

## **CHAPTER 4.13**

### **RIPARIAN CORRIDOR AND WETLAND PROVISIONS**

#### **Section 4.13.10 - PURPOSES**

These provisions are intended to protect and preserve Significant Riparian Corridors and Wetland areas within the City of Corvallis. They are intended to protect open, natural Streams, drainageways, Floodplains, and Wetlands as integral parts of the City environment. These provisions are also intended to maintain both the hydrological and biological functions of open drainageways, Floodplains, and Wetland systems in accordance with the Corvallis Stormwater Master Plan; OAR Chapter 660, Division 23, the Administrative Rule that implements Statewide Planning Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources; and other state and federal regulations, including Statewide Planning Goal 6 - Air, Water, and Land Resources Quality. In order to assist in the furtherance of these purposes, where not required, open space tracts are encouraged within areas designated as Natural Resources or Natural Hazards on the Comprehensive Plan and Official Zoning Maps.

**a. These provisions are necessary in order to:**

1. Manage stormwater drainage;
2. Accommodate increases in runoff volume resulting from urbanization;
3. Moderate increases in peak flows resulting from urbanization;
4. Minimize drainageway and other maintenance costs;
5. Protect properties adjacent to drainageways;
6. Improve surface and groundwater water quality; and
7. Protect Riparian Corridor and Wetland plant and animal habitats.

**b. Consistent with the Corvallis Comprehensive Plan, these provisions are also intended to:**

1. Minimize harm to natural systems from their use as a stormwater facility;
2. Maintain the Properly Functioning Conditions of Stream and Wetland systems;

3. Preserve hydrological conveyance and storage capacity;
4. Provide for infiltration and groundwater recharge;
5. Allow for natural channel lateral migration and bank failure;
6. Allow for channel widening and other channel modifications that result from changes in hydrology from urban development;
7. Provide proper shading of the Stream to maintain or improve water quality;
8. Allow for a vegetative management strategy that encourages native riparian species;
9. Provide a pollutant filtering zone for surface runoff;
10. Allow for natural Stream processes to minimize Stream channel, bank, and corridor maintenance needs;
11. Buffer urban uses from Stream processes;
12. Provide a source for large woody debris; and
13. Preserve the 0.2-ft. Floodway.

#### **Section 4.13.20 - APPLICABILITY**

These provisions apply to Significant Riparian Corridor and Wetland areas, as mapped on the Corvallis Riparian Corridors and Wetlands Map. However, state and federal Wetland and riparian regulations will continue to apply to Wetland and Riparian Corridor areas within the City, regardless of whether or not they are mapped on the Corvallis Riparian Corridors and Wetlands Map. Nothing in these regulations should be interpreted as superceding or nullifying state or federal requirements.

#### **Section 4.13.30 - GREATER RESTRICTIONS**

This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. It is likely that there will be some overlap between the regulations in this Chapter and those in Chapter 4.5 - Natural Hazard and Hillside

Development Provisions, which regulates development in Natural Hazard areas, including the 100-year Floodplain. Where two regulations are in conflict, the most stringent shall govern.

#### **Section 4.13.40 - PROCEDURES**

Compliance with the provisions of this Chapter shall be determined through the development review processes identified in Section 1.2.110 of Chapter 1.2 - Legal Framework, through the Building Permit or construction permit review processes, or on a complaint basis through applicable sections of the Municipal Code. Applications for Building Permits or other permits for structures and other development activities on sites containing Significant Riparian Corridors or Wetland areas shall be submitted and reviewed to assure that Riparian Corridors and Wetland areas are appropriately protected before any permits are issued or before improvements, excavation, grading, construction, or development begin.

**Application** - When development is proposed on a property containing or abutting a Significant Riparian Corridor or Wetland area, an application shall be submitted that accurately indicates the locations of these Natural Resources and the location of any proposed development. The application shall contain a description of the extent to which any Floodplain, Watercourse, or Wetland is proposed to be altered or affected as a result of proposed development and shall include the information in “a,” and “b,” below.

##### **a. For Properties Adjacent to or Containing Drainageways -**

1. Surveyed Site Map - Prepared by a licensed surveyor or civil engineer, depicting two-ft. contour intervals and the location on the subject property of:
  - a) All Watercourses such as rivers, Streams, ponds, other drainageways, and natural swales;
  - b) Top-of-bank. See Chapter 1.6 - Definitions;
  - c) Appropriate Riparian Corridor width(s), as indicated on the City's Riparian Corridors and Wetlands Map. Measured from Top-of-bank and including the Base Riparian Corridor Widths as described in Table 4.13-1 - Base Riparian Corridor Widths, plus any expanded width required to address Riparian-related Areas. Base Riparian Corridor Widths in Table 4.13-1 - Base Riparian Corridor Widths are established by the size of the drainage basin of each portion of a Stream.

- 1) Riparian-related Areas - Riparian-related Areas are defined as Proximate Wetlands, drainage easements and drainage dedications under the City's jurisdiction; and open space tracts that have been created for Riparian Corridor protection purposes.
- 2) Base Riparian Corridor Widths - Base Riparian Corridor Widths shall be taken directly from the Riparian Corridors and Wetlands Map and shall be measured from Top-of-bank.

| <b>Table 4.13-1 - Base Riparian Corridor Widths</b>   |   |
|---|---|
| Easement Widths are different and are addressed in Section 4.13.70  |   |
| <b>Drainage Basin - as established in the Natural Features Inventory and shown on the Riparian Corridors and Wetlands Map</b>   | <b>Base Riparian Corridor Width - Riparian Corridors may be required to be expanded to address Riparian-related Areas</b> |
| Less Than 20 Acres  | 50-ft. Riparian Corridor  |
| 20 to 160 Acres   | 75-ft. Riparian Corridor  |
| More Than 160 Acres   | 100-ft. Riparian Corridor   |
| Willamette River, Marys River and Their Channels (e.g Boone's Slough)   | 120-ft. Riparian Corridor   |
| <p>Note: When a Stream segment is inventoried as part of a Wetland, and a Wetland Delineation reduces the dimensions of the Wetland area surrounding the Stream, in no case shall the Riparian Corridor width of that Stream be reduced below the appropriate width stated above.</p> |   |

- d) Appropriate Riparian Easement Width(s), as described in Section 4.13.70.
  - e) Existing and proposed development, including areas of fill, excavation, Stream or Wetland crossings, altered vegetation, etc.
2. Location of the Stream's 0.2-ft. Floodway, Floodplain, and All Proximate Wetlands, Consistent with the Application Requirements in Section 4.5.50.02 - The location of the Floodway and Floodplain shall be consistent with the mapped areas on the Flood Insurance Rate Map (FIRM), unless the FIRM conflicts with field conditions or does not map the boundary in a specified location, in which case the City Engineer shall make a determination consistent with Section 4.5.50.04. The location of Proximate Wetlands may

be taken directly from the City's Riparian Corridors and Wetlands Map, or the applicant may provide a Wetland Delineation that has been accepted by the Department of State Lands to precisely locate the Wetland area(s);

3. Topographic lines indicating two-ft. contour levels of both existing and proposed conditions. The existing two-ft. contour levels may be obtained from the City's database, or the applicant may provide a surveyed drawing prepared by a licensed surveyor or civil engineer;
4. Land uses within 100 ft. of the Watercourse edge;
5. Title block, including related development and Stream names, as applicable;
6. North arrow and illustrated scale;
7. Date(s) of field check(s), if any; and
8. Sources of information such as national, state or local soil survey maps; the City's Natural Hazards, Riparian Corridors and Wetlands, Significant Vegetation, Comprehensive Plan, and/or Official Zoning Maps; date and scale of aerial photos, etc.

**b. For properties containing Wetlands, as indicated on the Corvallis Local Wetland Inventory Map** - The submittal materials listed below are required. Additionally, all applications will be reviewed to determine that all necessary permits have been obtained or will be obtained from those federal, state, or local governmental agencies that require prior approval.

1. Site Plan - A site plan that graphically depicts:
  - a) All Wetland boundaries, as indicated on the Corvallis Local Wetland Inventory Map;
  - b) A 25-ft. setback/buffer around the upland edge of locally and non-locally protected Wetlands, as mapped on the City's Local Wetland

Inventory Map<sup>1</sup>. Proximate Wetlands shall not be included when determining this 25-ft. setback/buffer location; and

- c) A Wetland Delineation of the boundaries of the Wetland area, with an accompanying site map, that has been accepted and approved by the Department of State Lands (DSL) may be substituted for the information in “b,” above;
2. Wetland Site Plan and Aerial Photo - A Wetland site plan and aerial photo with all Wetland boundaries identified, as indicated on the Corvallis Local Wetland Inventory Map, and distinguished to show the locally protected Wetlands, non-locally protected Wetlands, and Proximate Wetlands;
  3. Location of existing and proposed development, including areas of fill, excavation, Stream or Wetland crossings, altered vegetation, etc.;
  4. Topographic lines indicating two-ft. contour levels of both existing and proposed conditions. The existing two-ft. contour levels may be obtained from the City’s database, or the applicant may provide a surveyed drawing prepared by a licensed surveyor or civil engineer;
  5. Land uses within 100 ft. of the Wetland edge;
  6. Title block, including related development and Stream names, as applicable;
  7. North arrow and illustrated scale;
  8. Date(s) of field check(s), if any;
  9. Sources of information such as national, state or local soil survey maps; the City’s Natural Hazards, Riparian Corridors and Wetlands, Significant Vegetation , Comprehensive Plan, and/or Official Zoning Maps; date and scale of aerial photos, etc.; and

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Local Wetland Inventories are considered to provide a level of accuracy of within 25 ft. for identification of the Wetland-upland interface. Consequently, the 25-ft setback/buffer identified in Section 4.13.40.b.1.b is intended to ensure that significant Wetlands are protected consistent with the requirements of OAR 660, Division 23 prior to the receipt of a Department of State Lands (DSL) approved Wetland Delineation. For development review purposes, a property owner may propose development within this setback/buffer, and approval may be granted, contingent upon receipt by the City of an approved Wetland Delineation indicating that the proposed development is outside of lands determined to be Wetlands by the Department of State Lands. In such cases, no development permits shall be issued prior to receipt of said Wetland Delineation.

10. Wetland mitigation sites approved by DSL or proposed for approval by DSL, as applicable.

**Section 4.13.50 - USE LIMITATIONS AND EXCEPTIONS WITHIN HIGHLY PROTECTED RIPARIAN CORRIDORS AND RIPARIAN-RELATED AREAS**

Highly Protected Riparian Corridors are those which have been identified as warranting a high level of protection due to their environmental importance and Natural Resource quality. Riparian-related Areas are defined as Proximate Wetlands, drainage easements and drainage dedications under the City's jurisdiction, and open space tracts that have been created for Riparian Corridor protection purposes. Additionally, 100-year Floodplain area serves an important Riparian Function. This area is mapped on the City's Natural Hazards Map, and is subject to the protections outlined in Chapter 4.5 - Natural Hazard and Hillside Development Provisions.

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within Highly Protected Riparian Corridors and Riparian-related Areas, as mapped on the City's Riparian Corridors and Wetlands Map.

- a. **Removal of Vegetation** - Removal of vegetation from Riparian Corridors and Riparian-related Areas is prohibited, except for the following purposes:
  1. Stream restoration and enhancement programs;
  2. Removal of Non-native, Invasive and/or Noxious Vegetation as defined in Chapter 1.6 - Definitions. If necessary, in conjunction with vegetation removal non-rip-rap erosion control measures shall be utilized;
  3. Substitution of local source native plant species for non-native plants. Such local source native plant species shall originate from stock collected from wild plants within 75 miles of planting site;
  4. Development of Water-related or Water-dependent Uses as defined in Chapter 1.6 - Definitions, provided such Uses are designed and constructed to minimize impact on existing Riparian Vegetation;
  5. Removal of emergent in-channel vegetation likely to cause flooding events that result in structural damage;

6. Perimeter mowing/cutting of vegetation for fire hazard prevention/fuel reduction, provided such mowing/cutting occurs no more than 20 ft. around structures;
7. Continuation of agricultural activities occurring on a property prior to December 31, 2004, such as grazing livestock, growing crops, etc. However, the use of herbicides or other pesticides, the application of synthetic fertilizers, and the storage of toxic materials in these areas is subject to applicable state and federal regulations, as well as the restrictions set forth in the Corvallis Municipal Code.
8. Maintenance and protection of the function of City utilities and transportation facilities located within Riparian Corridors and Wetlands;
9. Allowance of activities under an Oregon Department of Fish and Wildlife-approved restoration plan for improving Riparian Function. As a component of this plan, and as a means of controlling the spread of the weeds throughout the Watershed, livestock may be permitted in areas with identified Non-native, Invasive, and/or Noxious Vegetation; and
10. Removal of Hazardous Trees - Requests for removal of Hazardous Trees, except in emergency circumstances, shall be reviewed by the City Urban Forester (or another qualified arborist) and approved, conditionally approved, or denied by the Community Development Director. Any trees removed shall be replaced by like native species or alternative approved native species listed on the City of Corvallis Native Plant List.

**b. Building, Paving, and Grading Activities** - The placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, are prohibited. Exceptions to the drainageway restrictions may be made for the purposes identified in items 1-7 of this Section, provided they are designed and constructed to minimize adverse impacts to Riparian Corridors and Riparian-related Areas.

1. Replacement or Relocation of Existing Buildings - Replacement or relocation of existing buildings, either within the building's original footprint, or with the same or reduced square footage area elsewhere on the site. A relocation of an existing building within the same square footage area, but located elsewhere on the site, is only allowed if the relocation of the building enhances Riparian, Stormwater, and Floodplain Functions. Under no circumstances shall a relocated building be located within 15 ft. of Top-of-bank. The relocation shall be considered to enhance Stormwater, and

Floodplain Function if it furthers any of the following goals without worsening any other goal:

- a) Replaces standard construction with Flow-through Design construction, if the building is within the 100-year Floodplain;
  - b) Moves the structure to a higher elevation;
  - c) Moves the structure further from the Top-of-bank of the adjacent water body;
  - d) Reduces the amount of impervious surface area in the Riparian Corridor; and
  - e) Does not negatively impact non-noxious Riparian Vegetation. Non-native, Invasive, and/or Noxious Vegetation is defined in Chapter 1.6 - Definitions.
2. The location and construction of streets, utilities, bridges, bicycle, and pedestrian facilities within Highly Protected Riparian Corridors and Riparian-related Areas must be deemed necessary to maintain a functional system by the City Engineer. This Code, City Transportation and Utility Master Plans, and other adopted City plans shall guide this determination. The design standards of Chapter 4.0 - Improvements Required with Development shall be applied to minimize the impact to the subject area;
  3. Redevelopment of utility operations existing as of December 31, 2004, is also permitted. Required riparian easement areas shall be re-vegetated consistent with Section 4.13.50.d.1 and Section 4.13.50.d.2;
  4. Development of Water-related and Water-dependent Uses, as defined in Chapter 1.6 - Definitions, where no other viable locations exist;
  5. Erosion control or flood control measures that have been approved by the Oregon Department of State Lands (DSL), the U.S. Army Corps of Engineers, or other state or federal regulatory agency with jurisdiction in this area. Erosion control or flood control measures shall either utilize bio-engineering methods other than rip-rap, or shall utilize rip-rap only to address an imminent hazard to a structure built prior to December 31, 2004. If utilized, the rip-rap installation shall be designed by a Professional Engineer Licensed by the State of Oregon and approved by the Oregon Department of Fish and Wildlife;

6. Development associated with the Minimum Assured Development Area that would be allowed in accordance with Chapter 4.11 - Minimum Assured Development Area (MADA); and
7. Water quality or detention facilities located outside of riparian easement areas, as determined in Section 4.13.70.

**c. Residential Setback Reduction -**

1. When development is occurring pursuant to the provisions of Chapter 4.11 - Minimum Assured Development Area (MADA), the following setback reductions are allowed for properties with Low Density Residential zoning and containing Highly Protected Riparian Corridors. The setback reductions shall apply to:
  - a) Redevelopment in which all structures are removed from the Riparian Corridor area; and
  - b) New development on vacant properties in which no structures are placed within the Riparian Corridor area.
2. Under the circumstances in “1,” above, front and side yard setbacks may be reduced as shown in “a,” through “c,” below. However, the setback for front-loading garages shall remain at 19 ft.
  - a) 10 ft. for the front yard;
  - b) five ft. for an interior side yard; and
  - c) 10 ft. for an exterior side yard.

- d. Re-vegetation of Streambanks -** Commensurate with the extent of new development of structures or of impervious surface areas on development sites containing Stream or river frontage as shown on the City's Riparian Corridors and Wetlands Map, the re-vegetation of Stream banks is required.

For each 500 sq. ft. of new structure area or impervious surface area, 100 lineal ft. of the development site's Stream frontage shall be re-vegetated according to the following standards, up to the total amount of the development site's Stream frontage:

1. Stream bank vegetation, as outlined in "2," below, shall be provided within the first 30 ft. from Top-of-bank, with the exception of the Willamette River, which shall be addressed as indicated in "3," below;
2. Re-vegetation Standards -
  - a) Streams that already have existing vegetation as outlined in this provision are considered to be compliant with these Stream shading standards. To be considered compliant, at minimum the vegetation within the first 30 ft. from the Top-of-bank, as described in "1" above, shall include:
    - 1) An existing vegetated tree canopy consisting of healthy trees at least four in. caliper, measured at four ft. above Natural Grade, and located at an average spacing of 20 ft. along the Stream bank; and
    - 2) An existing vegetated under story consisting of healthy riparian shrubs over at least 50 percent of the area; and healthy groundcover such that the combination of shrubs and groundcover results in a coverage over at least 90 percent of the area.
  - b) Streams that do not have the required existing vegetated tree canopy and existing vegetated under story in the area to be shaded are subject to re-vegetation. Such re-vegetation shall either be that required by an Oregon Department of Fish and Wildlife-approved restoration plan for improving Riparian Function, or that required by the provisions outlined below:
    - 1) In areas that do not meet the tree canopy requirement outlined in "a" above, large-canopy riparian trees, such as Acer Macrophyllum, with a minimum caliper size of 3/4 -1 in. shall be planted in a triple row with staggered spacing of 20 ft. on-center along the length of the Stream bank. All new trees are required to be mulched with four cubic ft. of bark chips and drip irrigated for a period of five years to ensure establishment. All

new trees shall be staked and protected by rodent-proof fencing, as specified by the Public Works Department;

- 2) In areas that do not meet the riparian shrub coverage portion of the under story requirement outlined in “a,” above, riparian shrubs shall be planted and maintained to provide the required 50 percent coverage within five years. The minimum planting size for the riparian shrubs shall be one gallon or 18 in. live stakes. All new shrubs shall be mulched with three in. of bark chips, extending one ft. from the drip line of the shrub or around the live stake or live stake bundle. All new shrubs shall also be irrigated and maintained for a period of five years to ensure establishment.
  - 3) In areas that do not meet the groundcover coverage portion of the under story requirement outlined in “a,” above, groundcover shall be maintained or planted to provide a minimum of 90 percent total coverage of shrubs and ground covers within five years. The minimum planting size shall be one gallon. Ground covers shall be mulched with three in. of bark chips and irrigated for a period of five years to ensure establishment.
3. For properties along the Willamette River, any re-vegetation within the Willamette River Greenway (WRG) shall be determined through the WRG Conditional Development review process and shall be based upon the procedures and criteria contained in Chapter 2.3 - Conditional Development and Chapter 3.30 - Willamette River Greenway (WRG) Overlay. However, for Riparian Corridor areas of the Willamette River Greenway that are subject to the provisions of this Chapter, and are preserved as part of the Conditional Development process, such preserved portions of Riparian Corridors shall be subject to the re-vegetation standards contained in section “2.b,” above.
- e. Subdivisions, Land Partitions, and Property Line Adjustments** - For properties with Natural Resources or Natural Hazards subject to Chapter 4.5 - Natural Hazard and Hillside Development Provisions, Chapter 4.12 - Significant Vegetation Protection Provisions, or Chapter 4.13 - Riparian Corridor and Wetland Provisions, no Subdivision, Partition, or Lot Line Adjustment shall create new lots or parcels unless:
1. Each new and remaining lot or parcel contains an area unconstrained by Natural Resources or Natural Hazards; and

2. The unconstrained area in “1,” above, is equal to or greater than the Minimum Assured Development Area for the zone or zones in which the development site falls.

Exceptions to this requirement are lots created for public park purposes and privately- or publicly-owned lots completely contained within land zoned Conservation-Open Space. New Subdivisions and Partitions may contain common open space tracts for the purpose of protecting Natural Resources and/or avoiding Natural Hazards.

**f. Maintenance** - The limitations imposed by this Section do not preclude the routine maintenance of structures and landscaped areas.

1. Maintenance of lawns, non-native riparian planted vegetation and landscaping shall not expand lawn areas or remove or damage any non-hazardous tree. A lawn area is defined as a vegetated area mowed to 18 in. or less in height.
2. The application of herbicides or other pesticides, and the application of fertilizers are subject to applicable state and federal regulations; and developed properties shall be subject to the restrictions set forth in the Corvallis Municipal Code.
3. Where replanting is done, vegetation shall be replanted with native species or approved alternatives, with the exception of continued Agricultural Uses, as specified in Section 4.13.50.a.7.
4. Maintenance pruning of existing trees shall be kept to a minimum and shall be in accordance with the American National Standards Institute (ANSI) A300 standards for Tree Care Operations. Under no circumstances shall the maintenance pruning be so severe that it compromises the tree’s health, longevity, and resource functions.
5. Vegetation within utility easements shall be kept in a natural state and replanted when necessary with native plant species.

6. Disposal of yard waste or other organic materials, with the exception of downed trees, leaf litter from Riparian Vegetation, and mulch for allowed riparian plantings, is:
  - a) Prohibited within Highly Protected Riparian Corridors;
  - b) Prohibited within 25 ft. of the Top-of-bank within Partially Protected Riparian Corridors; and
  - c) Regulated by restrictions in the Corvallis Municipal Code.
- g. Exemptions** - When performed under the direction of the City, and in compliance with the provisions of the Stormwater Master Plan, the following activities shall be exempt from the provisions of this Chapter:
  1. Response to public emergencies, including emergency repairs to public facilities; and
  2. Routine maintenance or replacement of existing public facilities.

#### **Section 4.13.60 - USE LIMITATIONS AND EXCEPTIONS WITHIN PARTIALLY PROTECTED RIPARIAN CORRIDORS**

In addition to the requirements of the underlying zone, the following limitations and exceptions shall apply to activities within Partially Protected Riparian Corridors, as mapped on the City's Riparian Corridors and Wetlands Map. Unless noted otherwise, the regulations shall apply within 25 ft. of the Top-of-bank of the identified riparian feature:

- a. Removal of Vegetation** - Removal of vegetation from Riparian Corridors is prohibited, except for the purposes outlined in Section 4.13.50.a.
- b. Building, Paving, and Grading Activities** - The placement of structures or impervious surfaces, and grading, excavation, and the placement of fill, are prohibited except as stated below. Exceptions to these restrictions may be made for the purposes identified in items 1-2 of this section, provided they are designed and constructed to minimize adverse impacts to the Riparian Corridor area.
  1. Replacement or Relocation of Existing Buildings - Replacement or relocation of existing buildings, either within the building's original footprint, or with the same or reduced square footage area elsewhere on the site. A relocation of an existing building within the same square footage area, but located elsewhere on the site, is only allowed if the relocation of the building

enhances Stormwater, and Floodplain Functions. Under no circumstances shall a relocated building be located within 15 ft. of Top-of-bank.

Alterations of structures along the Willamette River may be subject to the Willamette River Greenway Conditional Development Permit requirements in Chapter 2.3 - Conditional Development and Chapter 3.30 - Willamette River Greenway (WRG) Overlay.

The relocation shall be considered to enhance Stormwater, and Floodplain Function if it furthers any of the following goals without worsening any other goal:

- a) Replaces standard construction with Flow-through Design construction, if the building is within the 100-year Floodplain;
- b) Moves the structure to a higher elevation;
- c) Moves the structure further from the Top-of-bank of the adjacent water body;
- d) Reduces the amount of impervious surface area in the Riparian Corridor; and
- e) Does not negatively impact non-noxious Riparian Vegetation. Non-native, Invasive, and/or Noxious Vegetation is defined in Chapter 1.6 - Definitions.

2. Exceptions as outlined in sections 4.13.50.b.2 through 4.13.50.b.7.

**c. Residential Setback Reduction -**

1. The following setback reductions are allowed for property zoned Low Density Residential and containing Partially Protected Riparian Corridors. The setback reductions shall apply to:
  - a) Redevelopment in which all structures are removed from the 25-ft. setback/buffer area; and
  - b) New development on vacant properties in which no structures are placed within the 25-ft. buffer area.

2. Under the circumstances in “1,” above, setbacks may be reduced as outlined in “a,” through “c,” below. However, the setback for front-loading garages shall remain at 19 ft.
  - a) 10 ft. for front and side yard setbacks;
  - b) Five ft. for an interior side yard; and
  - c) 10 ft. for an exterior side yard.
- d. **Re-vegetation of Streambanks** - Re-vegetation of streambanks shall be as outlined in Section 4.13.50.d, except that streambank vegetation is required within the first 25 ft. from the Top-of-bank, instead of the first 30 ft.
- e. **Compliance with Some Use Limitations and Exceptions for Highly Protected Riparian Corridors and Riparian-related Areas** - Compliance is required with sections 4.13.50.e through 4.13.50.g of Section 4.13.50 - Use Limitations and Exceptions for Highly Protected Riparian Corridors and Riparian-related Areas.

## **Section 4.13.70 - DRAINAGEWAY TRACTS, EASEMENTS, AND DEDICATIONS**

### **Section 4.13.70.01 - Overview**

- a. **Impacts of Development** - Development can have a number of impacts on the drainage system and its associated water quality. These potential impacts include, but are not limited to:
  1. Increases in the amount and velocity of surface water runoff;
  2. Decreases in the time for stormwater destined for drainageways to reach peak flow;
  3. Increases in the frequency and velocity of floods;
  4. Channel incision and widening;
  5. Increases in water temperature; and
  6. Increases in the quantity and types of pollutants that may enter drainageways.

**b. Minimizing Impacts of Development -**

1. The drainageways within the City are intended to function as a wholistic natural system that includes both Fish-bearing Streams and other Streams whose flow is recognized to have direct impacts on these Fish-bearing Streams. The City intends to manage stormwater from development in a manner that maintains or improves the Properly Functioning Conditions of the Streams utilized for stormwater discharge.
2. Requiring of Easements -
  - a) Reasons for Requiring Easements -
    - 1) To ensure that negative impacts to the system in “a,” above, are minimized;
    - 2) To accommodate and maintain the natural hydrological functions and processes; and
    - 3) To provide and maintain adequate stormwater facilities.
  - b) When the Granting of an Easements is Required -
    - 1) For new development, expansion of existing development, or redevelopment proposed on land abutting or containing an open, natural drainageway.
    - 2) The granting of this easement shall be under the conditions described in Section 4.13.70.02, below, over lands suitable for conveying storm waters and for maintaining and operating an effective open drainageway system.
3. The easement required by “2,” above, is intended to satisfy the purposes cited in Section 4.13.10, as well as the stormwater management purposes identified in Chapter 4.5 - Natural Hazard and Hillside Development Provisions; and shall be reviewed and approved by the City Engineer.

**Section 4.13.70.02 - Easements, Easement Restrictions, Dedications, and Easement Widths**

- a. Easement** - An easement shall be required when:
1. Development is proposed on a vacant parcel or a partially developed parcel, and the amount of impervious surface on the parcel resulting from new development and/or redevelopment occurring after December 31, 2004, would cumulatively equal or exceed 20 percent of the total area of the parcel. The effects of new development and/or redevelopment shall be cumulative from December 31, 2004, and when the net effect of one or more changes results in 20 percent impervious coverage or more, an easement shall be required; or
  2. A parcel of land is divided into two or more parcels, whether by Land Partition or Subdivision.
- b. Easement Restrictions** - The easement shall contain sufficient restrictions on the use of the area to satisfy the purposes cited in Section 4.13.10 above. Restrictions shall apply to structural improvements, regrading, filling, and alteration of existing vegetative cover, as specified on an easement document provided by the City Engineer. Trees that fall within riparian easement areas are not to be removed, unless they are a hazard, or unless they would create flooding that would cause structural damage.
- c. Dedications** - The City will strongly consider accepting voluntary drainageway dedications provided:
1. Public maintenance of the drainageway is anticipated or public ownership will enhance protection of the resource or maintenance of Stormwater Functions;
  2. Dedication of the drainageway area does not create substandard lot size, substandard building setbacks, or otherwise reduce applicable development standards to the point that would render the existing development Nonconforming;
  3. The methodologies for determining width described in subsection “d,” are utilized; and
  4. The land to be dedicated is placed in a separate tract through the Land Division process.

- d. **Easement Widths** - When an easement is required, the appropriate width shall be as described in “1,” through “5,” below. However, in no case shall riparian easements include areas containing existing buildings that are intended to remain, nor shall easements include development area assured under “4,” below.

For areas with Riparian Corridors, as designated on the City’s Riparian Corridors and Wetlands Map, the associated easement width and requirements shall be as follows:

1. Measurement and Separate Tract - Easement areas shall be measured from Top-of-bank, as indicated from a submitted topographic survey, and shall be placed in a separate tract.
2. Easement Width - When an easement is required, the appropriate width shall be as outlined in Table 4.13-2 - Easement Width, except as modified by the provisions in “3,” through “5,” below.

| <b>Table 4.13-2<br/>Easement Width</b>   |  |
|--|--|
| <b>Riparian Corridor Areas Mapped on the<br/>Riparian Corridors and Wetlands Map</b>   | <b>Required Easement Area<br/>--To be Placed in Separate Tracts</b>  |
| All Partially Protected Stream Corridors   | Drainage channel + 25 ft. from Top-of-bank; or<br>The boundary of the 0.2-ft. Floodway, whichever is greater <sup>2</sup>  |
| Highly Protected Riparian Corridors along the Willamette and Mary’s Rivers   | Drainage channel + 75 ft. from Top-of-bank; or<br>The boundary of the 0.2- ft. Floodway, whichever is greater <sup>2</sup> |
| All other Highly Protected Riparian Corridors  | Drainage channel + 50 ft. from Top-of-bank; or<br>The boundary of the 0.2-ft. Floodway, whichever is greater <sup>2</sup>  |
| Note: The area between the outer edge of the easement boundary and the outer edge of the Riparian Corridor is regulated by sections 4.13.50 and 4.13.60. |  |

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Exceptions for select existing structures located between the 1.0-ft. Floodway and the 0.2-ft. Floodway are outlined in Chapter 4.5 - Natural Hazard and Hillside Development Provisions.

3. If the 0.2-ft Floodway boundary, as determined by maps on file with the City Engineer, extends beyond the required width as specified in "2," above, additional easement width shall be provided as needed to encompass the Floodway.
4. If, through the provisions of Chapter 4.11 - Minimum Assured Development Area (MADA), it is determined that encroachment into a Riparian Corridor area is necessary to allow for utilization of the Minimum Assured Development Area, any associated easement requirement shall be relaxed to the extent necessary to allow for the minimum necessary encroachment into the resource area.
5. Easement widths wider than required in "2," above, may be accepted to cover the full Riparian Corridor, as determined per Section 4.13.40.a.1.

#### **Section 4.13.80 - STANDARDS FOR PROPERTIES WITH WETLANDS**

- a. **The City's Riparian Corridors and Wetlands Map identifies two types of Wetlands within the City -**
  1. Locally Protected Wetlands; and
  2. Non-locally Protected Wetlands.
- b. All Wetlands are identified in the City's adopted Local Wetlands Inventory Map. The Inventory includes all Wetlands within the Urban Growth Boundary that are at least 0.5 ac. in size, whether isolated, within Riparian Assessment Areas, or within wildlife habitat assessment areas.
- c. The methodology for identifying the Wetlands was taken from the Oregon Department of State Lands' (DSL) Administrative Rules. The Oregon Freshwater Assessment Methodology (OFWAM) was utilized to assess whether or not a Wetland met the state criteria for a Locally Significant Wetland (LSW). Once a list of Locally Significant Wetlands is identified, a local jurisdiction is able to apply additional local regulations to those LSWs, if it is deemed appropriate.

- d. The City Council determined that a number of the identified LSWs should be locally protected. The identified Locally Protected Wetlands (LPW), on the City's Riparian Corridors and Wetlands Map, represent the Wetlands which are to receive local protection. The Locally Protected Wetlands consist of:
  - 1. Locally Significant Wetlands of Special Concern; and
  - 2. Locally Protected Locally-significant Wetlands.
- e. The Locally Significant Wetlands of Special Concern are Wetlands that are especially worthy of protection due to Oregon Freshwater Assessment Methodology (OFWAM) factors such as the presence of known habitat for rare, threatened, and endangered species. Non-locally Protected Wetlands are mapped on the City's Local Wetlands Inventory Map, but are not subject to local regulations beyond state and federal requirements.

#### **4.13.80.01 - Use Limitations and Exceptions Within Locally Protected Wetlands**

- a. **In addition to the requirements of the underlying zone, the limitations and exceptions in "b," through "e," below, shall apply to -**
  - 1. Activities within Locally Protected Wetlands (LPWs) as shown on the City's Riparian Corridors and Wetlands Map; and
  - 2. The associated 25-ft. setback/buffer area described in Section 4.13.40.b.1.b, unless a delineation results in a different boundary.
- b. **Removal of Vegetation** - Removal of vegetation from Locally Protected Wetlands is prohibited, except for the following purposes:
  - 1. Wetland restoration and enhancement programs approved by the Department of State Lands; and
  - 2. Activities outlined in sections 4.13.50.a.2, 4.13.50.a.3, 4.13.50.a.5 through 4.13.50.a.8, and 4.13.50.a.10.
- c. **Building, Paving, and Grading Activities** - Within LPW areas, the placement of structures or impervious surfaces, as well as grading, excavation, and the placement of fill, is prohibited, except as outlined below. Exceptions to the LPW restrictions may be made for the purposes identified

in “1,” and “2,” below, provided they are designed and constructed to minimize adverse impacts to Wetland Functions.

1. Replacement of existing buildings with buildings located within the original building footprint, provided replacement does not disturb additional surface area within the Wetland area. Vertical additions may be added to these structures if they do not disturb additional surface area within the Wetland area.
  2. Activities outlined in sections 4.13.50.b.2, 4.13.50.b.5, and 4.13.50.b.6.
- d. Compliance with Some Use Limitations and Exceptions for Highly Protected Riparian Corridors and Riparian-related Areas** - Compliance is required with sections 4.13.50.e through 4.13.50.g of Section 4.13.50 - Use Limitations and Exceptions for Highly Protected Riparian Corridors and Riparian-related Areas.
- e. Department of State Lands and US Army Corps of Engineers Notification Required** - In addition to the restrictions and requirements of this Section, all proposed development activities within any Wetland are also subject to Oregon Department of State Lands (DSL) and US Army Corps of Engineers standards and approval. Where there is a difference, the more restrictive regulation shall apply. In accordance with ORS 227.350, as amended, the applicant shall be responsible for notifying DSL and the Corps of Engineers whenever any portion of any Wetland is proposed for development.

No application for development will be accepted as complete until documentation of such notification is provided. Additionally, no site development permits, such as Grading and Excavation Permits, Public Improvements by Private Contract Permits (PIPC), and Building Permits, shall be issued until the City has received verification of DSL and Corps of Engineers approval for development on the subject site.

#### **4.13.80.02 - Procedures for Non-locally Protected Wetlands**

Department of State Lands and US Army Corps of Engineers Notification Required - In addition to the restrictions and requirements of this Section, all proposed development activities within any Wetland are also subject to Oregon Department of State Lands (DSL) and US Army Corps of Engineers standards and approval. Where there is a difference, the more restrictive regulation shall apply. In

accordance with ORS 227.350, as amended, the applicant shall be responsible for notifying DSL and the Corps of Engineers whenever any portion of any Wetland is proposed for development.

No application for development will be accepted as complete until documentation of such notification is provided, and no site development permits, such as Grading and Excavation Permits, Public Improvements by Private Contract Permits (PIPC), and Building Permits, shall be issued until the City has received verification of DSL and Corps of Engineers approval for development on the subject site. Non-locally Protected Wetlands are shown on the City's Local Wetlands Inventory Map.

#### **4.13.90 - MAP REFINEMENTS**

**4.13.90.01 - Map Refinements Defined** - Map Refinements are adjustments made through professional analyses to refine the actual boundaries of some Natural Resources and Natural Hazards. Map Refinements must be made in accordance with the provisions in Chapter 4.5 - Natural Hazard and Hillside Development Provisions and Chapter 4.13 - Riparian Corridor and Wetland Provisions, and are specifically allowed to determine the location and extent of the:

- a. 0.2-ft. Floodway;
- b. 1.0-ft. Floodway, in accordance with FEMA regulations;
- c. 100-year Floodway Fringe, in accordance with FEMA regulations;
- d. Landslide Hazard areas;
- e. Slopes;
- f. Top-of-bank of Streams and rivers;
- g. Riparian Corridors, once Top-of-bank is accurately determined; and
- h. Wetlands, through delineations approved by the Oregon Department of State Lands.

#### **4.13.90.02 - Map Refinements Provisions -**

Map Refinement provisions for Top-of-bank, and Riparian Corridor and wetland boundaries are outlined below. Map Refinement provisions for the 0.2-foot Floodway, the 1.0-ft. Floodway, and the 100-year Floodway Fringe are outlined in

Chapter 4.5 - Natural Hazard and Hillside Development Provisions. Map Refinements are also adjustments to resolve registration issues that may occur between different GIS layers or maps.

- a. **Top-of-bank and Riparian Corridor Boundaries** - Riparian Corridor Boundaries and widths are as noted on the Riparian Corridors and Wetlands Map. They are measured with respect to Top-of-bank. The precise Top-of-bank is determined in the field by a licensed civil engineer. The civil engineer determines the location of Top-of-bank using two-ft. contour intervals and using the methodology cited in the definition for Top-of-bank in Chapter 1.6 - Definitions. The two-ft. contour intervals must be surveyed by a licensed surveyor or civil engineer. The outer bounds of the Riparian Corridors is determined by measuring from the precise location of Top-of-bank, using the widths specified on the Riparian Corridors and Wetlands Map. The boundaries must then be surveyed by a licensed surveyor or civil engineer and mapped using two-ft. contours.
- b. **Wetland Boundaries** - Wetland boundaries must be determined by one of the following two methods:
  1. Using the Corvallis Local Wetland Inventory Map, in which case a 25-ft. setback/buffer must be added to the upland edge of the wetland; or
  2. Using an established and unexpired wetland delineation accepted and approved by the Department of State Lands (DSL), in which case, no setback/buffer is required from the upland edge of the wetland.

#### **4.13.90.03 - Map Refinement Procedures -**

Adjustments to maps consistent with the provisions of Section 4.13.90.01 and Section 4.13.90.02, above, may be Ministerially adjusted on the relevant maps, with no land use process required other than a demonstrated adherence to the provisions of Section 4.13.90.01 and Section 4.13.90.02.

#### **4.13.100 - MAP CORRECTIONS**

No Zone Change or Comprehensive Plan Map Amendment shall be required to accomplish Map Corrections approved in accordance with the provisions outlined in this Section.

- a. Decisions regarding Map Correction requests shall be made by the Community Development Director, as specified in Section 4.13.100.01 and Section 4.13.100.02, below. Upon approval of a Map Correction request, the Director shall ensure that

changes are reflected in the City's affected maps and databases. Notice of such Map Correction shall be provided to decision-makers as outlined in Section 4.13.100.b, below

- b. When requests for five Map Corrections on any Natural Hazard or Natural Resource for which a Map Correction is allowed have been submitted to and decided upon by the Community Development Department Director, or approximately twice a year, whichever is sooner, the Map Correction requests shall be summarized in an informational memo for decision-makers so that they may review them for tracking purposes in accordance with Comprehensive Plan Policy 4.2.6. This memo shall be shared with the Corvallis Planning Commission and City Council for Map Correction requests on lands within the City limits; and with the Corvallis and Benton County Planning Commissions, the Corvallis City Council, and the Benton County Board of Commissioners for Map Correction requests on lands within the Urban Fringe.

#### **4.13.100.01 - Map Corrections Defined**

A Map Correction is not the type of adjustment described in the Map Refinement provisions of Section 4.13.90 above. A Map Correction is, however, an actual correction to maps referencing Natural Hazards or Natural Resources other than Significant Vegetation areas, where it is found that the map depiction does not reflect the Natural Features Inventory. As the Natural Features Inventory (NFI) was the basis for developing the City's maps that reference Natural Hazards and Natural Resources, a correction to the NFI for Natural Hazards or Natural Resources other than Significant Vegetation areas could result in a correction to the related maps. These maps include the Comprehensive Plan Map, Local Wetlands Inventory Map, Official Zoning Map, Natural Hazards Map, or Riparian Corridors and Wetlands Map.

Map Correction provisions for Riparian Corridor widths and Wetland boundaries are outlined below. Map Correction provisions for the 100-year Floodplain and Landslide Hazards are outlined in Chapter 4.5 - Natural Hazard and Hillside Development Provisions.

- a. **Riparian Corridor Widths** - Riparian Corridor boundaries may be refined through the Map Refinement procedures outlined in Section 4.13.90, above. Riparian Corridor widths used to determine the boundaries were developed using information from the Natural Features Inventory regarding the amount of acres drained within specified areas, and then appropriate corridor widths were applied to the Riparian Corridors and Wetlands Map. The relationship between the areas drained and the different Riparian Corridor widths is

contained in Table 4.13-1 - Base Riparian Corridor Widths. If an error is discovered in the mapping portrayal of the information contained within the Natural Features Inventory, a Mapping Correction may be requested.

- b. Wetland Boundaries** - Wetland boundaries may be refined through the Map Refinement procedures outlined in Section 4.13.90, above. However, if it can be scientifically demonstrated that an error exists in the translation of the Natural Features Inventory Information to the associated City Maps, then a Mapping Correction may be requested.

#### **4.13.100.02 - Map Corrections Procedures -**

- a. Riparian Corridor Widths** - Map Correction requests to Riparian Corridor widths indicated by the mapping portrayal of the information contained within the Natural Features Inventory shall be accomplished as outlined in this Section.

If a property owner or property owner's legal representative provides the Community Development Department Director with the items listed in "1," below, a request to revise the Riparian Corridor width indicated on the Riparian Corridors and Wetland Map and other affected maps may be considered as outlined in "2," and "3," below.

1. Documents identifying the specific reach of Riparian Corridor in question, and the specific information in the Natural Features Inventory that the property owner believes has not been accurately translated to the Riparian Corridors and Wetlands Map and related other City maps.
2. If review of the items in "1," above indicate that a mapping error has occurred, then the Director shall ensure that the appropriate changes are made to correct the Riparian Corridors and Wetlands Map and other affected maps and databases.
3. To approve a Map Correction request, the Director must find that the Natural Features Inventory contains information for the specific Riparian Corridor reach in question that is different from that indicated by the Riparian Corridor Width on the Riparian Corridor and Wetlands Map. The appropriate Riparian Corridor widths are as noted in Table 4.13-1 - Base Riparian Corridor Widths.

- b. Wetland Boundaries** - Map Correction requests for Wetland boundaries indicated on the Riparian Corridors and Wetlands Map and other affected maps shall be accomplished as outlined in this Section.

If a property owner or property owner's legal representative provides the Community Development Department Director with the items listed in "1," below, a request to revise the Wetland boundaries indicated on the Riparian Corridors and Wetland Map and other affected maps may be considered as outlined in "2," and "3," below.

1. Documents that identify information contained within the Natural Features Inventory and an explanation of how the property owner believes that the information has not been accurately translated to the Riparian Corridor and Wetlands Map and other City maps. The documents shall identify the specific wetland in question and demonstrate that an error exists.
2. If review of the items in "1," above, indicate that a mapping error has occurred, then the Director shall ensure that the appropriate changes are made to correct the Riparian Corridors and Wetlands Map and other affected maps and databases.
3. To approve a Map Correction request, the Director must find that an error exists in the translation of the Natural Features Inventory Information to the associated City Maps.