



**CONSERVATION ENHANCEMENT ACTIVITY**

**E390A**

**CONSERVATION STEWARDSHIP PROGRAM**

Increase riparian herbaceous cover width for sediment and nutrient reduction

**Conservation Practice 390: Riparian Herbaceous Cover**

**APPLICABLE LAND USE: Crop (Annual & Mixed); Crop (Perennial)**

**RESOURCE CONCERN: Water**

**ENHANCEMENT LIFE SPAN: 5 Years**

**Enhancement Description**

Where an existing herbaceous riparian buffer is located along a river, stream, pond, lake, or other waterbody, increase the width of the buffer in order to allow a greater percentage of sediment and nutrient removal from surface and subsurface flows.

**Criteria**

- Existing buffer width shall be at least 35 feet or (if applicable) the minimum State buffer-width requirement, whichever is greater. Maximum enhancement buffer width may be increased up to the greater of 100 feet or the State-allowed maximum width.
- To the extent possible, the buffer area and extended buffer will be shaped and vegetated to increase overland flow interception.
- Concentrated flow erosion or mass soil movement shall be controlled in the up-gradient area prior to establishment of the riparian herbaceous cover.
- Existing underground functional drains that pass through these areas shall be replaced with rigid, non-perforated pipe through the buffer or equipped with a management regulating structure to allow control of overflow.

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- Species selected shall have stiff stems and high stem density near the ground surface to reduce water velocities and facilitate infiltration into the floodplain. Only viable, high quality and site-adapted planting stock will be used. Selection of native plants is recommended.
- In areas where native seeds and propagules are present, natural regeneration can be used in lieu of planting. Planting is required if no native seed bank is present.
- Selected plant species must be adapted to the projected duration of saturation and inundation of the site.
- Where available, use Ecological Site Description to guide restoration to appropriate vegetative community phase and include appropriate vegetative functional groups.
- Necessary site preparation and planting shall be done at a time and manner to insure survival and growth of selected species.
- Management systems applied will be designed to maintain or improve the vigor and reproduction of the desired plant community.
- Harmful pests present on the site will be controlled or eliminated as necessary to achieve and maintain the intended purpose. Pest management will be conducted in a manner that mitigates impacts to pollinators.
- Protect riparian vegetation by reducing or excluding haying and grazing until the desired plant community is well established, with grazing deferred for a minimum of two years.
- Design the expanded buffer enhancement for an expected life of at least 5 years.



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## Documentation and Implementation Requirements

### Participant will:

- Prior to implementation, prepare the planned buffer area for vegetation establishment. Refer to NRCS Conservation Practice Standard Riparian Herbaceous Cover (Code 390). (NRCS will provide technical assistance, as needed.)
- Prior to implementation, in areas that are highly disturbed and are unlikely to have existing native seed in the soil work closely with NRCS to select plant species that are adapted to your specific site. (NRCS will provide technical assistance, as needed.)

Species	Species type (grass, legume, forb)	Rate (Lbs/Ac) PLS

- Prior to implementation, select planting technique and timing appropriate for the site and soil conditions. (NRCS will provide technical assistance, as needed.)

Planting Date	
Planting Technique	
Seeding Depth	

- During implementation, grade the site, as needed, to eliminate concentrated flow through the buffer including that from uphill from the buffer.
- During implementation, replace any underground functional tile drains that pass through the buffer with rigid, non-perforated pipe or install a management regulating structure to allow overflow control.
- During implementation, conduct planting of selected species according to dates, techniques, depth, and other requirements listed in the plan.
- During implementation, install and maintain erosion control measures as needed, such as silt fencing and mulching.
- During implementation, notify NRCS of any planned changes to allow NRCS to verify that the changes meet NRCS enhancement criteria.



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- After implementation, control harmful pests at the site, as necessary, and in a manner that mitigates impacts to pollinators.
- After implementation, protect the area by reducing haying and excluding grazing until the plant community is established, deferring grazing for a minimum of two years.

**NRCS will:**

- Prior to implementation, provide and explain NRCS Conservation Practice Standard Riparian Herbaceous Cover (Code 390) to show how it relates to this enhancement.
- Prior to implementation, verify the enhancement is planned for cropland.
- Prior to implementation, verify the enhancement is planned for acres that have been appropriately prepared for riparian herbaceous cover.
- Prior to implementation, verify no plants on the Federal or state noxious weeds list are included.
- As needed, prior to implementation, NRCS will provide technical assistance:
  - Preparing a site plan that meets NRCS Conservation Practice Standard Riparian Herbaceous Cover (CPS 390).
  - Selecting the stiff-stemmed species of grasses and/or perennial forbs best suited to site saturation and inundation conditions.
  - Selecting planting techniques and timing appropriate for the site and soil conditions.
  - Planning the use of additional erosion control, as needed for the site.
  - Preparing specifications for applying this enhancement for each site using approved state implementation requirements, national technical notes, appropriate state technical notes, and narrative statements in the conservation plan, or other acceptable documentation.
- During implementation, evaluate any planned changes to verify they meet the enhancement criteria.

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- During implementation, verify all erosion control needed for the site is functioning and is maintained to specifications developed for the site.
- After implementation, verify the vegetation was established to specifications developed for the site.
- After implementation, verify the planting is protected from pests, has had limited haying, and that grazing is being excluded, if established less than two years.

**NRCS Documentation Review:**

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name \_\_\_\_\_ Contract Number \_\_\_\_\_

Total Amount Applied \_\_\_\_\_ Fiscal Year Completed \_\_\_\_\_

\_\_\_\_\_  
NRCS Technical Adequacy Signature                      Date

Sign and Certify in Oregon Supplement below

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## OREGON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY E390A

### Additional Recommendations and Guidance

- If the base practice (390) is being contracted and paid for along with the enhancement, complete an Oregon 390 IR for the project, indicating species and quantities to be seeded/planted. If the base practice has been completed or the site has been inventoried and found to meet specifications, the planner should document this information (such as an IR from a previous contract or some other form of documentation/inventory).
- Use an Oregon Wildlife Habitat Evaluation Guide or Stream Visual Assessment Protocol (SVAP2) to determine general habitat condition. [eFOTG: Section 3: Oregon Conservation Planning Documents: Wildlife Habitat Inventory Documents](#)

Present WHEG Score or SVAP2 Score: \_\_\_\_\_  
 Planned WHEG Score or SVAP2 Score: \_\_\_\_\_

- Document how this enhancement will reduce sediment and nutrient movement into an adjacent stream.

### Plant Guidance

Plants seeded or planted at the site should be suitable to the MLRA (ecoregion) and riparian habitat location. Planners should consult ecological site information (if available and using native plants) in determining plant selections. Native plants or seeds used for enhancement should originate from the same MLRA (or similar climate) as the enhancement location.

Refer to the following documents to help select suitable "stiff-upright" plants to seed or plant for expansion of an Herbaceous Riparian Buffer. Other species not contained in these documents may be appropriate for use. For further recommendations in plant species selection for enhancements, please contact your Basin Agronomist or Basin Biologist, or Plant Material Specialist.

## Statewide

### [Oregon & Washington Guide for Conservation Seedings and Plantings](#)

Use the Oregon Flora Garden portal - <https://oregonflora.org/garden/> - to select potential species to use and see photos and descriptions of the species. Start by selecting the characteristics that you need for your planting, in this case, riparian herbaceous plants. On the left-side panel, choose "plant type" boxes of "herb", "grass and grass-like" and "fern or fern ally". Also, select the ecoregion of your project site and select habitats that fit the project site. The plant selections on your right will narrow as you select attributes on the left-hand panel. This site only includes native plants.

### Western Oregon:

Guide for using Willamette Valley plants along your streams: <http://linnswcd.oacd.org/NativePlantGuide05.pdf>

Native Plants for Willamette Valley Yards Booklet. 2018. Metro. : <https://www.oregonmetro.gov/native-plants-willamette-valley-yards-booklet>

### Eastern Oregon

[Description, Propagation and Establishment of Wetland Plant Species and Grasses for Riparian Areas in the Intermountain West](#)

[Conservation Plant Species for the Intermountain West](#)

[Washington Technical Note 10: Riparian Revegetation Plants:](#)

### **Seed and Plant Vendors - places to find plants**

[Oregon Plant Material Technical Note No. 9 – “Plant and Seed Vendors for Oregon, Washington, Idaho, and Northwest California”](#)

Oregon Flora Project Website – Gardening Portal – Nurseries that supply native plants: <https://oregonflora.org/garden/>

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**Design Approvals & Acknowledgements:**

<b>Design Approval</b>	<b>Date</b>	<b>Job Approval Authority</b>
Designed by:		
Approved by:		

**Client's Acknowledgement Statement:**

The client acknowledges:

- I have received a copy of the specification and understand the contents and requirements.
- It is my responsibility to obtain all necessary permits and/or rights and to comply with all ordinances and laws pertaining to the application of this practice.
- I will not begin installation of this practice until I have received appropriate approval to do so. I understand NRCS also has Federal and state laws to comply with that may take some time to address (e.g. cultural resources).

<b>Client's</b>	<b>Date</b>
<b>Signature</b>	



**Certification Documentation:**

	Field Evaluation: Post-treatment inventory, measurements, notes, as-built, and supporting documentation (document completion in conservation plan), as required.
	Map(s): Including field numbers, fields treated, and units treated (may document on conservation plan map), as required.
	Photos or other supporting documentation (e.g., seed tags, soil tests, receipts, invoices, spray records, fertilizer records, etc.)
Brief Description of Work Accomplished (types of equipment used, date of application, extents and quantities installed, etc.)	

**Certification Statement:**

The employee certifies the implementation of this conservation practice:

- Meets the purpose, general criteria, and any required additional criteria as documented in the conservation practice standard and/or enhancement sheet.
- Meets the specifications contained herein and is complete.
- Conforms to my existing Job Approval Authority controlling factors and levels.

Name	Date	Job Approval Authority

<b>Field Level Certification</b> – For multiple applications of this design.				
Land Unit/ Contract Item Number	Date	Unit(s)	Amount Installed	Certifier