

Draft Code--Benton County Stream and Riparian Corridor Protection (SRP) Overlay Zone*

* The following DRAFT Policy will be reviewed and edited by the Benton County Riparian and Wetlands Advisory Group project staff, with input received from landowners and other interested parties (i.e. State agency representatives). A final draft will be prepared, followed by public hearings, and final adoption and implementation by Benton County. Please review the **Stream and Riparian Protection Scenarios** section

(1) Definitions

Avulsion: NOTE: definition and applicability under review by county staff.

Fish and Wildlife Habitat: An area where fish and wildlife depend in order to meet their requirements for food, water, shelter and reproduction.

Fish Bearing Lakes: When a fish bearing stream has seasonal connectivity with a natural or human constructed water body

Fish Bearing Streams: a stream inhabited at any time of the year by anadromous or game fish species, or fish that are listed as threatened or endangered species under the federal or state Endangered Species Act.

Impaired Water Body: Any waterbody of the United States that does not attain water quality standards due to an individual pollutant, multiple pollutants, pollution, or an unknown cause of impairment.

Lake: A naturally occurring still-water body. A water area off of a main channel (e.g. a backwater or slough) is considered a stream and not a lake if there is a likely hydrologic connection with the stream during an average year of precipitation.

Ordinary High Water Line (OHWL): Means the line on the bank or shore to which the high water ordinarily rises annually in season (ORS 274.005). This excludes exceptionally high water levels caused by large flood events (e.g. 100 year events). OHWL is indicated in the field by the following physical characteristics:

- (a) Clear, natural line impressed on the shore;
- (b) Change in vegetation (riparian (e.g. willows) to upland (e.g. oak, fir) dominated);
- (c) Textural change of depositional sediment or changes in the character of the soil (e.g. from sand, sand and cobble, cobble and gravel to upland soils);
- (d) Elevation below which no fine debris (needles, leaves, cones, seeds) occurs;
- (e) Presence of litter and debris, water-stained leaves, water lines on tree trunks; and/or
- (f) Other appropriate means that consider the characteristics of the surrounding areas.

Pond: A human created (e.g. through impoundment or diversion) still-water body with outfall to a stream during some portion of the year with average precipitation. Isolated Ponds (i.e. ponds that do not meet this definition) are not subject to the requirements of this section.

Riparian Area: the area of transition from an aquatic ecosystem to a terrestrial ecosystem.

Riparian Corridor: the area within a boundary established along both sides of a waterway, including the riparian area and any associated wetlands.

Riparian Vegetation: native ground cover, shrubs, trees, and other vegetation predominately influenced by their association with water.

Stream: A channel such as a river or creek that carries flowing surface water, including perennial streams and intermittent streams with defined channels, and excluding man-made irrigation and drainage channels.

Stream-Associated Wetland: A mapped wetland documented on current wetland mapping resources utilized by Benton County, with a portion of the mapped area of the wetland located within the riparian corridor.

Water Area: Area between the banks of a lake, pond, river, perennial or fish-bearing intermittent stream, excluding man-made farm ponds

Water Quality Limited: Any stream segment where it is known that water quality does not meet applicable water quality standards.

Wetland: Area inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soils.

(2) Purpose:

The primary purposes of the SRP overlay zone are to protect the riparian and stream-associated wetland resources of the waterways of Benton County, while preserving the ability of property owners to utilize their lands. Components of the common waterway resources that this code is written to protect, in particular, include: protect and enhance water quality; reduce property damage during floods and storms; protect native plant species; maintain and enhance fish and wildlife habitats; and conserve scenic and recreational values of riparian areas; and to support and improve other diverse natural functions of streams, and associated riparian areas and wetlands.

Note that the provisions of this chapter are not intended to prevent pedestrian access to waterbodies and typical low-impact activities such as fishing.

(3) Uses Exempt from this Code. The following uses, structures and activities are exempt from this Code, as specified below:

- (a) **Nonconforming or “grandfathered” uses.** Legally established structures or land uses existing as of [effective date of the ordinance] within the SRP Overlay shall be

allowed to continue and to be maintained at their current extent, and may be replaced, pursuant to the provisions of BCC 55.305 through 55.340. Expansions of such structures may be allowed through one of the following:

- (A) Up to a 10% increase from the footprint of the structure as it legally existed on [effective date of this ordinance];
- (B) Additions that do not increase the surface area of land designated as SRP Overlay (for example a second story, or expansion of a structure situated on the edge of the SRP Overlay such that the expansion occurs outside of the SRP Overlay).
- (C) As allowed through other provisions of this chapter.
- (b) Legally established **modifications to natural vegetation and topography** (including, for example, landscaping, gardens) existing as of [effective date of this ordinance] within the SRP Overlay shall be allowed to remain and to be maintained at their current extent.
- (c) **Minor trimming** of native riparian vegetation that does not imperil the life of the plant or substantially reduce its ability to perform riparian functions relating to runoff filtration, streambank stabilization, or stream shading, shall be allowed.
- (d) Accepted **farm practices**, not including construction of buildings;
- (e) Removal of a **hazardous tree**;
- (f) **Removal of non-native or invasive vegetation**, provided that such areas remain vegetated in other existing vegetation. Property owners are encouraged to replace removed vegetation with native species. Replanting of disturbed areas shall not allow invasive vegetation.

(4) “Desired Condition” of Riparian Corridors:

NOTE this section is under development with the goal of developing general guidelines for conditions of riparian corridors and providing education and incentives to landowners.

- (a) Definition
- (b) Incentives, Encouragement and Assistance to Property Owners to Achieve Desired Condition
 - (A) Reduced application fees
 - (B) Flexibility in standards
 - (C) Encourage use of existing tax incentives
 - (D) Assist with connecting property owners to federal and state grants, incentives, etc.

(5) Requirements within City Urban Growth Boundaries

- (a) Riparian and wetland setbacks and related regulations for properties located in the Corvallis Urban Fringe shall be subject to the provisions of Chapter 88 Natural Features and Hazards and shall not be subject to this chapter.
- (b) Monroe City limits and UGB (policy in development as of 5/2/11)
- (c) Adair City limits and UGB (policy in development as of 5/2/11)
- (d) Philomath City limits and UGB: Current city code and wetlands map.

(6) Establishment of the SRP Overlay Boundary.

- (a) The riparian protection overlay consists of the following component areas: the area within the channel banks, and the protective overlay zone adjacent to the stream channel banks on both sides of the stream.
- (b) The Riparian Protection Overlay shall apply to all streams and adjacent land areas as they exist on the landscape. The current Benton County SRP Overlay Map identifies the approximate location of streams; however, if an actual location is not consistent with the location shown on the map, the actual location shall be used for determining the location and extent of the SRP Overlay.
- (c) Identification of Ordinary High Water Line:
 - (A) Clear, natural line impressed on the shore;
 - (B) Change in vegetation (riparian (e.g. willows) to upland (e.g. oak, fir) dominated);
 - (C) Textural change of depositional sediment or changes in the character of the soil (e.g. from sand, sand and cobble, cobble and gravel to upland soils);
 - (D) Elevation below which no fine debris (needles, leaves, cones, seeds) occurs;
 - (E) Presence of litter and debris, water-stained leaves, water lines on tree trunks; and/or
 - (F) Other appropriate means that consider the characteristics of the surrounding areas.

(7) The components of the riparian protection overlay:

- (a) **Stream Channel.** The area within the channel limits of a perennial or intermittent water feature from the ordinary high water line of one bank to top of the opposite bank ordinary high water line.
- (b) **Riparian Corridor.** The riparian area measured horizontally, inland, from the ordinary high water line shall be as follows:
 - (A) West of the summit of the Coast Range (Alsea and other coastal basins):
 - (i) For all fish-bearing streams and other fish-bearing water-bodies: 50 feet;
 - (ii) For all other streams: 25 feet for ground-disturbing activities and structures only; see Section 9(a)(C).
 - (B) East of the summt of the Coast Range (Willamette Basin):

- (i) For the Willamette River, including sloughs and side channels: 75 feet;
- (ii) For all fish-bearing streams and other fish-bearing water-bodies not included in (i): 50 feet;
- (iii) For all other perennial streams in the Willamette Basin: 50 feet;
- (iv) For all other streams: 25 feet for ground-disturbing activities and structures only; see Section 9(a)(C).

(c) **Stream-Associated Wetlands** When a wetland extends beyond the edge of the SRP Overlay required by other provisions in this section, Benton County shall:

- (A) Complete a land use notification form and gain determination from Oregon Department of State Lands (DSL) if the proposed activity impacts jurisdictional wetlands and waterways of the State.
- (B) Inform property owner or applicant of mapped wetlands that Oregon DSL determines as jurisdictional wetlands and waterways of the State (see above) and provide landowners with information and available resources for assessing wetland resources, best management practices (i.e. structure placement on property to avoid hydric soils), and other information on importance of wetland functions.

NOTE: Wetland Buffer protections for jurisdictional wetlands and waterways are being reviewed by the Riparian and Wetlands Advisory Group.

- (d) **Steep Slopes.** The entire area of a slope greater than or equal to 25% when any part of the slope is contained within the distances defined in subsection (b).
- (e) **Fish Bearing Lakes.** When a fish bearing stream has seasonal, fish-passable connectivity with a natural or human constructed water body, the water body will be considered a fish bearing stream and be given equal protection (SRP overlay width) as the associated fish bearing stream.

(8) Map Refinement/Correction Procedure.

- (a) **Map Refinement.** “Map refinements” are adjustments made through professional analyses to refine the actual boundaries of the SRP overlay zone. Refinements may be effected administratively, with no land use process required, through the applicant or property owner demonstrating the refinement standards below have been met. Refinements may or may not be shown on the current Benton County SRP Overlay map, depending on scale and other factors, but at a minimum shall be attached to the Community Development Department records for the property.
- (b) **Map Correction.** “Map Corrections” are to rectify errors to the mapping of SRP Overlay boundaries where it is found that the map depiction does not reflect the Inventory, as described for each resource type below. These map corrections shall be

made by the Planning Official and do not require Zone Changes or Comprehensive Plan Map Amendments. Periodically, for informational purposes, the Planning Official shall forward accumulated map corrections to the Benton County Board of Commissioners and Planning Commission.

- (c) Once a water of the state has been classified according to Section 7, Benton County shall not change the classification without written notice to the landowners immediately adjoining the portion(s) of water to be reclassified. Notice to landowners shall include the reason for the change of classification and applicable rules.

(9) Options for Property Owner Management of the Riparian Corridor. A property owner may choose to manage the land in the SRP Overlay under any one of the options in subsections (a) through (d).

(a) Option A: Clear and objectives standards.

(A) Removal of Vegetation: The removal of vegetation from the SRP Overlay is prohibited, except for the following uses after Planning Official approval:

- (i) Replacement of vegetation with native riparian species as is necessary for restoration activities;
- (ii) “Harvest-related” commercial timber cutting activities authorized by the Oregon Department of Forestry and subject to the Oregon Forest Practices Rules.
 - (1) If the property owner proposes a forestland conversion, “Waiver to Reforestation”, or “Plan for Alternative Practice” following a forestry operation, land within the riparian overlay shall be considered not incompatible with tree propagation and therefore should be replanted pursuant to the Forest Practices Rules unless the planned and implemented use is a use listed in this subsection.
- (iii) On slopes greater than 25% that are included in the riparian overlay due solely to 7(d) vegetation removal may be authorized by a site-specific geotechnical report certifying that proposed activities will not increase sediment delivery to the water body and associated wetlands.
- (iv) Stream restoration and enhancement programs approved by the Oregon Department of Fish and Wildlife as improving riparian function, and wetland restoration and enhancement programs approved by Oregon Department of State Lands or the Oregon Department of Fish and Wildlife.
- (v) Development of water-related or water-dependent uses that are allowed in the underlying zone, provided they are designed and constructed to minimize impact on existing riparian vegetation.
- (vi) The minimum vegetation removal necessary to establish and maintain a fire fuel-break safety zone surrounding a structure, as defined in BCC 88.010(2). Benton County encourages property owners to consult with the Oregon Department of Fish and Wildlife on ways to minimize the impact of this vegetation removal and to mitigate the impacts that do occur.

(vii) Vegetation removal in conjunction with a development activity allowed under Section (B), below.

(B) Building, Paving, and Ground-Disturbing Activities: Within the SRP Overlay, the placement of structures or impervious surfaces, including grading, excavation, placement of fill, and other ground-disturbing activities, are prohibited except as stated below. Exceptions to the SRP Overlay restrictions may be made for the following uses, provided they are designed and constructed to minimize adverse impacts to the riparian area:

- (i) Replacement of existing structures with structures located on the original building footprint or up to a maximum deviation of 10% from the original footprint. Vertical additions to these structures are allowed if they do not disturb additional riparian or wetland surface area. Structures abandoned for a period of one year or longer are not eligible for replacement.
- (ii) The following types of infrastructure, provided they are oriented perpendicular to the riparian corridor or otherwise designed to cause negligible impact to proper riparian or wetland function, and provided any necessary stream crossings meet Oregon Department of Fish and Wildlife fish passage standards and accommodate the 50-year flood event flow:
 - (1) Construction and maintenance of streets, roads, public utilities, and bicycle and pedestrian ways that are included in the Benton County Transportation System Plan, or in other adopted County infrastructure/utility plans. If a street or road is allowed by Benton County to be constructed within the SRP Overlay, the road shall be designed and constructed as narrowly as necessary to meet safety standards.
 - (2) Construction of streets, roads, and pedestrian ways necessary in order to maintain an acceptable functional classification of roadways adjacent to the property, if no feasible alternative is available outside of the SRP Overlay. If a street or road is allowed by Benton County to be constructed within the SRP Overlay, the road shall be designed and constructed as narrowly as necessary to meet safety standards.
 - (3) Driveways necessary to provide access to an approved building site, provided the disturbed riparian surface area is minimized.
 - (4) Pedestrian trail, which is an unpaved path, four feet or less in width, designed for and used primarily by pedestrians.
- (iii) Routine maintenance or replacement of existing public facilities that adhere to Best Management Practices for riparian vegetation in Benton County ;
- (iv) On slopes greater than 25% that are included in the riparian overlay due solely to 7 (d) building, paving or grading activities may be authorized by a site-specific geotechnical report certifying that proposed activities will not increase sediment delivery to the water body and associated wetlands.

- (v) Development of water-related and water-dependent uses allowed by the underlying zone, and where no other viable locations exist, and that have minimal impact on riparian and wetland surface area;
 - (vi) Erosion control or flood control measures that have been approved by the Oregon Department of State Lands (DSL) and/or the U.S. Army Corps of Engineers, and that utilize bio-engineering methods. Streambank hardening (installation of hard-surfaced erosion- or flood-protection structures such as rip-rap) is prohibited except where necessary to address an imminent hazard to a structure built prior to October 6, 2005. Where allowed, hard-surface measures shall be designed by a Professional Engineer licensed by the State of Oregon, and shall at a minimum, require backfilling with soil and planting with native vegetation;
- (C) **25-Foot-Buffer Streams.** Within the SRP Overlay on streams identified in Section (7)(b)(D), building, paving and grading activities shall comply with the provisions of subsection (B) of this section, but the vegetation removal provisions of subsection (A) of this section shall not apply.

NOTE: Options B, C and D are currently incomplete and are being reviewed by the Riparian and Wetlands Advisory Group.

(b) Option B: Maintain and enhance.

- (A) The applicant shall submit:
 - (i) Documentation of the existing conditions of the SRP Overlay area on the property to establish a baseline of conditions. Note that vegetation removal or ground disturbance within the riparian corridor for purposes of establishing a lower baseline is a violation of this code.
 - (ii) A plan for maintaining and enhancing conditions. The plan may include areas of vegetation removal and development activities within the SRP Overlay area provided the management plan demonstrates a net positive effect to ecosystem function will result from the management activities.
- (B) Approval of the plan will result in a binding agreement between the property owner and Benton County. Failure of the property owner to implement and maintain the plan as approved may result in enforcement action.

(c) Option C: Meet “Desired Condition”

- (A) The applicant shall submit a plan for management of riparian area that:
 - (i) may include areas of vegetation removal and development activities within the SRP Overlay area; and
 - (ii) demonstrates that the resulting riparian area will meet the “Desired Condition” defined in Section 4.

(d) Option D: Variable buffer widths

(A) The applicant shall submit a detailed site plan showing existing land use and land cover, and proposing a modification to the buffer widths required by Section 7. Under this option:

- (i) A minimum buffer width of at least 50% of the standard requirement shall be maintained at all points.
- (ii) The width of the required buffer may vary, as long as the total area (square feet) subject to the buffer is at least 100% of the amount that would be protected under Option A.

(B) In areas of reduced buffer width, the property owner shall ensure that stormwater runoff is dispersed so as not to concentrate flow in a way that delivers pollutants to the water body.

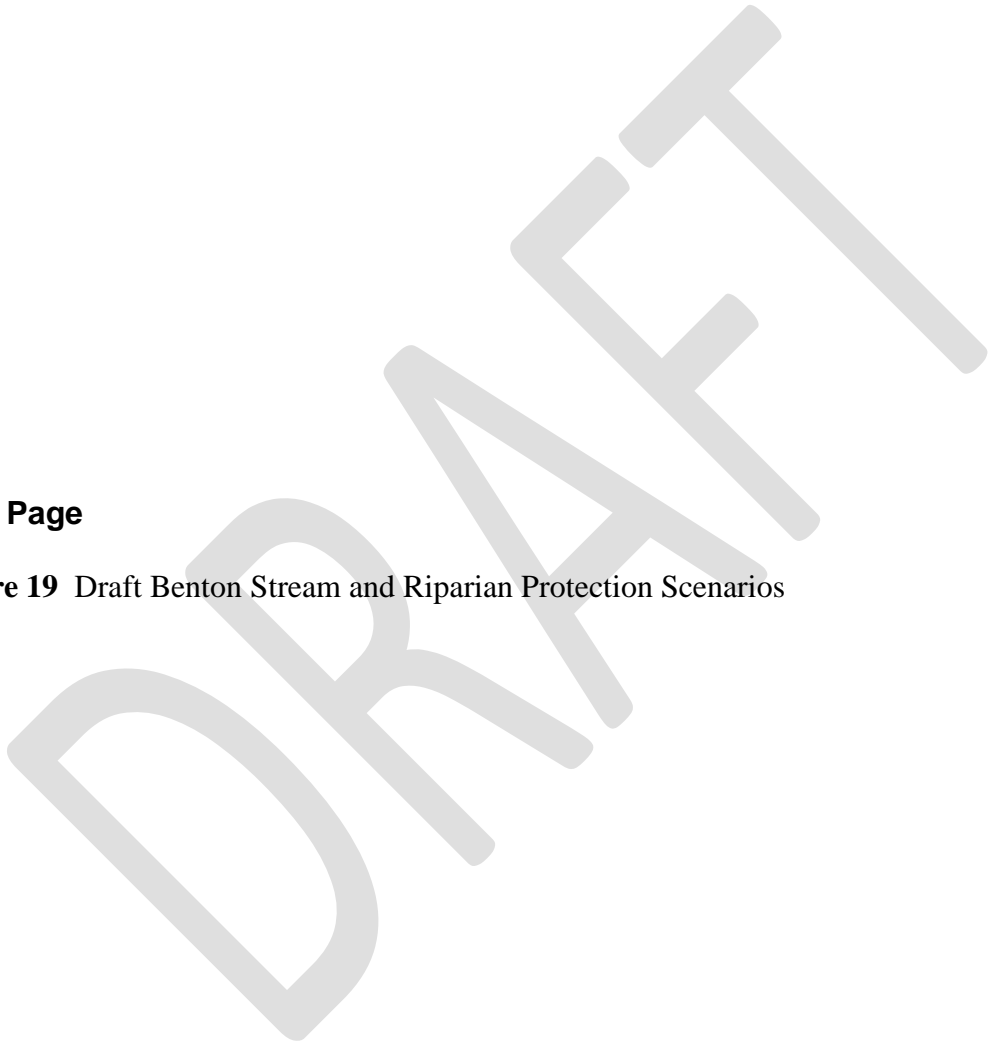
(10) Land Divisions and Property Line Adjustments. Subdivisions, partitions, and property line adjustments must be designed so that the resulting lots or parcels can be developed in conformance with SRP Overlay.

(11) Hardship Variances. A property owner who, due to the provisions of the SRP Overlay, is unable to utilize land in a manner that would be reasonably expected given site conditions, the underlying zoning, and other relevant factors, may apply for a variance pursuant to the provisions of BCC Chapter 53.

See Next Page for Scenarios for Implementation of Draft Code

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Figure 19 Draft Benton Stream and Riparian Protection Scenarios

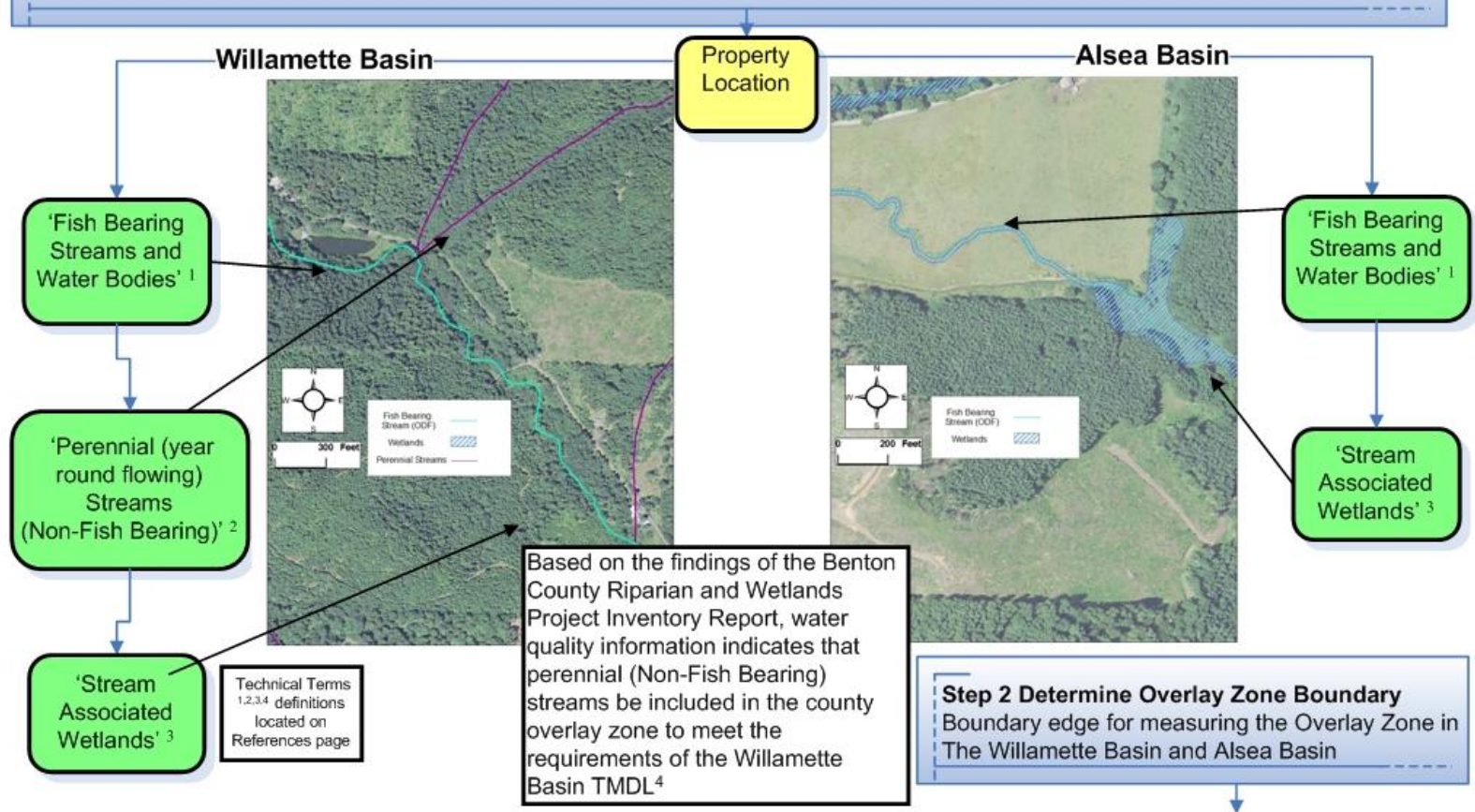


Benton County Stream and Riparian Protection Scenarios

The following are common scenarios for protection of stream and riparian resources. The following scenarios outline how Benton County Stream and Riparian Protection (SRP) Overlay Zone code amendments would be applied. The scenarios were developed from Local Landowner input at twelve (12) community meetings, and monthly meetings of the Riparian and Wetlands Advisory Group.

Step 1 Delineation of the Stream and Riparian Protection Overlay Zone

The Overlay Zone boundaries will be established differently for properties with applicable riparian/wetland resources

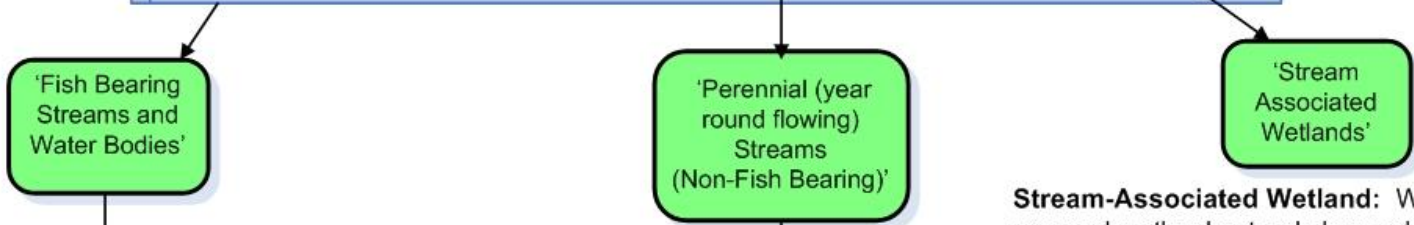


Benton County Stream and Riparian Protection Scenarios

Continued (pg 2 of 7)

Step 2 Determining the Overlay Zone Boundary in the Willamette Basin

The following scenarios apply to the portion of the Willamette Basin in Benton County



Riparian Corridor: The riparian area measured horizontally, inland, from the ordinary high water line are as follows

- (A) For the **Willamette River**, including sloughs and side channels: 75 feet;
- (B) For **all other fish-bearing streams and other fish-bearing water-bodies**: 50 feet;

See page 4 for description of how the ordinary high water line will be determined by Benton County.

'Perennial (year round flowing) Streams (Non-Fish Bearing)'

Riparian Corridor: The riparian area measured horizontally, inland, from the ordinary high water line are as follows

For all other **perennial streams** in the Willamette Basin: 50 feet

'Stream Associated Wetlands'

Stream-Associated Wetland: When a mapped wetland extends beyond the edge of the SRP riparian corridor Overlay zone

DRAFT OPTIONS

25 foot buffer from mapped wetland edge if Oregon Dept of State Lands indicates that the proposed actions can impact jurisdictional wetlands and waters.

25 foot buffer for National Wetlands Index mapped wetlands

Other?

Step 2 continued Determining the Overlay Zone Boundary in the Alesea Basin

The following scenarios apply to the portion of the Willamette Basin in Benton County

Benton County Stream and Riparian Protection Scenarios

Continued (pg 3 of 7)

Step 2 Determining the Overlay Zone Boundary in the Alsea Basin

The following scenarios apply to the portion of the Alsea Basin in Benton County

'Fish Bearing
Streams and
Water Bodies'

Riparian Corridor: The riparian area measured horizontally, inland, from the ordinary high water line are as follows

- (A) For the **Willamette River**, including sloughs and side channels: 75 feet;
- (B) For **all other fish-bearing streams and other fish-bearing water-bodies**: 50 feet;

See page 4 for description of how the ordinary high water line will be determined by Benton County.

'Stream
Associated
Wetlands'

Stream-Associated Wetland: When a mapped wetland extends beyond the edge of the SRP riparian corridor
Overlay zone

DRAFT OPTIONS

25 foot buffer from mapped wetland edge if Oregon Dept of State Lands indicates that the proposed actions can impact jurisdictional wetlands and waters.

25 foot buffer for National Wetlands Index mapped wetlands

Other?

Step 3 Determining the Ordinary High Water Line in the Alsea Basin and Willamette Basin

The following scenarios apply to the portion of the Alsea Basin and Willamette Basin in Benton County

Benton County Stream and Riparian Protection Scenarios

Continued (pg 4 of 7)

Licensed Civil Engineer or Surveyor

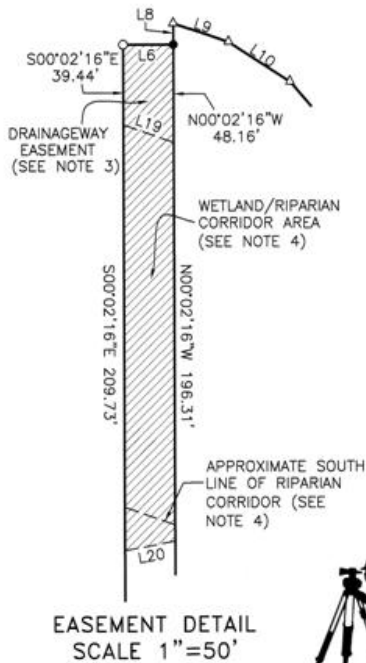
Site Assessment

Step 3 Determination of Ordinary High Water Line⁵
 The ordinary high water line (as defined in DIVISION 141-085 Oregon Administrative Rules for waters of Oregon including wetlands)

Site Assessment

County Planning Official/ Staff using available mapping, photos and other site evaluation techniques

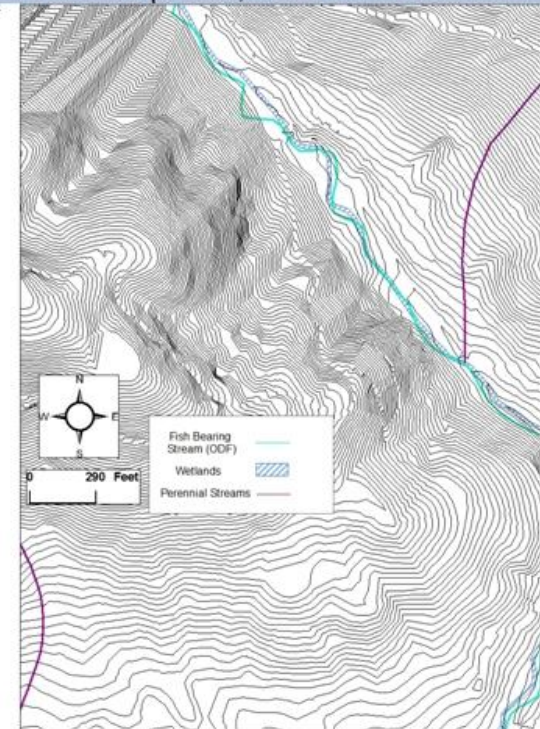
Example of licensed survey to determine Ordinary High Water Line



Photos and on-site visits

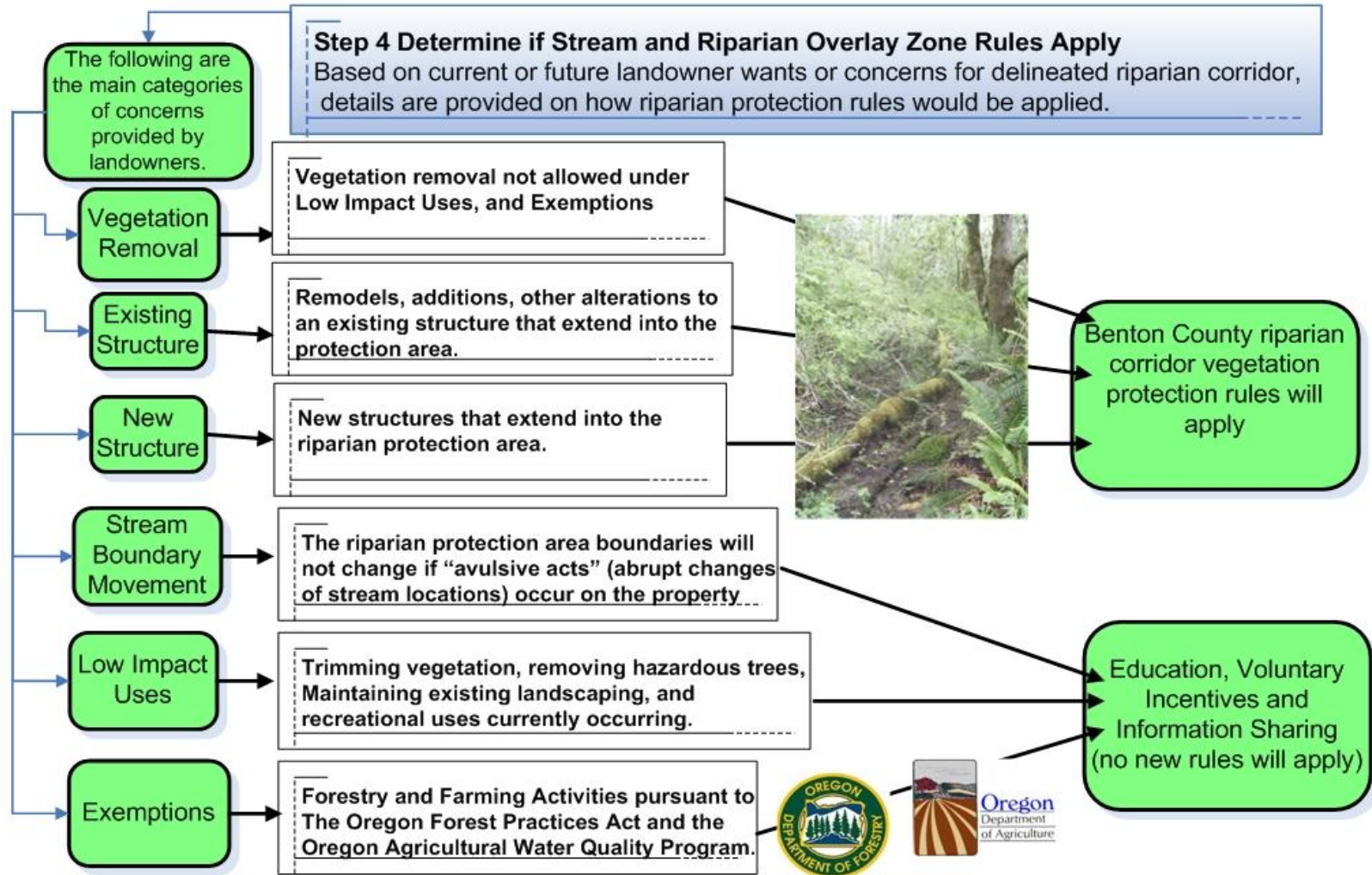


Examples of available County contour data available for determining top of bank
 With site photos, visits where needed



Benton County Stream and Riparian Protection Scenarios

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Benton County Stream and Riparian Protection Scenarios

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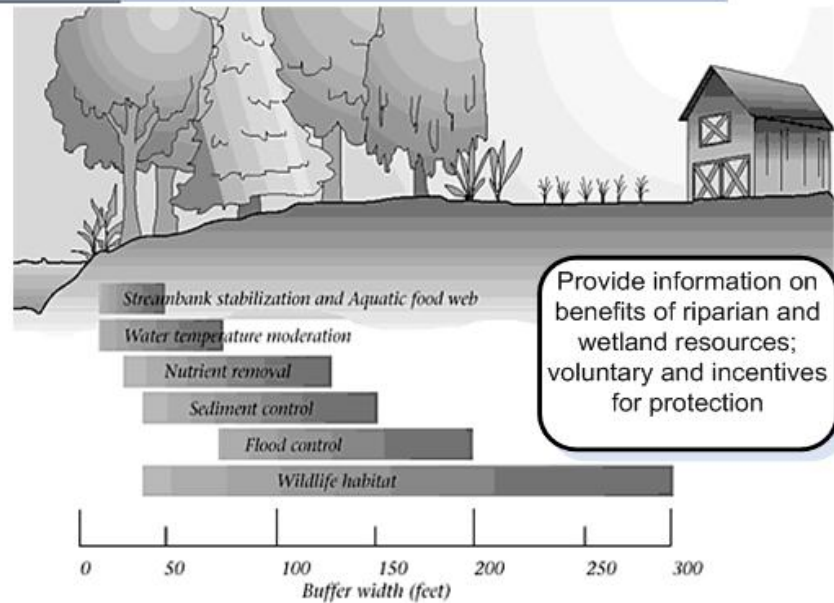
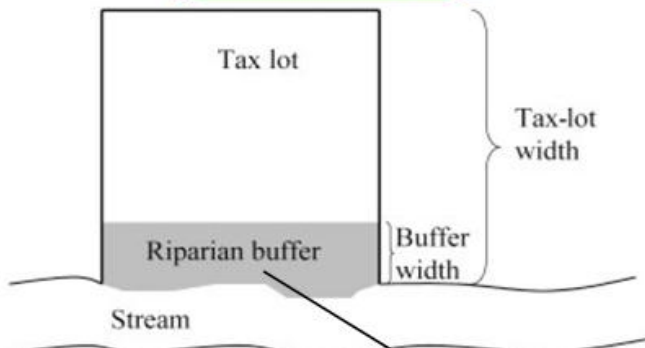
Step 5 Process for Reviewing and Implementing Stream and Riparian Overlay Zone Rule Requirements

Details on how riparian protection rules are applied to properties.

County Review and Requirements

***Note that Benton County Building Setbacks currently require 25 to 50 ft. setbacks from streams**

Known or Proposed Alterations to Riparian Vegetation within Riparian Corridor that are not exempt



**Minimize Vegetation Removal/Riparian Overlay Zone Disturbance;
Require replanting if area is disturbed;
Provide for Variance Process if requested
by landowner (see Draft Stream and Riparian Overlay Zone)**

Benton County Stream and Riparian Protection Scenarios References

Continued (pg 7 of 7)



- 1. Fish Bearing Lakes:** When a fish bearing stream has seasonal connectivity with a natural or human constructed water body.
- 2. Fish Bearing Streams:** a stream inhabited at any time of the year by anadromous or game fish species, or fish that are listed as threatened or endangered species under the federal or state Endangered Species Act.
- 3. Stream-Associated Wetland:** A mapped wetland documented on current wetland mapping resources utilized by Benton County, with a portion of the mapped area of the wetland located within the riparian corridor.
- 4. TMDL (Total Maximum Daily Load):** is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards.
- 5. Ordinary High Water Line:** Means the line on the bank or shore to which the high water ordinarily rises annually in season (ORS 274.005). This excludes exceptionally high water levels caused by large flood events (e.g. 100 year events). OHWL is indicated in the field by the following physical characteristics:
 - (a) Clear, natural line impressed on the shore;
 - (b) Change in vegetation (riparian (e.g. willows) to upland (e.g. oak, fir) dominated);
 - (c) Textural change of depositional sediment or changes in the character of the soil (e.g. from sand, sand and cobble, cobble and gravel to upland soils);
 - (d) Elevation below which no fine debris (needles, leaves, cones, seeds) occurs;
 - (e) Presence of litter and debris, water-stained leaves, water lines on tree trunks; and/or
 - (f) Other appropriate means that consider the characteristics of the surrounding areas.

DRAFT