should include all of the following:
 - (1) At least six inches depth of substrate that is ½-inch rounded gravel or smaller in size should be placed over capping material;
 - (2) The submerged slope should be no steeper than 1:7 (rise to run ratio); and
 - (3) Public access from major public trails or abutting upland sites to the river should not be precluded.

- d. If the area is not a beach or is not a shallow water depositional area, then the final substrate should be rounded rock no larger than 6 inches ($D_{100}=6''$) with an average gradation size of 3 inches ($D_{50}=3''$). Angular rock is discouraged.

G. Demonstration of Impracticability. A person conducting a cleanup may be exempted from compliance with any requirement in this section if the person demonstrates that compliance with the requirement is not capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project remedial purposes. The person must still comply with that requirement to the extent practicable and remains subject to all other applicable requirements. To demonstrate impracticability the applicant must submit an engineering analysis, a cost schedule and any other information, such as desired future use of the site, that supports a demonstration that a requirement cannot be fully met.

Figure 475-7
Example 1: Upland and In-Water Contamination Cleanup

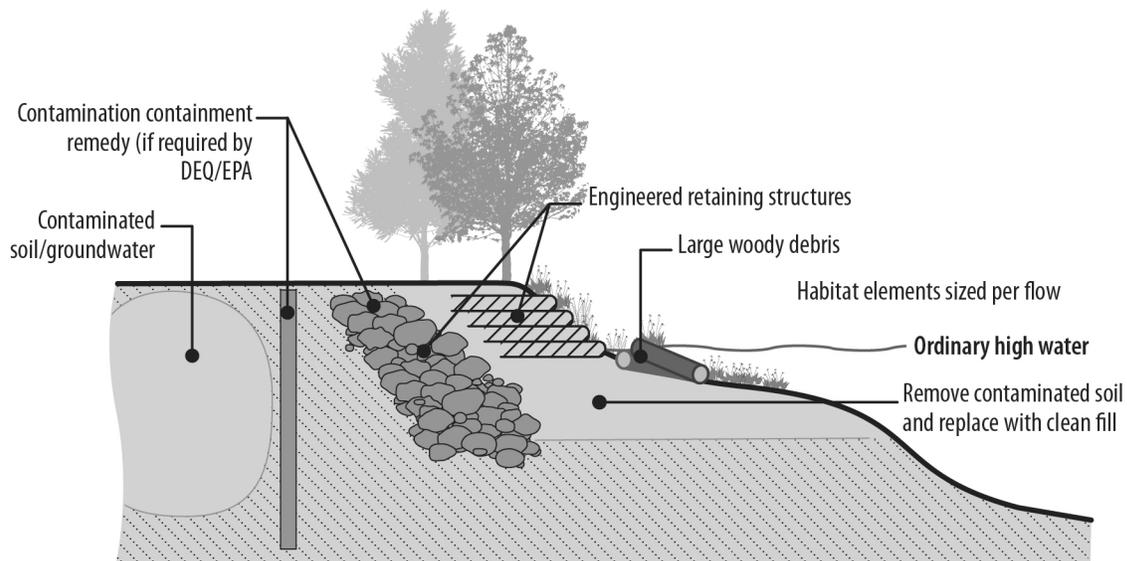
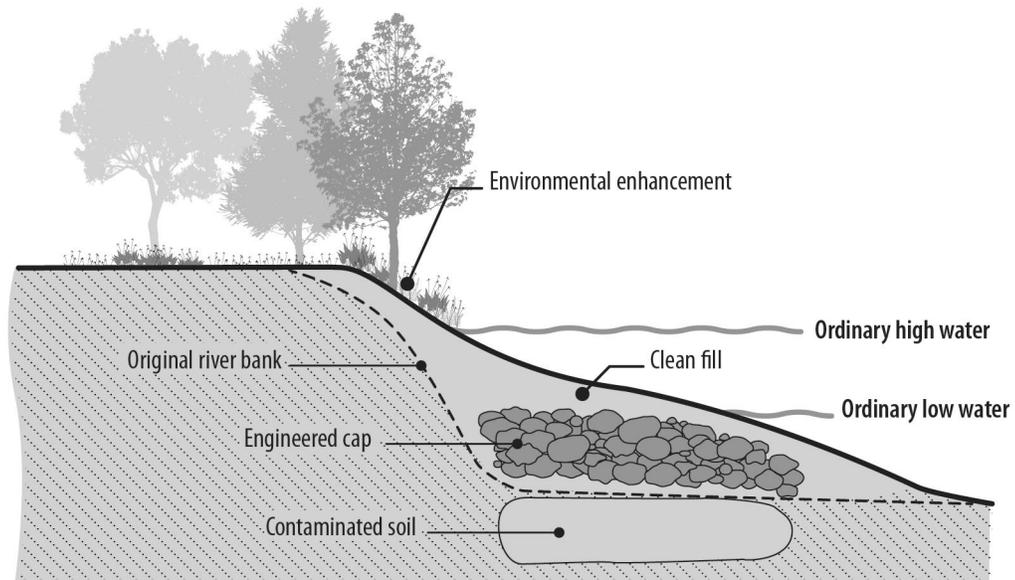


Figure 475-8
Example 2: In-Water Contamination Cleanup



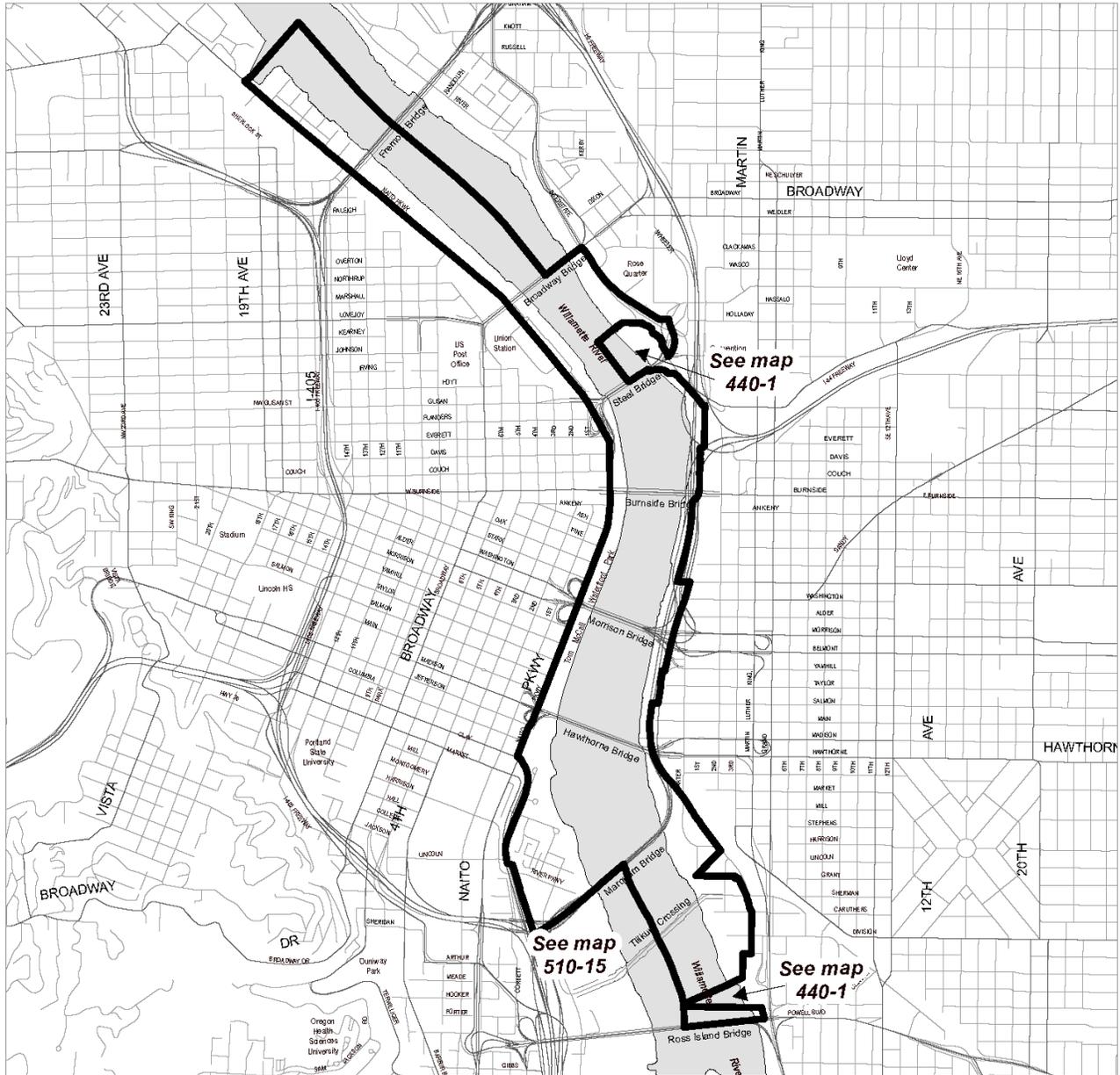
(Added by: Ord. No. 189000, effective 7/9/18. Amended by: Ord. No. 190023, effective 8/10/20; Ord. No. 190241, effective 3/1/21; Ord. No. 190851, effective 6/30/22; Ord. No. 190834, effective 10/1/22.)

Central Reach River Overlay Boundary

Map 475-1

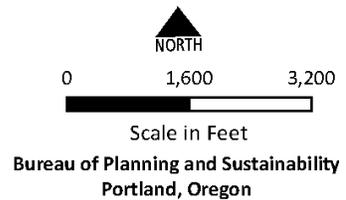
Map 1 of 2

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- River Overlay Boundary

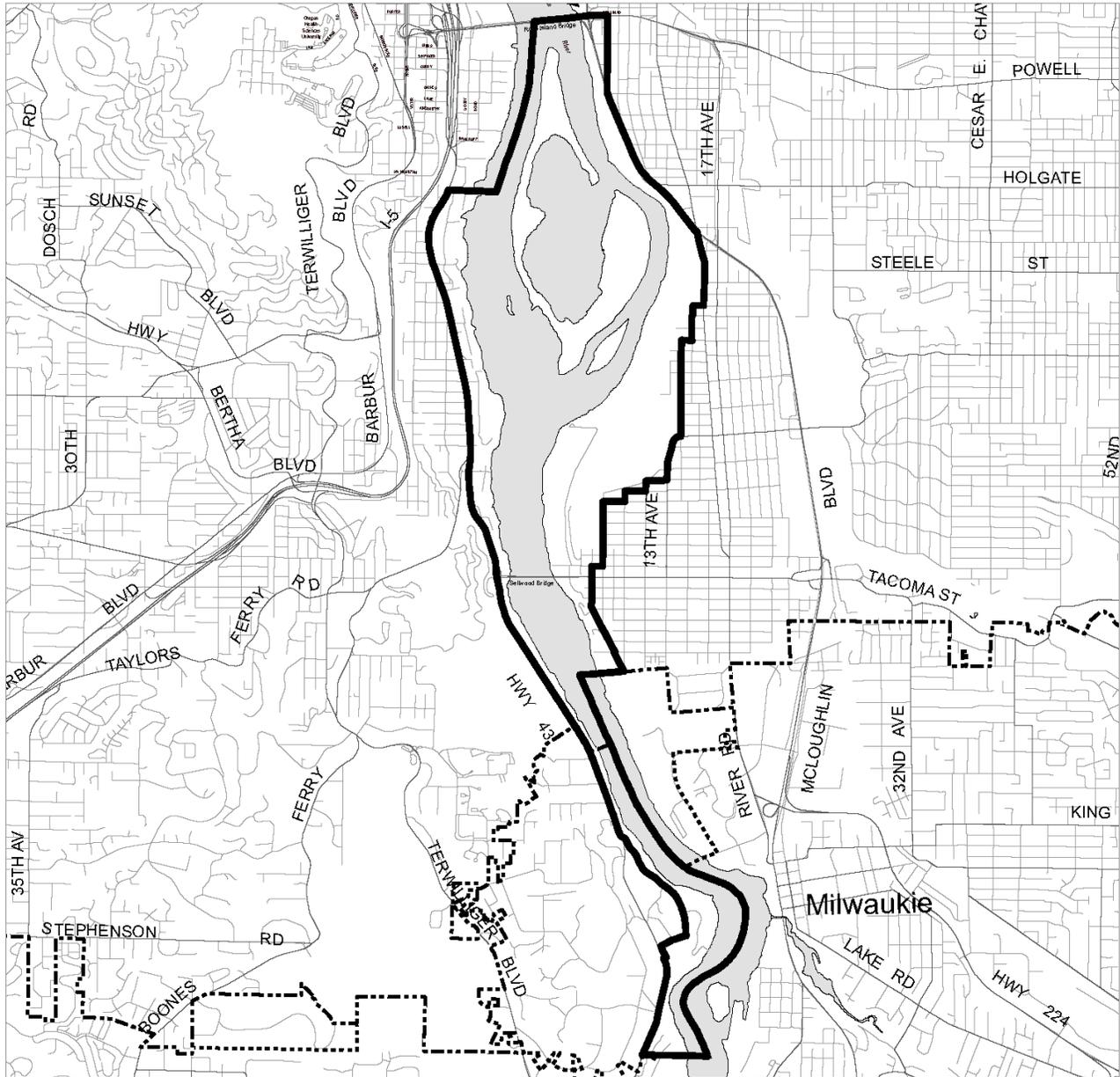


South Reach River Overlay Boundary

Map 475-1

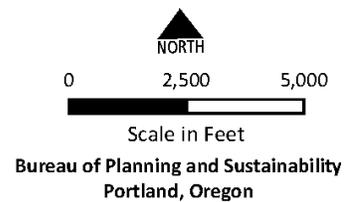
Map 2 of 2

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary

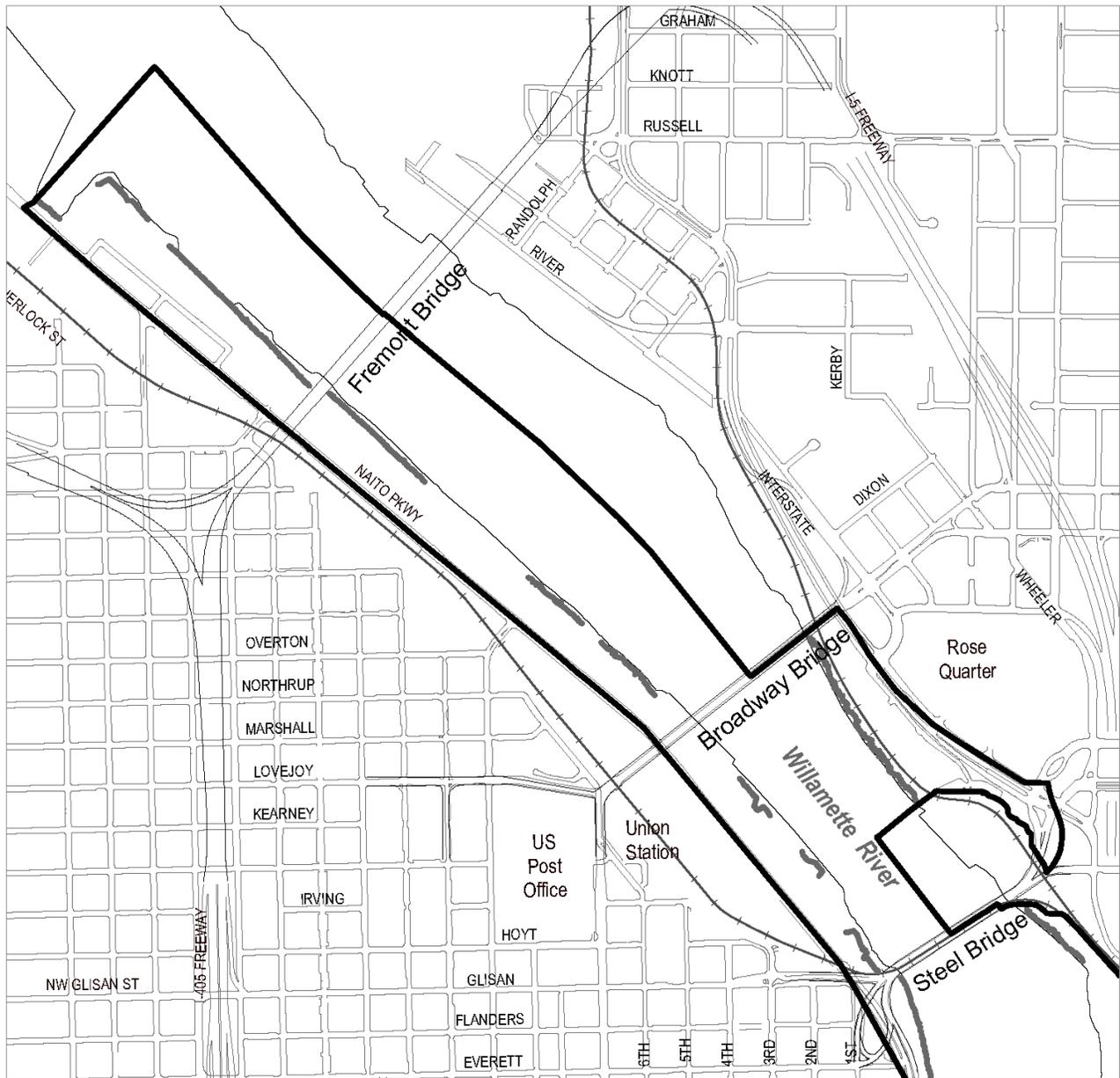


Central Reach Top of Bank

Map 475-2

Map 1 of 6

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary
- Top of Bank (where mapped)



Central Reach Top of Bank

Map 475-2

Map 2 of 6

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary
- Top of Bank (where mapped)

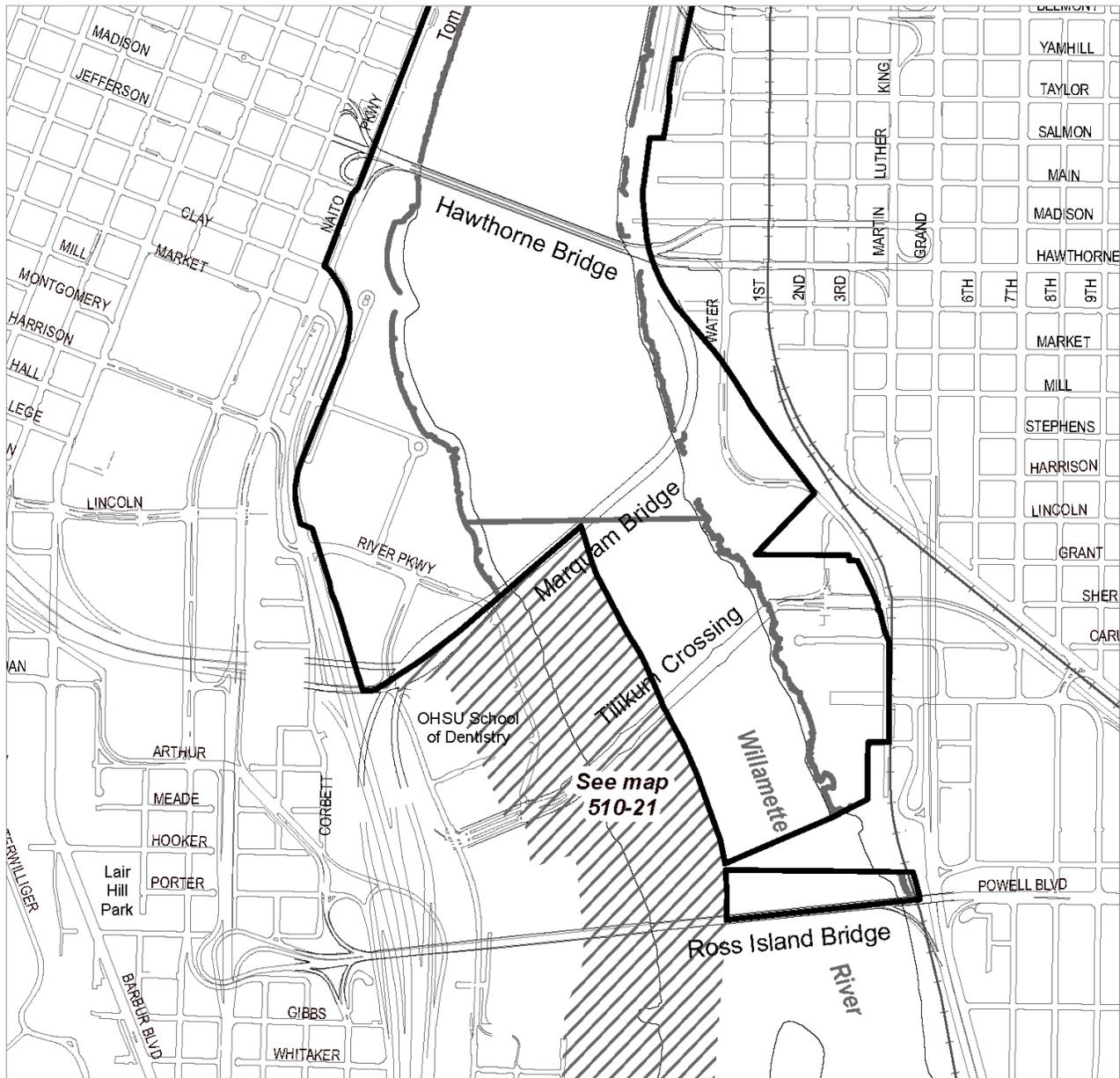


Central Reach Top of Bank

Map 475-2

Map 3 of 6

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary
- Top of Bank (where mapped)

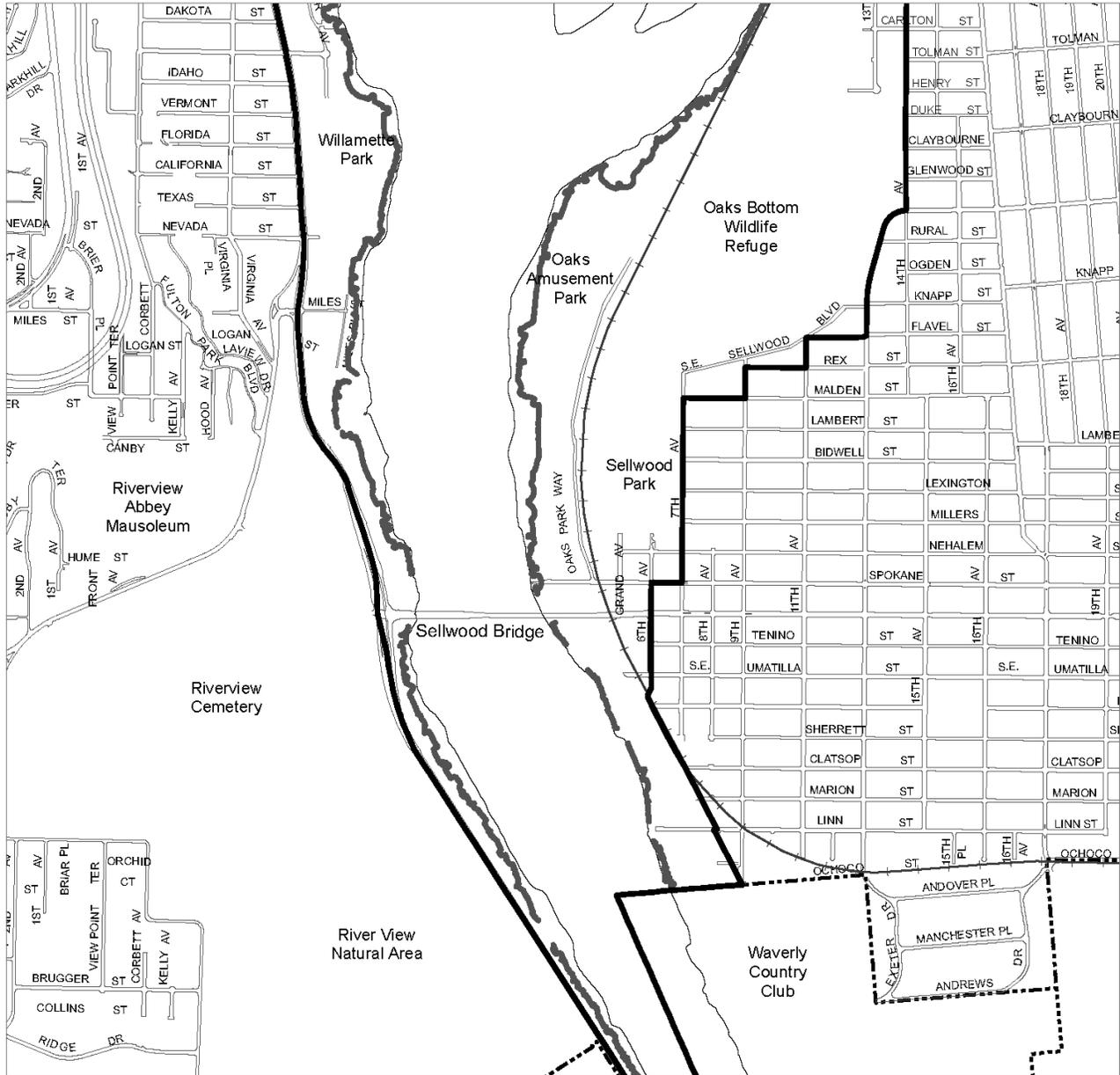


South Reach Top of Bank

Map 475-2

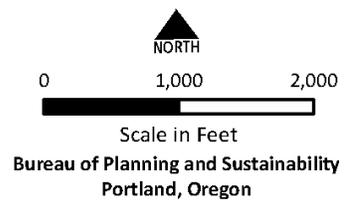
Map 5 of 6

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary
- Top of Bank (where mapped)

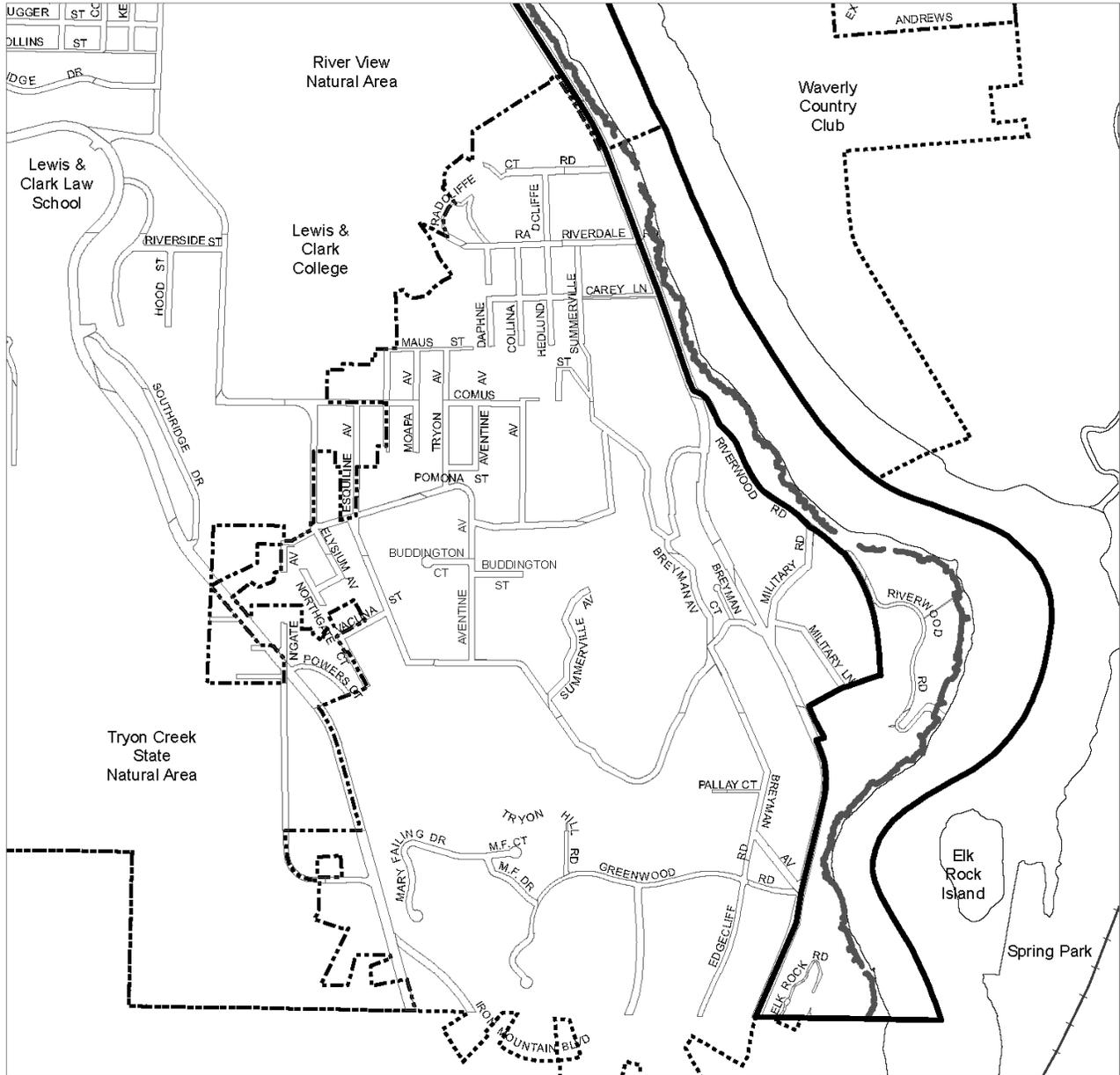


South Reach Top of Bank

Map 475-2

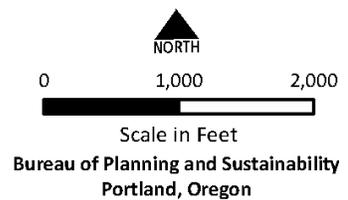
Map 6 of 6

Map Revised March 1, 2021



Legend

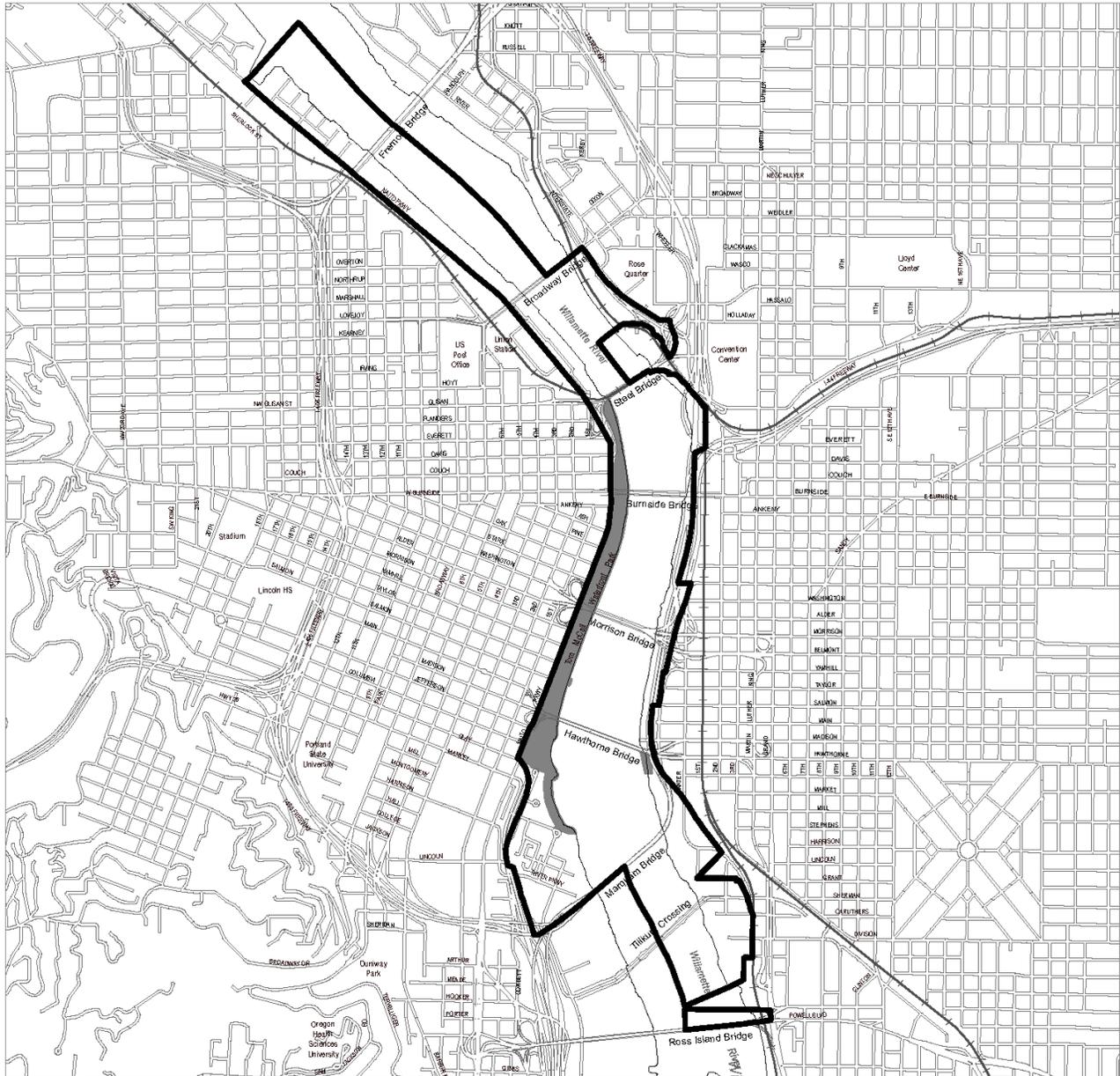
- City Boundary
- Urban Service Boundary
- ▭ River Overlay Boundary
- Top of Bank (where mapped)



Areas Exempt from Landscaping Requirements

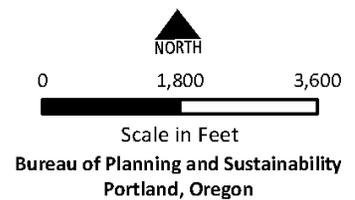
Map 475-3

Map Revised March 1, 2021



Legend

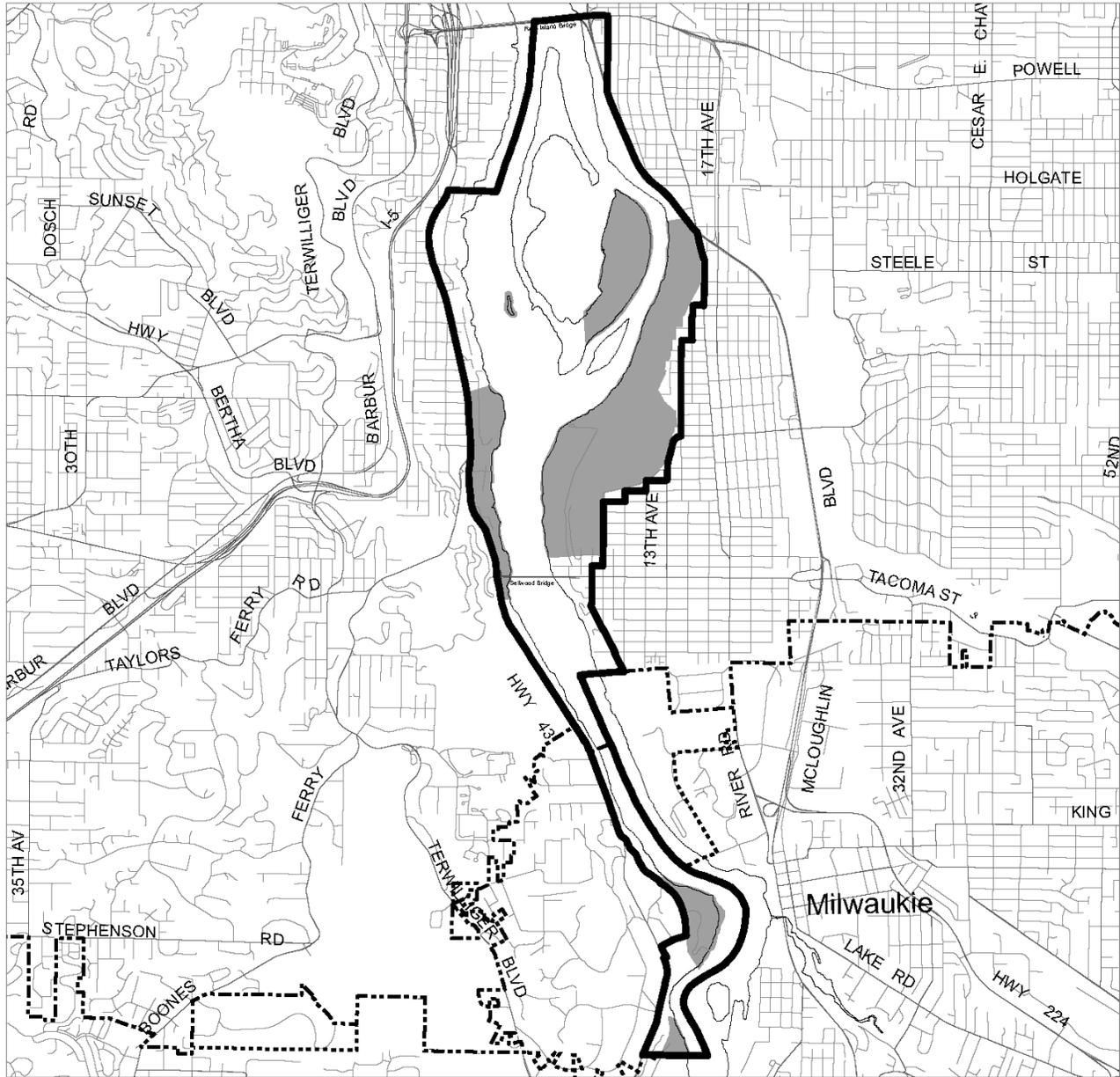
-  River Overlay Boundary
-  Exempt Areas



South Reach Archaeological Sensitivity Areas

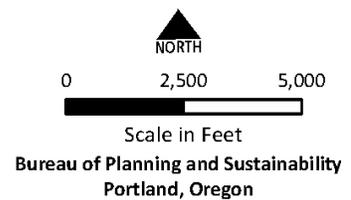
Map 475-4

Map Revised March 1, 2021



Legend

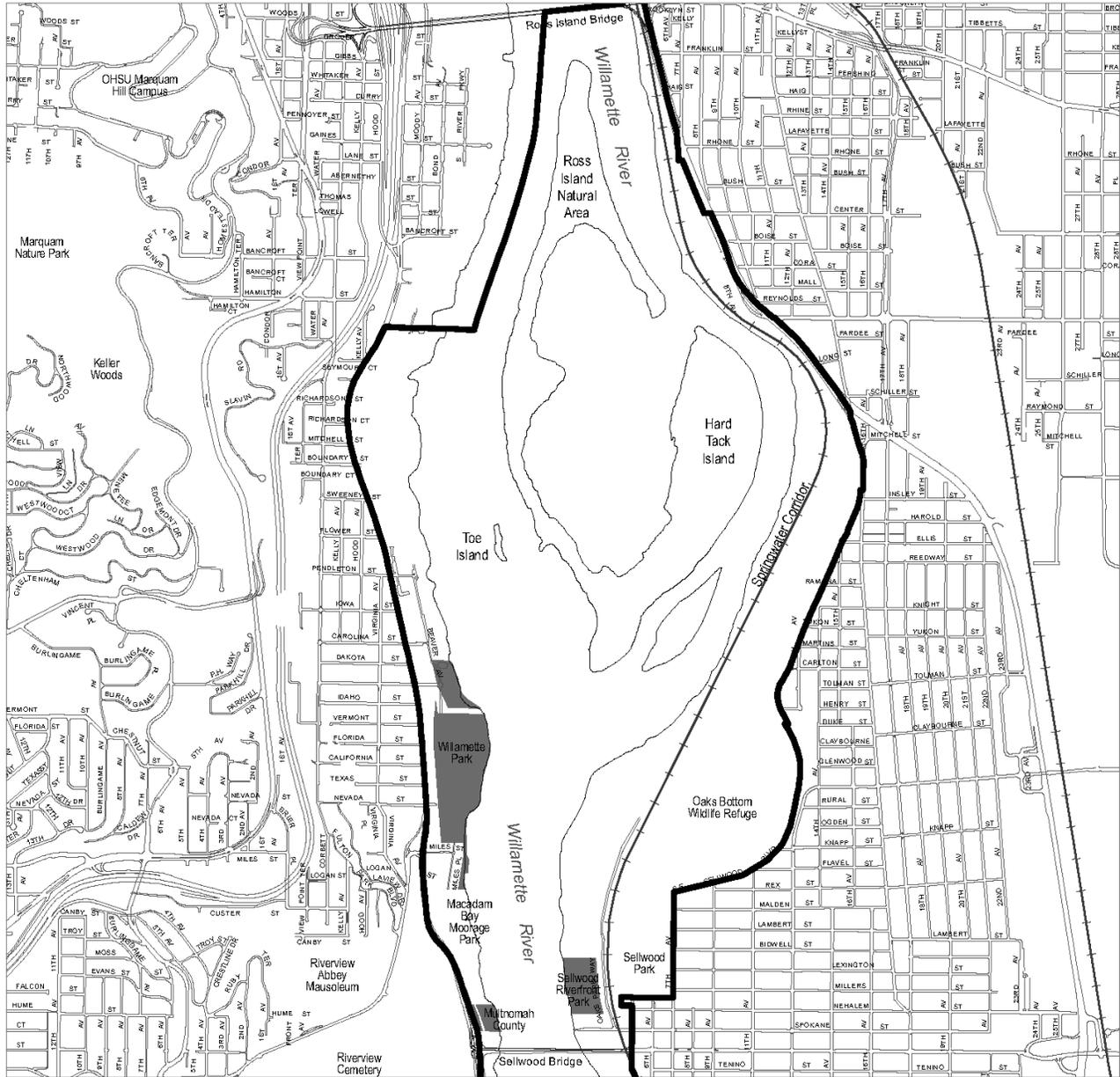
- Urban Service Boundary
- - - - - City Boundary
- ▭ River Overlay Boundary
- High Sensitivity areas



South Reach Retail Sales and Services Allowed in OS

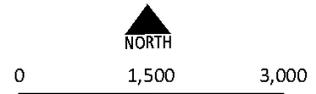
Map 475-5

Map Revised March 1, 2021



Legend

-  River Overlay Boundary
-  OS zoned sites where retail sales and services are allowed

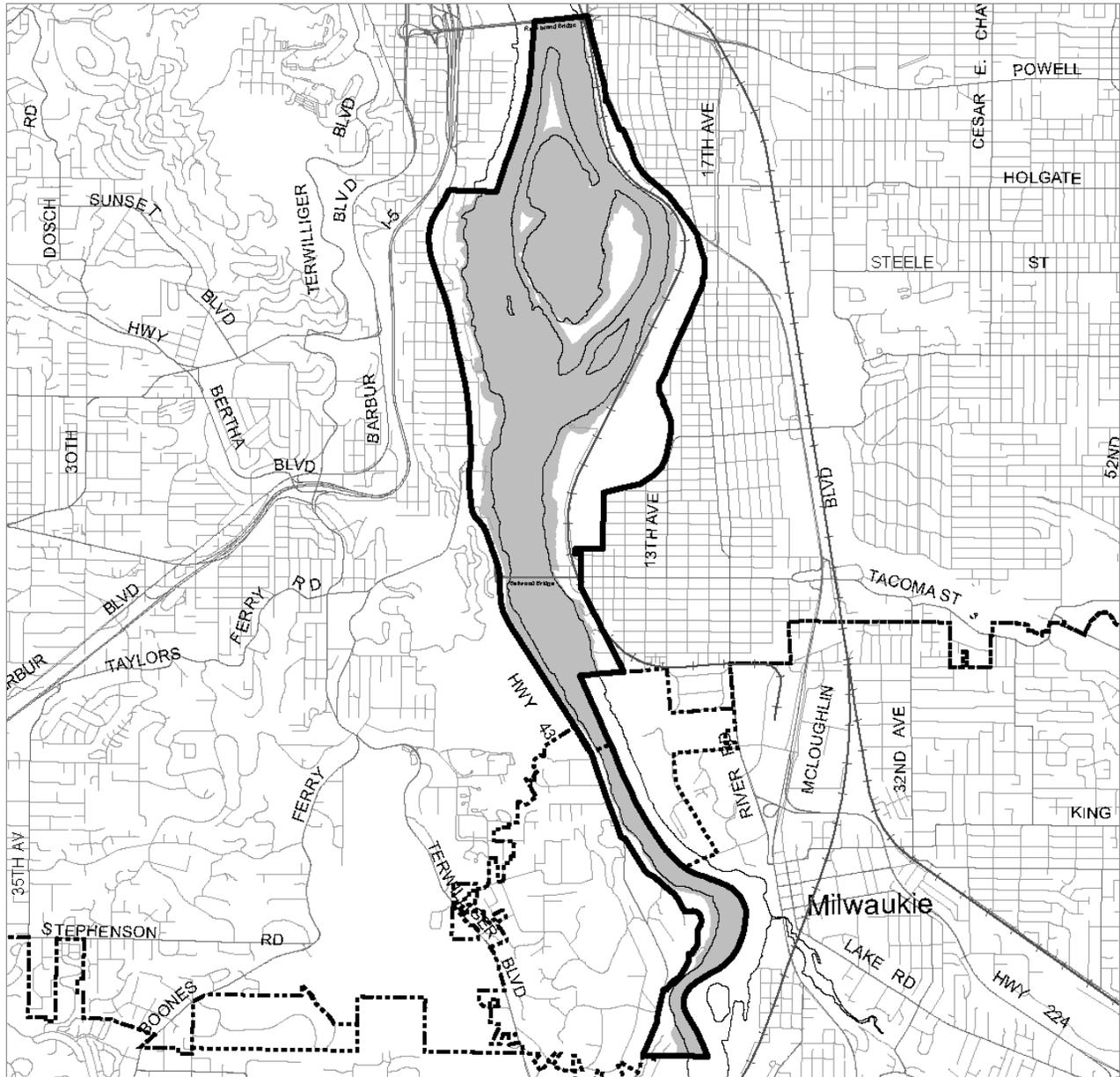


Scale in Feet
Bureau of Planning and Sustainability
Portland, Oregon

South Reach Riparian Buffer Area

Map 475-6

Map Revised March 1, 2021



Legend

- City Boundary
- Urban Service Boundary
- River Overlay Boundary
- Riparian buffer area

