



Jackson Soil & Water Conservation District
89 Alder Street Central Point OR 97502
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www.jswcd.org

Riparian Restoration Rebate Program

Contact Information:

Applicant Name(s):
Address:
Phone:
E-Mail:

Office use only

Application Number:
District Rep:

Project Location & Size

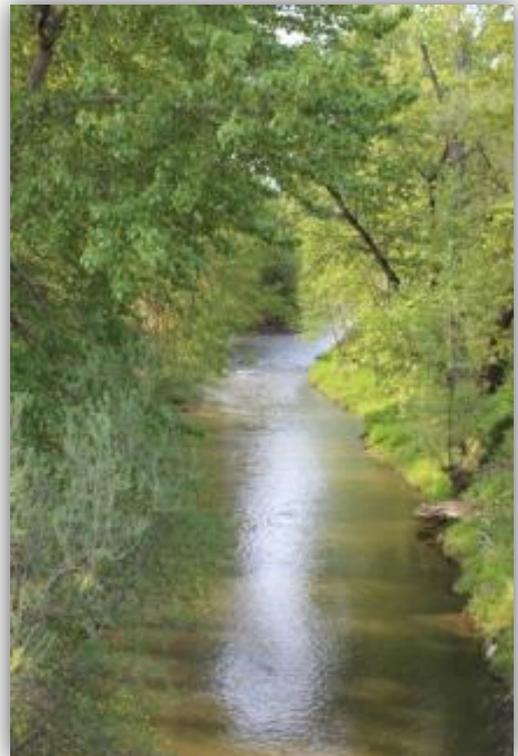
Stream name: _____
Downstream confluence: _____
Upstream confluence: _____
Township, Range, Section, Taxlot: _____
Riparian area size (ft²): _____
Rebate Amount: _____

Rebate Program Information

Jackson Soil & Water Conservation District (JSWCD) offers a \$115 per 1000 ft² up to 1 acre (43,560 ft²) rebate to remove invasive plant species from riparian areas and replant those areas with native trees and shrubs. The landowner is responsible for all project costs above the rebate amount. Please read the eligibility criteria, terms and conditions, and project requirements below and follow the instructions carefully. Work with JSWCD staff during the development of your project to ensure that you meet all incentive requirements. JSWCD is a non-regulatory agency that promotes voluntary conservation practices primarily on private lands.

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Why Restore Riparian Vegetation?

Riparian areas are vegetated areas found between aquatic and terrestrial habitats. The vegetation along streams, wetlands, and lakes can all be considered riparian vegetation. Often the plant species found here are adapted to living in this zone of fluctuating water availability. Healthy riparian zones provide a variety of benefits for water quality, wildlife (both aquatic and terrestrial), and people. These areas are distinguished as “buffers” because of the role they play in filtering pollutants and absorbing flood water, as well as providing food and shelter for wildlife. More specifically, riparian zones:

- Stabilize streambanks with plant roots
- Provide corridors for migrating wildlife
- Help maintain water tables
- Play a role in terrestrial and aquatic food webs
- Provide shade to maintain water temperatures for aquatic organisms
- Improve water quality by trapping sediment which can be harmful to aquatic animals
- Slow flood waters, thereby protecting waterfront properties



Figure 1: Confluence of Emigrant and Walker Creek (source: Dan Vandyke, ODFW).

By planting native trees and shrubs in the riparian zone on your property, you are providing numerous benefits to the landscape around your property. Native species improve habitat for birds, mammals, fish and other aquatic animals, and protect the water quality of our beautiful streams.

Eligibility Criteria

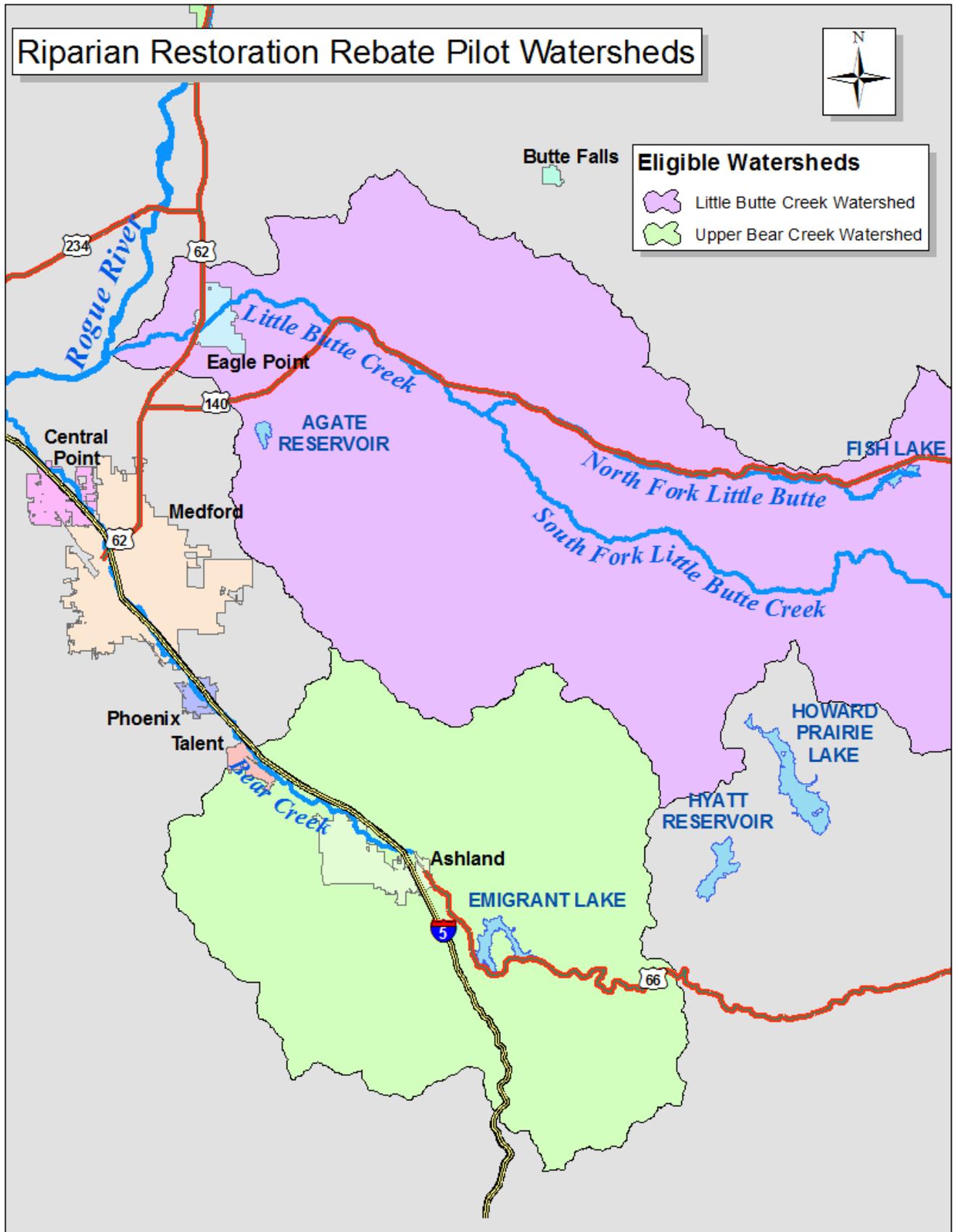
- Project area is 1 acre or less in size and located adjacent to a stream within the Little Butte Creek or Upper Bear Creek pilot watersheds (see map on page 3).
- Project area needs riparian restoration, including: removal of invasive and/or non-native plant species, establishment of native vegetation, or planting bare riparian areas.
- Project location does not include severely eroded stream banks or require in-stream engineering; consult with JSWCD for alternative funding opportunities.
- Applicant owns the land or has authorization to implement the project.
- Applicant has legal access to a source of water to irrigate the plantings.
- Applicant can demonstrate the ability to maintain the planting area for 5 years.

Riparian Restoration Rebate Pilot Watersheds



Eligible Watersheds

-  Little Butte Creek Watershed
-  Upper Bear Creek Watershed



Permits Required for Riparian Restoration

This permitting section includes riparian ordinances within the eligibility criteria of the Little Butte Creek and Upper Bear Creek pilot watersheds. Note: Each municipality is subject to county regulations as well as additional ordinances specified by the municipality. The applicant is responsible for obtaining all permits.

Vegetation Removal

Jackson County

8.6.4. A)

1) “Non-native vegetation may be removed and replaced with native plant species, subject to a landscape plan approved by Oregon Department of Fish and Wildlife (ODFW)”.

The Riparian Buffer Zone is 75 feet along Rogue River, and 50 feet along creeks in Jackson County.

For more information, see the Jackson County Ordinance <https://tinyurl.com/y8puvjn7>, page 13.

City of Ashland

18.3.11.050.A.1.d.

“Removal of non-native, noxious, and invasive vegetation and replacement with local native plant species is permitted. The act of removing non-native, noxious, and invasive vegetation shall not result in the removal of native vegetation. Local native plant species for both wetland and stream bank applications are identified on the City’s Local Native Plant Species List, and noxious and invasive vegetation approved for removal is identified on the City’s Prohibited Plant List. Removal and mowing of blackberries shall occur before May 1 or after July 31 to protect nesting birds” (18.3.11) <https://tinyurl.com/ybeohlyf>.

"Non-Native, Noxious, and Invasive Vegetation Removal" and replacement with local native plant species, is exempt from regulation and would not require any permitting (or plan submittals).”

City of Talent

8-3H.230

“The Talent Zoning Ordinance requires that all vegetation replacement or management within fifty (50) feet of a creek be approved by Community Development. The Ordinance allows the removal of non-native vegetation like blackberries and other invasive/noxious species. Non-natives must be removed, but must be replaced with native species. This is accomplished through a landscape plan approved by the Oregon Department of Fish and Wildlife (ODFW) or the Oregon Department of Forestry (ODF)”. Refer to City of Talent’s “Project Information Checklist: Riparian Landscape Plan” <https://tinyurl.com/yaxue8zv>.



Figure 2: Volunteers work to remove blackberries along Wagner Creek (source: City of Talent).

Wildlife

To avoid disruption to nesting birds, ODFW's standard recommendation is to avoid removing vegetation between April 1 and July 31.

Herbicide, Pesticide, and/or Fertilizer Use

Manual weed control is always recommended.

If chemical control is necessary, follow the label instructions on the herbicide bottle. It is recommended to use products specifically for aquatic use and to hire a licensed contractor. Avoid spray drift and keep the herbicide out of the water; keep a three (3) foot spray buffer from the water's edge. Discharging pesticides within this three (3) foot buffer requires a National Pollutant Discharge Elimination System (NPDES) Permit from the Department of Environmental Quality (DEQ) <http://tinyurl.com/yawxxly7>.

The uses of certain herbicides are restricted along salmon-bearing streams; this should be indicated on the label.

City of Ashland

According to Ashland's Stream & Wetland Enhancement Guide, the City strongly recommends using mechanical methods of removal such as mowing and hand removal where effective. Working with a certified professional is recommended for working in a riparian and/or wetland area. This will ensure effective use with minimal impacts, that the products are labeled for aquatic use, and that all local, state, and federal laws are followed. <https://tinyurl.com/y9aexx2c>.

Water Rights

If you wish to use water from the stream to irrigate your native plantings, you must have an existing water right. If your water right does not extend to the riparian project area, you can apply for a water right transfer, or a "change in use" filed with the Oregon Water Resource Department (OWRD) (ORS 540.520).

You can also apply for a temporary transfer of water right or permit, granted up to 5 years, lasting long enough to establish the plants, as long as the senior water rights downstream are not impacted (ORS 540.523) <http://tinyurl.com/yaoepj92>.

You may also use your well to water the native plantings instead of using stream water, as wells can be used for non-commercial irrigation purposes up to half (0.5) an acre.

Make sure to check that irrigating plantings will not impact the amount of water available for your residential uses.

Local ODFW Contact Information

Central Point Rogue Watershed District Office
1495 E Gregory Rd
Central Point, OR 97502
Phone: 541-826-8774



Figure 3: Pesticide product label (source: EPA).

Local OWRD Contact Information

10 S Oakdale, Room 309A
Medford, OR 97501
Phone: 541-774-6187

Planting Instructions

Plant Selection

JSWCD requires that riparian areas be planted with native vegetation. See *Appendix A* for a list of native plants based on ecosystem site and function. To increase planting survival, larger container stock is recommended.

Planting Densities – We recommend planting new vegetation such that, combined with existing native vegetation, the area has a plant every 64 ft², or 8ft. spacing between plants. Smaller trees and shrubs may be planted closer together depending on species. See *Appendix B* for more information on specific plant species. For example, a 1,000 ft² riparian area would have approx. 16 plants. Use a mixture of shrubs and trees. See *Appendix C* for an example planting plan.

Plant Communities – Complex riparian forests offer greater ecosystem benefits. Healthy riparian vegetation has many components; tall trees with larger leaves cast large shadows that keep stream temperatures low, low shrubs with dense root mats stabilize stream banks, and successional understory

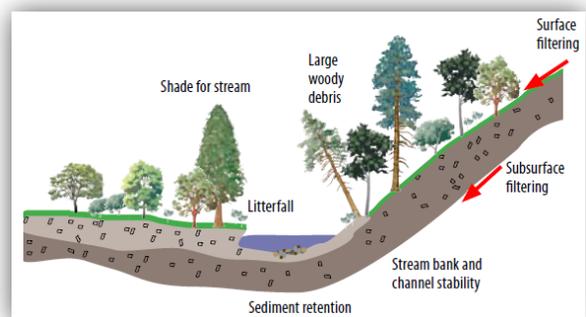


Figure 4: Communities of plants in a riparian area provide a variety of benefits (source: OSU Extension).

trees grow to replace older overstory trees that will eventually die and fall. When planning your project, assess what existing native vegetation you have and fill in the gaps you're missing. Plant more overstory and understory trees if all you have is a blackberry hedge, or focus on shade tolerant understory trees and shrubs if you have many large, healthy trees. Riparian buffer widths can vary by site. Your JSWCD representative will assist you with establishing a buffer width.

Planting Timing and Site Preparation – A layer of mulch or straw over the planting site can also reduce the risk of erosion and suppresses weeds. Each planting location should have a 2' to 3' radius clear of grass and/or competing vegetation. Fall planting is favorable for sites above the seasonal high water mark. Spring planting is favorable for sites at risk for inundation and erosion during winter storms.

Bareroot Seedlings – Open a hole or slit deeper than the root size to be planted to accommodate the root system with all roots pointing down (no "J" or "L" shaped roots). Plant seedlings slightly deeper than

they grew in the nursery (indicated by a change in bark characteristics) with roots naturally positioned. Do not twist or bunch roots. While holding the tree in an upright position, at the correct depth, bring loose, moist soil in around the root system. Do not let dry soil or surface litter fall into the hole. When the hole is filled, pack the moist soil down firmly. No roots should be exposed or foliage covered.

Plugs – Open a hole and place plug in hole at the same depth as grown in the container. Place moist soil around the plug and pack. Firm up soil completely around plug to remove any air pockets. Keep the root crowns ½” above ground.

Un-rooted Cuttings – For un-rooted willow, cottonwood, and dogwood cutting and whips, open a hole or slit deep enough to allow cuttings to be inserted so at least 1/2 - 2/3 of the cutting length is below ground. Insert cutting vertically with buds pointing up, insuring that one to three buds remain above ground. Firm the soil around the cutting so good contact with the soil is obtained.

Containerized – Dig a hole at least 50 percent wider than the container. Plant the root ball top at or just below natural ground level. Root-bound plants should have the root system slit and flared out over a mound of soil in the planting hole. Cut off any long roots before planting. Refill hole with soil and pack well to remove air-pockets. If available, water the plant. Prune off diseased or damaged branches, suckers, etc. To increase planting survival, larger container stock is recommended.

Plant Protection Instructions

Pre-Planting Protection – Keep seedling roots moist at all times after removal from shipping packages or heel-in trench. At the field site store seedlings in the shade or under a reflective space blanket. Do not use canvas to protect seedlings from solar heating. Use a suitable container (bucket, bag, or planting tray) for carrying the trees during the planting operation. Keep wet material around roots to prevent their damage through exposure. Never



Figure 5: Newly planted trees and shrubs typically need some sort of protection from animals that could browse new foliage (source: JSWCD).

carry a handful of trees exposed to the sun and wind. Take one tree at a time from the container and plant it immediately. Trim excessively long roots with a sharp hatchet, machete, shears, or scissors. Do not tear or rip roots.

Post-Planting Protection – For individual plants, surround trees with tree tubes or mesh fencing to prevent browsing damage. In large plantings near livestock or frequent herbivorous wildlife traffic, use temporary electric fencing to control access to the planting site. Control competing vegetation for at least 5 years, using one or more of the following methods:

- Hand or Mechanical - Use a hoe, shovel, brush cutter or chainsaw to control all competing vegetation in the immediate area (4 ft. minimum diameter) of the seedling. Repeat as necessary until trees are free to grow.
- Chemical - Apply herbicides according to label directions. Consult a local weed specialist for rates, timing and restrictions. It is recommended to use products specifically for aquatic use and to hire a licensed contractor for application. Repeat as often as needed to control competing vegetation.
- Mulch - Spread mulch material (paper, plastic, geotextile, etc.) around the base of seedling for a minimum of 1.5 ft. radius around the seedling.

Irrigation Instructions

Hand water by buckets or hoses for smaller plantings. Use drip or micro-spray systems for larger plantings. Fit drip irrigation systems with hose bibs and connect them to standard household hydrants when feasible. In locations where distance makes watering from domestic sources unfeasible, connect to pressurized agricultural irrigation systems. Do not use flood irrigation to water plants. If none of these options are available, consult the Watermaster's office

(see Permitting section above) to see about obtaining a temporary water right from the stream. Water for a minimum of 5 years. Water deep and infrequently to promote deep root growth. In the first 2 years, water 1 to 3 times per week. Consult plant specific information on how much water each species needs per irrigation cycle.



Figure 6: Drip irrigation is the most water efficient way to irrigate newly planted trees and shrubs (source: JSWCD).

References

- Tree/Shrub Establishment, Conservation Practice Job Sheet 612, NRCS, 2006
- A Guide to Riparian Tree Planting in Southwest Oregon, Oregon State University Extension, 2007
- Herbaceous Weed Control, Code 315, NRCS, 2015
- Managing Himalayan Blackberry in Western Oregon Riparian Areas, Oregon State University Extension, 2006
- Weed Control in Natural Areas in the Western United States. Weed Research and Information Center, University of California, 2013
- Chapter 8: Dimensional Standards, Measurements, and Adjustments, Jackson County
- Chapter 18.3.11:Water Resources Protection Zones (Overlays), City of Ashland
- Project Information Checklist: Riparian Landscape Plan, City of Talent
- Stream & Wetland Enhancement Guide, City of Ashland, 2015
- Oregon Water Resource Department, Agency Forms. Retrieved on 7/31/2017

Checklist

Part 1 – Pre-application project assessment and design

- Read the entire application.
- Obtain a signature authorization from the property owner (if applicant is not property owner).
- Request a site visit with JSWCD staff for an assessment of the potential project area.
- Create a layout of the project (using the grid above or other mapping tool).
- Determine the invasive species to be removed, the plants to be planted and to what densities, and how to protect and water them.
- Sign and submit this application to JSWCD.
- Receive a countersigned copy of the application.

Part 2 – Implementation (Can be completed by the landowner or a qualified contractor)

- Obtain any permits/ landscape plans necessary to complete the project. Make copies to submit to JSWCD.
- Remove invasive plants per recommendations above.
- Plant native vegetation per recommendations above.
- Save all receipts to submit to JSWCD. Copies of receipts are acceptable.

Part 3 – Post-Installation inspection and submission for rebate

- Request a post-implementation inspection from JSWCD.
- Review the implementation with JSWCD staff and confirm that the implementation meets or exceeds the objectives in this application.
- Provide JSWCD staff with all invoices and receipts to confirm the total cost of the project.
- Complete a W-9 form to submit with this application.
- Submit this application for a rebate payment along with the W-9 form.

Project Timeline & Additional Requirements

Terms & Conditions

- **All rebate funds are reimbursements to the landowner and will be paid out after the project is complete.**
- The amount of the rebate will not exceed the total project cost. The applicant will provide receipts and invoices for the project to demonstrate that the rebate amount does not exceed the total cost of the project.
- Projects must comply with any federal, state, local, or other ordinances that may apply.
- Only projects with a minimum cost of \$100 may apply.
- JSWCD offers a \$115 per 1000 ft² up to 1 acre (43,560 ft²) of riparian restoration. JSWCD staff will determine the size of the project area.
- Rebate funds can be used for invasive plant removal, herbicide application, planting stock, and irrigation supplies. Landowners can use rebate funds to pay contractor costs for these services.
- All applicants must complete the application in consultation with JSWCD. The applicant (or landowner if different), a JSWCD representative, Jackson County Development staff, Oregon Dept. of Fish & Wildlife or Oregon Dept. of Forestry staff (depending on project location), and the JSWCD District Manager must sign this application before the project may begin.
- JSWCD staff will perform a pre- and post-project inspection to determine project eligibility, specify design requirements, and approve the project for reimbursement after project completion.
- The applicant permits JSWCD to collect photographs of the project prior to and after installation to document the project. Photos may also be used for promotional or educational purposes.
- All projects must be completed within 2 years of application approval. Projects will be inspected every year for 5 years after completion to monitor new plant survival and weed regrowth.
- No rebate reimbursements will be disbursed prior to project completion as determined by JSWCD staff.
- All approved applicants will complete a W-9 form for tax reporting purposes.
- JSWCD does not endorse any particular manufacturer, contractor or product in promoting this program. JSWCD does not warranty any materials or services used during the implementation of this project.
- JSWCD offers rebate programs on a first come first served basis, contingent upon available grant funds. The approved JSWCD annual budget and JSWCD staff determine the availability of funding.
- Riparian restoration projects that qualify for financial assistance from other programs or agencies cannot apply for this rebate program. Projects that do not qualify for this rebate program may be eligible for other financial assistance programs. JSWCD staff can assist landowners with identifying these other funding sources and, where appropriate, assist the landowners with the planning and application process.

Project Requirements

- The riparian area subject to this application must be in need of riparian restoration, including but not limited to; removal of invasive and/or non-native plant species (including landscaping/crops/etc.), establishment of native vegetation, or planting bare soil areas with native vegetation.
- The project area subject to this application must not need additional restoration work, including but not limited to; major erosion control measures, stream channel modification, removal of dams, bridges, or other infrastructure, or other bank stabilization measures. JSWCD staff will make this determination.
- Applicants will use live native plants for replanting, and use new or like new materials for mulching, irrigation and plant protection.
- Applicants will follow the guidance outlined in this application for all vegetation removal and replanting. Applicants must seek approval from JSWCD staff for any changes to the vegetation removal and planting plan above.

Project Design Agreement

Signatures on the next page indicate that the Applicant has reviewed the above plan with a Jackson Soil and Water Conservation District (JSWCD) representative, assumes all responsibility for this plan, and agrees to carry it out to the best of their ability. Any changes to this plan will be addressed with JSWCD prior to implementation. The Applicant also indicates that they indemnify and hold harmless JSWCD, its officers, directors, agents and employees, against any and all losses, claims (including third-party claims), damages and expenses, including reasonable and necessary attorney's fees, to the extent any such losses, claims, damages and expenses are due to the acts or omissions of the Applicant, its officers, directors, agents and employees. The Applicant shall have no obligation to indemnify JSWCD should any such losses, claims, damages and expenses result, in whole or in part, from willful misconduct or gross negligence of JSWCD, its affiliates, officers, directors, agents and employees.

Authorizing Signatures

_____	_____	_____
Applicant Signature	Print Name	Date
_____	_____	_____
Landowner Signature (if different than Applicant)	Print Name	Date
_____	_____	_____
JSWCD Representative Signature	Print Name	Date
_____	_____	_____
ODFW/ ODF Representative Signature	Print Name	Date
_____	_____	_____
Local Jurisdictional Authority (City/County) Signature	Print Name	Date
_____	_____	_____
JSWCD District Manager Signature	Print Name	Date

Completion Report and Rebate Request

Total riparian vegetation restored: _____ ft^2 Payment Issued: _____
Rebate amount per ft^2 \$ _____ Issued By: _____
Rebate total: \$ _____

Signatures below indicate that the Applicant has completed installation of the project as outlined in this application according to the below terms, conditions, and project requirements. JSWCD agrees to release an incentive for the above total within 30 days of the signing of this agreement.

_____	_____	_____
Applicant Signature	Print Name	Date
_____	_____	_____
Landowner Signature (if different than Applicant)	Print Name	Date
_____	_____	_____
JSWCD Representative Signature	Print Name	Date
_____	_____	_____
JSWCD District Manager Signature	Print Name	Date

Appendix A: Plant Lists

Key		
Canopy Tree (C)	Understory Tree (U)	Shrub (S)

Native Deer-Resistant Riparian Plants



California Black Oak (C)



Ocean Spray (S)



Red-osier Dogwood (S)



Snowberry (S)



Oregon Grape (S)



Vine Maple (U)



Douglas Spirea (S)



Oregon Viburnum (S)



White Oak (C)



Incense Cedar (C)



Ponderosa Pine (C)



Mockorange (S)



Red Flowering Currant (S)

Key
Canopy Tree (C) Understory Tree (U) Shrub (S)

Native Drought - Tolerant Riparian Plants



Bear Brush (S)



Coastal Willow (S)



Mountain Mahogany (S)



Osoberry (S)



Bitter Cherry (U)



Snowberry (S)



Naked-hip Rose (S)



Pacific Ninebark (S)



Blue Elderberry (U)



Madrone (C)



Nootka Rose (S)



Ponderosa Pine (C)



Buckbrush (S)



Manzanita (S)



Ocean Spray



Vine Maple (U)



Cascara Sagrada (U)



Mockorange (S)



Oregon Grape (S)



White Oak (C)

Key
 Canopy Tree (C) Understory Tree (U) Shrub (S)

Native Flood-Tolerant Riparian Plants



Big-leaf Maple (C)



Snowberry (S)



Nootka Rose (S)



Pacific Willow (U)



Blue Elderberry (U)



Douglas Hawthorn (U)



Oregon Ash (C)



Ponderosa Pine (C)



Cascara Sagrada (U)



Douglas Spirea (S)



Oregon Viburnum (S)



White Oak (C)



Chokecherry (U)



Red Elderberry (S)



Osoberry (S)



Coastal Willow (S)



Mockorange (S)



Pacific Ninebark (S)

Key
Canopy Tree (C) **Understory Tree (U)** **Shrub (S)**

Native Riparian Plants for Erosion Control



Big-Leaf maple (C)



Manzanita (S)



Oregon Grape (S)



Red Alder (C)



Blue Elderberry (U)



Naked-hip rose (S)



Pacific Dogwood (S)



Red-osier Dogwood(S)



Chokecherry (U)



Nootka Rose (S)



Pacific Ninebark (S)



Serviceberry(S)



Coastal Willow (S)



Ocean Spray (S)



PacificRhododendron (S)



Woods Rose (S)



Douglas Spirea (S)



Oregon Ash (C)



Pacific Willow (U)

Key
Canopy Tree (C) Understory Tree (U) Shrub (S)

Native Riparian Plants to Attract Birds



Blue Elderberry (U)



Douglas Spirea (S)



Oregon Grape (S)



Cascara Sagrada (U)



Mockorange (S)



Oregon Viburnum (S)



Chokecherry (U)



Naked-hip Rose (S)



Pacific Ninebark (S)



Snowberry(S)



Nootka Rose (S)



Red Flowering Currant(S)



Douglas Hawthorn (U)



Ocean Spray (S)



Red-osier Dogwood(S)

Native Shade-Tolerant Riparian Plants

Key		
Canopy Tree (C)	Understory Tree (U)	Shrub (S)



Bear Brush (S)



California Hazelnut (S)



Mockorange (S)



Pacific Ninebark (S)



Big-leaf maple (C)



Cascara Sagrada (U)



Oregon Ash (C)



Red Elderberry (S)



Bitter Cherry (U)



Coastal Willow (S)



Oregon Grape (S)



Red-osier Dogwood (S)



Blue Elderberry (U)



Snowberry (S)



Oregon Viburnum (S)



Vine Maple (U)



Buckbrush (S)



Douglas Hawthorn (U)



Osoberry (S)



Woods rose (S)

Key
Canopy Tree (C) Understory Tree (U) Shrub (S)

Native Sun-Tolerant Riparian Plants



Bear Brush (S)



California Black Oak (C)



Douglas Hawthorn (U)



Big-leaf maple (C)



Cascara Sagrada (U)



Douglas Spirea (S)



Bitter Cherry (U)



Chokecherry (U)



Golden Currant (S)



Blue Elderberry (U)



Coastal Willow (S)



Incense Cedar (C)



Buckbrush (S)



Snowberry (S)



Madrone (C)



Manzanita (S)



Ocean Spray (S)



Western Serviceberry (S)



Mockorange (S)



Oregon Ash (C)



White Oak (C)



Mountain Mahogany (S)



Oregon Grape (S)



Naked-hip rose (S)



Osoberry (S)



Nootka Rose (S)



Ponderosa Pine (C)

Key
Canopy Tree (C) Understory Tree (U) Shrub (S)

Native Pollinator-Friendly Riparian Plants



Deer Brush (S)



Oregon Grape (S)



Golden Currant (S)



Red Flowering Currant (S)



Mockorange (S)



Ocean Spray (S)

Appendix B: Plant Species Information

Type	Common Name	Scientific Name	Mature Size	Bloom [Deciduous/Evergreen]
Canopy Tree	Big-leaf Maple	<i>Acer macrophyllum</i>	80 feet	April-May [D]
	California Black Oak	<i>Quercus kelloggii</i>	32-82 feet	N/A [D]
	Incense Cedar	<i>Calocedrus decurrens</i>	80-120 feet	January [E]
	Madrone	<i>Arbutus menziesii</i>	20-100 feet	March-May [E]
	Oregon Ash	<i>Fraxinus latifolia</i>	60-80 feet	April-May [D]
	Ponderosa Pine	<i>Pinus ponderosa</i>	90 x 3 feet	April - June [E]
	Red Alder	<i>Alnus rubra</i>	100 x 1.5 feet	Spring [D]
	White Oak	<i>Quercus garryana</i>	100ft	March-May [D]
Understory Tree	Bitter Cherry	<i>Prunus emarginata</i>	4-12 ft (shrub)/ 30 feet (tree)	April-May [D]
	Blue Elderberry	<i>Sambucus nigra</i>	6-13 feet	May-Sept [D]
	Cascara Sagrada	<i>Rhamnus purshiana</i>	30 feet	May [D]
	Chokecherry	<i>Prunus virginiana</i>	30x10-20 feet	April-July [D]
	Douglas Hawthorne	<i>Crataegus douglasii</i>	35ft	Spring [D]
	Pacific Willow	<i>Salix lucida</i>	15-45 feet	N/A [D]
	Vine Maple	<i>Acer circinatum</i>	10-20 feet	N/A [D]
Shrub	Bear Brush	<i>Garrya fremontii</i>	5-15 feet	Jan - May [E]
	Buckbrush	<i>Ceanothus cuneatus</i>	3-12 feet	March-May [E]
	California Hazelnut	<i>Corylus cornuta</i>	3-50 feet	Jan-March [D]
	Coastal Willow	<i>Salix hookeriana</i>	6-26 feet	March-April [D]
	Deer Brush	<i>Ceanothus integerrimus</i>	3-18 feet	Spring-Fall [D]
	Douglas Spirea	<i>Spiraea douglasii</i>	2-7 feet	June-Sept [D]
	Golden Currant	<i>Ribes aureum</i>	3-10 feet	March-June [D]
	Manzanita	<i>Arctostaphylos</i> variety	10 feet (varies)	April-June [E]
	Mockorange	<i>Philadelphus lewisii</i>	4-12 x 3-9 feet	May-July [D]
	Mountain Mahogany	<i>Cercocarpus montanus</i>	15 feet	May-July [E]
	Naked-hip Rose	<i>Rosa gymnocarpa</i>	1-4 feet	May-July [D]
	Nootka Rose	<i>Rosa nutkana</i>	1-9 feet	Aug-Sept [D]
	Ocean Spray	<i>Holodiscus discolor</i>	6-20 feet	Summer [D]
	Oregon Grape	<i>Berberis</i> variety	3-10 feet	March-May [E]
	Oregon Viburnum	<i>Viburnum ellipticum</i>	3-11 feet	Spring-Summer [D]
	Osoberry	<i>Oemleria cerasiformis</i>	10-15 feet	Late Winter [D]
	Pacific Dogwood	<i>Cornus nuttallii</i>	40 feet	May-June [D]
	Pacific Ninebark	<i>Physocarpus capitatus</i>	6-13 feet	April-July [D]
	Pacific Rhododendron	<i>Rhododendron macrophyllum</i>	6-12 feet	Spring-Summer [E]
	Red Elderberry	<i>Sambucus racemosa</i>	10-20 feet	April-July [D]
	Red Flowering Currant	<i>Ribes sanguineum</i>	10 feet	March-June [D]
	Red-osioer Dogwood	<i>Cornus sericea</i>	4.5-20 feet	June-Aug [D]
	Snowberry	<i>Symphoricarpos albus</i>	19.5 feet	May-July [D]
	Western Serviceberry	<i>Amelanchier alnifolia</i>	23 feet	April - June [D]
	Woods Rose	<i>Rosa woodsii</i>	3-9 feet	June-Aug [D]