Conyers Creek Habitat Diversification and Enhancement

Private Forest Accord Grant - Fall 2024
Solicitation

Columbia Soil and Water Conservation District

Malyssa Legg
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Application Form

Project Information

Collaborate Feature

To invite others to collaborate on a request, use the "Collaborate" button at the top of the page.

Enter the collaborator's email address, set their permission level (View, Edit, or Submit), include a message with instructions, and click "Invite." You can revoke access at any time.

The collaborator will receive an email with your message, a link to log in, and instructions to create a password if it's their first time. Once logged in, they can access the request under the "Collaboration Requests" tab on their dashboard and follow your instructions.

Collaborate Video Tutorial
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Access the most current *2024 Grant Guidelines here.*

Project Type*

Select all the apply. Examples may be found on the PFAGrants.com webpage.

Implementation
Planning

Project Name/Title*

Project Names/Titles can be no more than 80 characters, including spaces.

Conyers Creek Habitat Diversification and Enhancement

Total funding requested from ODFW?*

The requested funding amount from ODFW rounded to the nearest dollar. This amount does not include any matching funds you may be providing for the project. Ensure that Exhibit B: Budget, matches this funding request.

$572,242.00

Total Project Cost*

What is the total cost for this project including all project funds (i.e. ODFW funding requested, matching funds, other contributing funds, etc.).

$695,101.00

Project Start Date*

The estimated start date of ODFW funding being used.

Depending on the size and complexity of the project, it is recommended that the start date for work on approved projects should not be earlier than October 1st, 2025.

08/01/2025

Project End Date*

When ODFW funding will be completely used. Four year project timelines are encouraged.

12/31/2028

County of Project*

Select the primary county the project is to take place in.

Columbia County

Impacted Counties

Select any additional counties impacted by the proposed project.

Columbia County

Assessor Parcel Numbers or TAX number

May be the project center parcel or of every parcel involved in the project. If listing multiple, separate by a comma

7418-00-01602, 7418-00-01601, 7418-00-01606, 7418-00-01604, 7417-00-01305

HUC-10 Project Location*

List the most centered HUC-10 code that your project directly impacts. HUC stands for Hydrologic Unit Code. The unique code identifies watersheds.

Click here to identify your HUC-10 - ***The webpage and layers bar will take a few minutes to load. Zoom level 10 will show HUC-10 codes. Only type in the 10-digit code that follows the "10-" signifier.***

1708000305

Impacted Basin*

Using this map, state what basin your project takes place in. **Example) North Coast Basin 1**

North Coast Basin 1

Latitude (Decimal Degrees)*

Project center point. Enter up to 6 digits right of the decimal.

46.088252

Longitude (Decimal Degrees)*

Project center point. Enter up to 6 digits right of the decimal.

-123.21831

What is the ownership of the project site(s)?*

Please select all that apply.

Private Land

Landowner Information*

Does the project take place on land owned by the applicant?

No

Does the Project Propose Ground Disturbance*

Including any soil disturbance, capital improvement, engineering, site grading, or other construction.

Yes

Advancement Funding*

Does the project plan to request an advance payment?

No

Post-project maintenance*

Is this project requesting funding for post-project maintenance? *Note: Post-project maintenance is not a requirement for this funding round.*

Yes

Is Match Being Provided?

Match funding is not a requirement, and both cash and in-kind contributions are acceptable.

Yes

Herbicide*
Does your project include the use of herbicide?

Yes

Project Contact Information

Organization Type Applying*
Please choose the category that best describes your organization.

Soil Conservation District

Fiscal Sponsors*
Is your project using a fiscal sponsor to apply?

No

Applying Organization Name*
Columbia Soil and Water Conservation District

Lead Organization Federal Tax ID Number*
93-0988772

Physical Address*
Of the applying organization.

35285 Millard Road, Saint Helens, OR 97051

Project Manager Title*
Resource Conservationist

Project Manager Name*
Crystalyn Bush

Project Manager Email Address*
crystalyn.bush@columbiaswcd.com

Project Manager Direct Phone Number*
This will be used to contact the organization for any application related questions.

503-433-3205

Project Manager Extention
If applicable, list the extension for the Project Manager phone number

108

Project Team Qualifications*
Summarize the project team's qualifications, experience, and capacity to execute the proposed tasks, including a brief statement for each team member. Provide examples of similar projects the organization has completed.

Crystalyn Bush, Project Manager - Crystalyn has worked for the Columbia SWCD for 8.5 years. She has developed, managed, and overseen numerous types of grant-funded projects including noxious weed treatment, planting, restoration, and outreach projects. In the summer of 2022, Crystalyn successsfully managed and oversaw an NRCS-funded fish passage project on Perkins Creek in Clatskanie, OR. Crystalyn has also played a support role in aspects of coworker's and partner's projects from survey and fish salvage, to drafting permit applications, to conducting post project monitoring. Crystalyn has experience with all aspects of project management including, but not limited to, budget management, permitting, contracting processes, stakeholder engagement, and grant reporting. She has worked successfully with many partners to develop and execute restoration projects.
Amber Kester, Project Support - Amber has worked for the Columbia SWCD for 4 years. Prior to her employment at the SWCD she worked for the Scappoose Bay Watershed Council for almost 10 years. She has extensive experience with weed management, native plantings, and propagation. In her role with the watershed council, she worked with partners to implement several large wood and planting projects. In this role she worked directly with landowners and partners to make decisions in the field that best serve all interests. She currently oversees the Columbia SWCD's small grant and volunteer programs, in which she manages a variety of restoration projects, outreach events, and provides support to other staff.
Jennifer Chavez, Outreach & Operations Coordinator - Jennifer has been responsible for creating the SWCD's outreach materials, and managing the SWCD's social media messaging for at least 5 years.
Waterways Consulting Inc. - The Columbia SWCD is working with engineers and a geomorphologist from Waterways. They have extensive experience with all types of in-stream habitat restoration projects. In just the last couple of years, Waterways has worked with the Columbia SWCD to design and execute the following types of projects: fish passage - culvert replacement and channel realignment, bio-engineered bank stabilization, and tidal wetland enhancement with large wood installation and grading.

Project Overview & Purpose

Project Abstract*

Provide a brief summary that outlines the essential details of the proposed project

Conyers Creek is a tributary of the Clatskanie River and habitat for several ESA-listed salmonid species, as well as other species of concern. Recovery plans identify lack of overwintering habitat as the primary tributary limiting factor for salmon in the Lower Columbia River watershed. This project will create and restore quality spawning and rearing habitat in Conyers Creek by undertaking the following activities: 1) Side channel re-engagement of Roaring Creek; 2) Off-channel habitat creation; 3) Installation of large wood structures to increase in-stream complexity and reduce erosion; 4) BDA installation in side-channel and off-channel areas; 5) Planting of riparian and floodplain areas with native plants and beaver forage species; and 6) Drain tile removal and upland wetland enhancement for water quality and amphibian habitat enhancement. Project partners include the Natural Resource Conservation Service, OR Dept. of Fish and Wildlife, and private landowners.

Project Overview*

In your response, please cover the following:

- **Project Summary:** Briefly describe the proposed project.
- **Project Location and History:** Outline the location, historical context, and relevant factors, including land use history.
- **Watershed and Resource Considerations:** Discuss other resource-related projects or issues within the watershed, such as forest health, wildfire risks, and water quality.
- **Habitat and Ecological Conditions:** Provide an overview of current habitat and ecological conditions.
- **Project Condition:** Describe the current state of the project, including public scoping and planning efforts.
- **Potential Challenges:** Identify any issues or conditions that may impact project completion.
- **Funding Necessity:** Explain why funding is crucial for the project's success.
- **Next Steps:** Detail any anticipated actions following project completion, if applicable.

Project Summary: Conyers Creek is a tributary of the Clatskanie River and habitat for several ESA-listed salmonid species as well as other species of concern like Pacific lamprey. The Oregon Department of Fish and Wildlife is actively working to reintroduce Lower Columbia River Chum into the Clatskanie watershed. One of their reintroduction sites is on Conyers Creek, just upstream of the project reach. Recovery plans identify lack of overwintering habitat as the primary tributary limiting factor for salmon in the Lower Columbia River watershed. Local plans and habitat surveys have noted a lack of large wood and complex pools in Conyers Creek, as well as a need for riparian enhancement. This project will create and restore quality spawning and rearing habitat in Conyers Creek by undertaking the following activities: 1) Side channel re-engagement of Roaring Creek; 2) Off-channel habitat creation; 3) Installation of large wood structures to increase in-stream complexity and reduce erosion; 4) BDA installation in side-channel and off-channel areas; 5) Planting of riparian and floodplain areas with native plants and beaver forage species; and 6) Drain tile removal and upland wetland enhancement for water quality and amphibian habitat enhancement. This project is focused on long term outcomes and climate resiliency in its appeal to beavers, focus on floodplain engagement, and planting considerations. The project site offers conditions favorable to restoration including a relatively wide and accessible floodplain void of infrastructure or structural constraints, a low channel gradient, easy access for equipment, and supportive landowners committed to restoration goals. The downstream landowners (the Gibbons) have signed a contract with the Natural Resource Conservation Service that covers many complimentary practices including riparian and wetland fencing, riparian and wetland plantings, weed control, and rotational grazing practices. The upstream landowners (the Hicks) have committed to donating logs and rootwads from their property.

Project Location and History: This project is located on Conyers Creek, a tributary of the Clatskanie River, which is contained within the Lower Columbia -Clatskanie River watershed. The project area is situated mid-watershed on Conyers where the predominant land use is rural residential. Upstream of the project area, where the stream gradient increases, the land use changes to commercial timberland. Lidar, ground observations, and antecdotal histories indicate that Conyers was once more of a braided complex of channels with a relatively wide and accessible floodplain. Historic logging practices, development, and land conversion have led to planform simplification and habitat degradation. Tree harvesting has removed many (if not all) of the large, old-growth trees that would have once contributed woody material to the stream. Riparian areas in the mid and lower parts of the watershed lack conifer species and are often devoid of trees at all, as native vegetation is crowded out by aggressive invasive species like Himalayan blackberry and Reed Canary Grass. Fields have been graded and drained for farming purposes and the stream has been pushed into an ever-incising channel. Residential development and road building have further exacerbated these problems by constricting the floodplain and consolidating upland flows, which are sometimes directed straight into the creek without any opportunity for natural filtration to occur.

Watershed and Resource Considerations: Conyers Creek is fed by two tributaries hosting drinking water reservoirs for the City of Clatskanie. These systems are dredged typically once a year. This often occurs in the summer leading to very turbid conditions in those tributaries and downstream Conyers Creek for up to a week. The Project Manager and ODFW Fish Biologist are in discussions with the City's Public Works Department to determine if a more ecologically-friendly maintenance plan can be implemented and how future restoration plans can help remediate this problem. Additionally, the Columbia SWCD is working to control and eradicate an infestation of Policeman's helmet (Impatiens glandulifera) on Conyers Creek. Policeman's helmet degrades riparian and wetland habitats by displacing beneficial native species, encouraging soil destabilization, and negatively impacting water quality through increased stream sediment inputs as a result of its very shallow and fragile root system. This invasive species is not currently known to exist anywhere else in the County.

Habitat and Ecological Conditions: Currently the stream is fairly incised throughout the project reach. There are relic side-channel and off-channel areas, which are generally only activated at high flows. Without natural flow obstructions to buffer and maintain transitional areas, the habitat and complexity that does exist is largely diminished in value. The lack of in-stream material like large wood results in ongoing channel incision, destabilization of streambanks, lack of in-stream habitat features, and loss of crucial spawning gravels. Surveys of Conyers Creek note a "Good" rating for the number of pools, but a "Poor" rating for the number of complex pools. This is another indicator of a lack of large wood in the system and a lack of natural large wood sources. Conyers Creek has been highlighted as a priority area for large wood installation by habitat surveys and the Lower Columbia River Watershed Council's Strategic Action Plan. There is ongoing evidence of beaver activity at the project site, including some attempts at dam construction with Alder as the building material. Unfortunately, the area is devoid of preferred forage species for beavers and current hydrologic conditions make it highly unlikely that dams can persist through winter flows. Finally, water quality is a big concern given the summer reservoir clean outs, lack of riparian vegetation in some areas, erosion of streambanks, and existence of field drainage systems.

Project Condition: The following project tasks have been completed to date: 1) Initial site assessments and topographic survey; 2) Hydraulic and Hydrologic Analysis; 3) Preliminary Designs; 4) Alternatives Analysis; 5) Consultations with ODFW fish and lamprey biologists as well as vegetation expert; 6) 60% designs, with technical memorandum and construction cost estimate; 7) Discussions with landowners and partners resulting in consensus on 60% designs; and 8) Initial planning discussions with permitting agencies and a tribal representative. Both landowners are in support of design plans and are actively working with the SWCD on match for the project.

Potential Challenges: The biggest hurdles to project completion are obtaining funding, working through any potential permitting issues that might arise, and managing the ongoing rise in the cost of goods and services.

Funding Necessity: Without funding this project is stalled and the funds spent on design services will be wasted. Funding is needed to pay for the following: 1) Finalized designs and engineering services (including

construction oversight); 2) A wetland assessment and cultural resources survey in support of permit applications; 3) Permit fees, 4) Construction; 5) Planting materials and labor; 6) Project management; and 7) Post-implementation aerial monitoring. The Gibbons have signed a 3 year contract with the Natural Resource Conservation Service that covers some of the planting, weed control, and fencing components of this project. Consequently, it is imperative we obtain funding for this project in time to implement in 2026 so that these activities can be coordinated for maximum efficiency and effectiveness.

Next Steps: Post project completion, the Columbia SWCD will monitor the site for at least 5 years. Monitoring will include aerial imaging of the site to document changes in planform, hydrology, vegetation, beaver activity etc... A post project snorkel and habitat survey will be completed at least once to document project effectiveness and note changes to habitat quality and quantity. We will also maintain and monitor plantings for at least 5 years post project to ensure an appropriate level of plant survival. Finally, the Columbia SWCD intends to feature this project using site tours and a professional video that can be uploaded to our website and played at outreach events. This project is a great example to highlight given all of the different restoration elements at play, the partnerships involved, and the marriage of restoration with farming and forestry practices. We are also working with some amazing landowners who will be able to speak about their connection to their land and the significance of the restoration work in a very compelling way.

Protections or Restrictions

Describe any protections or restrictions affecting the project in any form (such as easements, water rights, etc.).

None

Habitat Conservation Plan Covered Species (anticipated)*

Check all of the Habitat Conservation Plan Covered Species the Project will benefit. **All eligible projects must demonstrate uplift of at least one or more of the following species:**

Native salmon and trout (Oncorhynchus spp.) - Elaborate below.

Native Salmon or Trout Species (anticipated)

If applicable to your project, briefly specify the native salmon or trout species benefiting from the project, including Distinct Population Segments (DPS), or Evolutionary Significant Unit (ESU), as applicable.

Lower Columbia River Coho (Oncorhynchus kisutch) , Lower Columbia River Steelhead- Washington DPS (Oncorhynchus mykiss) , Lower Columbia River Chinook (Oncorhynchus tshawytscha), Columbia River Chum (Oncorhynchus keta), and Coastal Cutthroat Trout - Southwestern Washington/Columbia River DPS (Oncorhynchus clarki clarki)

PFA HCP Covered Species Benefit*

Describe how the project will generate some form of measurable ecosystem benefit(s) for one or more Habitat Conservation Plan (HCP) covered species.

In your response, please address the following points:

1. **Ecological Impact**: Explain the overall ecological impact of the project, highlighting the specific benefits for PFA HCP-covered species.
2. **Alignment with Mitigation Measures**: Describe how the project aligns with one or more of the seven major categories of restoration measures outlined in the Private Forest Accord Grant Program Guidelines.
3. **Long-Term Sustainability**: Discuss how the project will contribute to the long-term sustainability of the impacted HCP-covered species, extending beyond the grant period.
4. **Indirect Ecological Benefits**: Identify any indirect ecological benefits that may result from the project.

Ecological Impact: This project will have a direct and meaningful ecological impact on native ESA-listed salmon and trout species through the creation, restoration, and enhancement of in-stream and riparian habitat. The primary limiting factor for salmon in the greater Lower Columbia River watershed has been identified as overwintering habitat, meaning off-channel and side-channel areas as well as deep, and complex pools. This project will restore ~ 500 feet of side channel habitat by redirecting Roaring Creek back into its historic channel. Additionally, ~ 400 feet of off-channel area will be created in 2 separate locations, each ending in an alcove with installed rootwads. 8 log structures will be installed throughout the project reach, increasing in-stream channel complexity and roughness. Log structures will add complexity to pre-existing pools and encourage the formation of additional pools as well as greater floodplain engagement. The installation of Beaver Dam Analogue structures in the side-channel will add another beneficial habitat feature to the reach. BDAs slow water velocities and allow water to spread out on the floodplain, which results in improved water quality, fire resilience, groundwater recharge, and greater planform diversity. BDAs also form a natural in-stream barrier, resulting in pool formation and areas of slow moving water where juvenile fish can rear. Riparian plantings will provide long term shade and stability to the stream, improve water quality, and encourage beaver activity by increasing forage availability. The removal of the field drain tile and upland wetland enhancement activities should have an additional positive impact on water quality and increase ground water recharge, which promotes overall better climate resiliency for the reach and the biological life within it.

Mitigation Measures: This project aligns with Measure #1: "Restoring degraded habitat to natural condition/function or a condition likely to improve climate resiliency" through its focus on restoring historic habitat and planform diversity using bioengineering techniques and the anticipated climate resiliency benefits from slowing water throughout the reach, increasing floodplain engagement, and promoting greater beaver activity. One of the primary features of this project is the return of Roaring Creek to its historic side channel, which is key in restoring natural conditions as well as enhancing climate resiliency by increasing the overall area of wetted channel throughout the year. Installing in-stream structures throughout the reach and creating off-channel areas will further slow flow velocities and increase floodplain engagement. This will also result in greater groundwater recharge as more water will move into the hyporheic and subterranean levels as it sits longer on the landscape. Groundwater storage and recharge is crucial to climate resiliency as it provides a renewed source of cool water to streams during the warm, low flow summer months, and to plants during periods of drought. Finally, the planting plan incorporates several species of tree that are often found in the more southern region of the State. There is a recent history of local conifers struggling to establish at this site which indicates that other, more drought resilient species, might be more successful and provide greater climate resiliency in the long-term.

This project also aligns well with Measure #3: "Habitat enhancement" through the many ways in which it addresses habitat loss and degradation. The primary goal of this project is to increase, restore, and enhance habitat for ESA-listed salmonid species. Every element of this project can be considered habitat enhancement. This project will jumpstart natural processes that create and enhance habitat through bioengineering practices like large wood installation, BDA installment, bank laybacks, and riparian and floodplain planting. Anticipated outcomes include the restoration of side channel habitat, creation of off-channel areas, enhancement of pool habitat through large wood installation, formation of new pools as a result of large wood and BDA installation, increased floodplain engagement resulting in the formation of additional off-channel or wetland habitat, and improved upland conditions leading to enhanced water quality and groundwater storage - crucial to supporting life during periods of drought.

Long-Term Sustainability: We have planned for long term sustainability in all aspects of this project including the log structure design, the planting plan and beaver focused activities. Log structures will be buried in streambanks to ensure longevity on site. Burying structures reduces the chance of logs being washed away and ensures that they will continue to provide benefits to the site for as long as possible. Riparian plantings will prioritize installing native conifer tree species throughout riparian areas particularly in places that are lacking riparian vegetation. These will provide future shade and woody debris to the stream. The planting plan incorporates species that are more drought tolerant in locations where the water table is lower, for greater long term climate resilience. In floodplain areas, we will increase beaver forage by installing preferred species like willows and vine maple. Additionally, the installation of beaver dam analogue structures will further encourage beavers to stay on site, maintain and/or create new dams. The appeal to beavers is focused on the long term outcomes and success of the project. If we can make this area a place where beavers can thrive, they can continue to maintain and transform it ecologically in ways that benefit aquatic organisms, water quality, and climate resilience well into the future.

Indirect Ecological Benefits: Potential indirect ecological benefits of the proposed work include outcomes like: 1) Improved water quality in Conyers Creek and the Clatskanie watershed more broadly; 2) The growth of beaver populations and/or beaver activity in the area; 3) An expansion of stream associated wetlands on the southeastern side of Conyers Creek, 4) Diversification of native species in the greater area/region if plantings are successful and spread; and 5) Benefits from other landowners taking actions on their properties as a result of learning about conservation and restoration through this project and the associated outreach products.

ESA-listed Species Impact*

Identify any populations of Endangered Species Act (ESA) listed species that may benefit from your proposed project and any specific limiting factors for the population or species that the project would address. Please reference relevant State and/or Federal recovery plans in your response.

To assist in this process, you may use the NOAA Fisheries Species and Habitat App, available at NOAA Fisheries Species and Habitat App.

This project will directly benefit the following ESA-listed species: Lower Columbia River Coho (Oncorhynchus kisutch) , Lower Columbia River Steelhead- Washington DPS (Oncorhynchus mykiss) , Lower Columbia River Chinook (Oncorhynchus tshawytscha) , and Columbia River Chum (Oncorhynchus keta).

The ESA Recovery Plan for Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, Lower Columbia River Steelhead (NMFS, 2013) lists the following tributary ecological concerns (i.e. limiting factors) for these species in the Clatskanie watershed as: 1) Habitat Quantity, 2) Riparian conditions, 3) Channel Structure and Form; 4) Peripheral and Transitional Habitats (Side channel and wetland conditions); and 5) Peripheral and Transitional Habitats (Floodplain conditions). Secondary ecological concerns include: 1) Sediment conditions; 2) Water quality (Temperature); and 3) Water Quantity (Flow).

The Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead (ODFW, 2010) identifies the key tributary limiting factor for juvenile Coho, Chinook, and Steelhead in the Clatskanie watershed as "Physical habitat quality (impaired habitat complexity and diversity, including access to off-channel habitats)". It also lists secondary tributary limiting factors as 1) Hydrograph/water quantity (altered hydrology); 2) Physical habitat quality (excessive fine sediment); and 3) Water quality (elevated water temperature). All species share the same key and secondary limiting factors, although the Oregon Conservation Strategy only notes the lack of instream complexity as a limiting factor for Coho. Despite this, we can safely assume that all species would likely benefit from increased stream complexity given the multitude of benefits it produces including, but not limited to, decreased flow velocities, increased refuge and detrital inputs, reduced sedimentation from eroding streambanks, encouragement of pool and off-channel

habitat formation, and increased groundwater recharge leading to cooler water temperatures in summer months.
Coastal cutthroat trout (not specifically listed in these plans) also share these limiting factors, plus the threats from fish passage barriers and habitat fragmentation.

The proposed project would address all of these concerns and limiting factors noted above through the following proposed activities:
1) Placement of large wood structures in pre-existing pools and along sensitive streambanks for added complexity, refuge, and erosion control;
2) Re-engagement of a historic side channel and creation of off-channel/alcove habitat areas;
3) Installation of BDA structures in the Roaring Creek channel and off-channel area for habitat complexity, beaver habitat, and water quality improvement;
4) Installation of fencing on the Gibbons' property to prevent future livestock from accessing the riparian area;
5) Floodplain and riparian revegetation for increased shade and beaver forage; and
6) Removal of field drain tile and upland wetland restoration for water quality enhancement.

Relation to Conservation and Recovery Plans*

Does your project align with any species conservation and recovery plan(s)? If so, describe any limiting factors and priority actions identified in the recovery plans that will be addressed in your project, and cite the plan. URLs may be inserted. Do not attach plans to this application.

If applicable, include how your project furthers any goals or priorities from any other relevant Local, State, Federal, or Tribal plans.

This project is in alignment with numerous federal, state and local recovery plans. The following notes the relevant limiting factors and recommended priority actions associated with each plan, that are addressed by the scope of work in this proposed project:

ESA Recovery Plan for Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, Lower Columbia River Steelhead (https://repository.library.noaa.gov/view/noaa/16002):
Limiting Factors: 1) Habitat Quantity, 2) Riparian Condition, 3) Channel Structure and Form, 4) Side channel and wetland condition, 5) Floodplain condition; 6) Sediment conditions; 7) Water quality (Temperature), and 8) Water quantity (Flow).
Recommended Priority Actions: 1) Restore degraded off-channel habitats; 2) Streamline delivery of large wood to restoration sites; and 3) Restore degraded riparian areas through plantings and fencing.

Lower Columbia River Conservation and Recovery Plan for Oregon Populations of Salmon and Steelhead (ODFW, 2010): (https://doc-files-1310542374.cos.na-siliconvalley.myqcloud.com/3419f8e1683ac0bcb51c2ded9bbf7447.pdf?q-sign-algorithm=sha1&q-ak=AKIDHPJ2jXDxZz94mGrCMJ1UjjV3PXPOH2aM&q-sign-time=1727133456;1727133576&q-key-time=1727133456;1727134356&q-header-list=&q-url-param-list=&q-signature=2c6f3caae08d58ad60f3c09902db146d2bd4dd74)
Recommended Priority Actions: 1) Address impaired habitat complexity and diversity, including access to off-channel habitats, due to land use practices; 2) Address altered hydrology due to upslope land uses; 3) Address excessive fine sediment due to rural roads and land uses; and 4) Address elevated water temperature due to land uses that impair riparian condition or reduce streamflows.

Oregon Conservation Strategy (https://www.oregonconservationstrategy.org/overview/):

Limiting Factors: 1) Stream complexity, 2) Water quality, 3) Riparian Condition, 4) Alterations of hydrology and watershed function, and 5) Habitat fragmentation.
Recommended Priority Actions: Maintain or restore aquatic and riparian habitat. Continue ongoing restoration efforts involving landowners, tribes, and agency partners.

Lower Columbia River Watershed Council Strategic Action Plan (LCRWC, 2020) and Lower Columbia - Clatskanie River Habitat Assessment (Boswell, 2010):
Limiting Factors: Both documents note Conyers Creek as a priority for large wood placement and riparian enhancement. The Boswell assessment rated Conyers Creek as "Good" with regards to the number of pools, but "Poor" with regards to the number of complex pools.

Coastal, Columbia, and Snake Conservation Plan for Lampreys in Oregon (ODFW, 2020): (https://www.dfw.state.or.us/fish/CRP/docs/coastal_columbia_snake_lamprey/CPL%20-%20Final%202-14-20.pdf)
Threats: 1) Water quality (high water temperature, sedimentation), 2) Physical habitat (stream and floodplain degradation)
Management Strategies: 1) Education and outreach; 2) Protect and restore habitat.

Community Impact*

Describe how your project will impact the community. In your response, please address the following points:

1. **Definition of Local Community**: Define what "local community" means in the context of your project.
2. **Community Impact**: Discuss any anticipated positive or negative impacts on the local community as a result of the project.
3. **Community Support and Engagement**: Describe how the project has worked to build community support or outline plans for future engagement with the community.

Definition of Local Community: The communities that pertain to this project include the greater City of Clatskanie, rural landowners along Conyers Creek, and the local farming/homesteading community.

Community Impact: This project will positively impact all residents of the City of Clatskanie through restoration activities that promote improved water quality. Every aspect of this project is expected to contribute to better water quality in Conyers Creek, which will in turn positively impact water quality in the Clatskanie River, where many residents recreate. Swimming, wading, fishing, and irrigation are all activities that occur regularly along the Clatskanie that would be enhanced through improved water quality.

Rural residents living downstream of the project area will benefit more significantly from enhanced water quality in Conyers Creek as well as from a reduced risk of flooding due to project activities. Project activities such as side channel re-engagement, off-channel habitat creation, installation of large wood, and bank shaping will all contribute to increased on-site water storage capacity and subsequent reduced flow velocities. Increasing overall channel length and promoting greater floodplain engagement will reduce flooding risks for downstream neighbors as flood capacity is increased throughout the project reach. Indirect benefits to this community also include reduced flow velocities in downstream areas which could slow or lessen erosional processes.

The primary benefit to the local farming community will be through our outreach and educational efforts. This project will serve as a model for how conservation/restoration and farming practices can be complimentary and even mutually beneficial. Project site tours, the commissioning of a professional video, and online project updates will provide members of this community with the opportunity to learn about how

conservation can support farming practices through benefits like increased groundwater storage, improved water quality, and reduced erosion of sensitive streambanks.

Community Support and Engagement: There is widespread support for conservation efforts and this project in particular. Staff from the Public Works Department of the City of Clatskanie is working with project partners to reevaluate annual reservoir maintenance practices with the goal of making adjustments that protect water quality. Landowners all along Conyers Creek have been working with the Columbia SWCD over the last two years to remove invasive Policeman's helmet throughout riparian areas. Numerous downstream landowners participated in the planning phase of a restoration project sponsored by the Lower Columbia River Watershed Council in the past few years. The Gibbons are very involved in the local farming community and hosted a farm to table dinner last summer for approximately 60 people, during which they discussed the upcoming project work and how it will support their farming goals. Their involvement with NRCS programs is another important feature of this project that will be showcased through our outreach materials.

Goals, Objectives, & Deliverables

Project Goal Statement*

Provide a 2-3 sentence high-level project goal statement including project location, primary goal, impact, and target species.

Example: The project will restore a 25-acre parcel of forestland in the Umpqua Watershed in partnership with the County by removing invasive plants, resulting in the benefit of additional rearing habitat for (INSERT TARGET SPECIES). The project will also further enhance habitat by planting additional native oak trees that will provide essential coverage for other Habitat Conservation Plan Covered Species (INSERT TARGET SPECIES).

The immediate goal of this project is to restore planform and in-stream complexity to this reach of Conyers Creek, thereby increasing and enhancing spawning and rearing habitat for native species of salmon and lamprey. Proposed restoration actions will catalyze natural processes, transforming the reach into a morphologically complex system capable of supporting greater salmon production, while providing a myriad of other ecological and climate resiliency benefits.

Measureable Project Objectives

List up to the 5 most significant and measurable project objectives to achieve the project goal. Within each objective, use the *implementation* section below to describe how the objective will be implemented. List all dates as MM/DD/YYYY or MM/YYYY. It is acceptable to list date ranges.

Project objectives should be:

- *Tangible and measurable*
- *Achievable, realistic, and can be completed within the time allowed*
- *Attainable, time-bound, specific goals you can measure at the end of your project*
- *Related to your broader project goal(s)*

Objective number	Measurable Objective	Estimated Completion Date	Responsible Party

1	Design Finalization	03/30/2026	Contractor
2	Permit Approvals	06/15/2026	Project Manager
3	Implementation	03/30/2027	Contractor
4	Monitoring	12/31/2028	Contractor
5	Reporting	1/30/2029	Project Manager

Project Deliverables

List any deliverables tied to the measurable project objective(s) above. List all dates as MM/DD/YYYY. *A deliverable is any product, service, or result of a project. Documentation of deliverables must be provided to ODFW in progress reports as completed.* ***The responsible party for all deliverables to be handed in must be the Applying Organization/Grantee.***

All projects must include the following deliverables at a minimum:

- *Mid-project performance report (due halfway through project timeline)*
- *Draft project completion report (due 30 calendar days prior to project expiration date)*
- *Final project completion report (due 30 calendar days following the project expiration date)*
- *Implementation projects only: Include an Implementation Monitoring Plan deliverable in the table below, with a due date by the first progress report.*

Measureable Objective	Deliverable	Brief Description of Deliverable	Estimated Completion Date	Responsible Party
Design Finalization	90-100% Design Set; Technical Specifications; and Bid Sheet	Final designs for implementation. Includes technical specifications and a bid sheet.	03/30/2026	Contractor - Engineer
Permit Approvals	Wetland Assessment	Professional wetland assessment to determine wetland areas	12/30/2025	Contractor

Permit Approvals	Cultural Resource Survey and Report	Commissioned cultural resource pedestrian survey and report to identify any cultural artifacts on site and develop a plan for working around them or mitigating negative impacts.	01/30/2026	Contractor
Permit Approvals	All necessary federal, state, and local authorizations	Project manager will apply for and obtain all necessary approvals from Federal, State, and Local regulatory agencies prior to breaking ground. (See Compliance and Permitting section for details)	06/15/2026	Project Manager
Implementation	Contracting	Columbia SWCD will conduct a formal bid process leading to contractor selection and contract signing.	07/01/2026	Project Manager
Implementation	Construction	Project implementation will occur during the in-water work window in the summer of 2026.	09/15/2026	Contractor
Implementation	Planting	Native plants will be installed throughout the project site between fall 2026 and early spring 2027.	03/30/2027	Contractor
Monitoring	Orthoimages of project site completed in Year 1, 3, and 5 post construction	Our contractor will create updated orthoimages of the project site at scheduled intervals to monitor effectiveness and changes to the site over time.	12/31/2028	Contractor

Reporting	Mid Project Performance Report	Project Manager will submit a mid project performance report to ODFW prior to construction beginning.	07/01/2026	Project Manager
Reporting	Implementation Monitoring Plan	Project Manager will develop and submit a monitoring plan to ODFW prior to construction beginning.	07/01/2026	Project Manager
Reporting	Draft Project Completion Report	Project Manager will submit a draft completion report at least 30 days prior to project expiration.	11/30/2028	Project Manager
Reporting	Final Project Completion Report	Project Manager will submit final completion report within 30 days of grant agreement expiration	1/30/2029	Project Manager

Implementation*

This section prioritizes the measurable objectives outlined in the objective table above. Each objective should be its own header, followed by a breakdown (using a brief bulleted list, no narrative) of the actual work tasks required to achieve that objective, along with the identification for the responsible party completing each task under the objective (Lead Organization, Contractor, Partner, etc.).

Use your organization name instead of "we, them, they" and please write out acronyms in full the first time you use them.

Example:

Measurable Objective 1: Modify 5 miles of tidal channels to improve connection with the River.

- The *(Insert Lead Organization name)* will:
  - Complete ODFW fish salvage and in-water work window permit extensions.
  - Conduct fish salvage.
- The Contractor (*or partner)* will:
  - Use excavator to restore/re-grade Channels X,Y, and Z, and leave 1 miles of channels A,B, and C in their current functioning condition.

- Shape channels and set to grade to drain during each tidal cycle to prevent fish stranding and mosquito issues.

Measurable Objective 2: Protect restored tidal channels and wetlands

- The *(Insert Lead Organization name)* will:
  - Oversee the placement of bridges.
  - Ensure bridges are installed according to designs.
  - Oversee and assist with erosion control measures.
- The Contractor (*or partner)* Will:
  - Place four (4) bridges on 20-foot-long by 2.5-foot-wide by 1.25-foot thick monoblock abutment sills (one per side) with crushed aggregate surfacing at the approaches.
  - Emplace erosion control measures as per plans.

Design Finalization:
The Engineer will:
- Develop designs to the 90-100% level
- Include technical specifications and a bid sheet

The Project Manager will:
- Engage the review team and landowners to ensure consensus on final design plan

Permit Approvals:
The Project Manager will:
- Commission a wetland assessment to determine wetland boundaries within the area of potential effect
- Commission a Cultural Resource survey and report in compliance with Section 106 requirements
- Apply for and obtain all necessary Federal, State, and Local authorizations

Implementation:
The Project Manager will:
- Conduct a formal bid process resulting in contractor selection and contract initiation
- Approve erosion control and dewatering plan
- Assist with fish salvage operations
- Oversee implementation

The Engineer will:
- Review and approve the erosion control plan
- Oversee construction
- Work with the Project Manager and Construction Contractor to resolve any issues that arise during construction

The Construction Contractor will:
- Develop and submit an erosion control and dewatering plan to the Project Manager for approval
- Harvest and stage 64 logs and 56 rootwads (with DBH 12"+) from the two Doug fir stands located on the Hicks' property
- Stage equipment and materials on site
- Implement erosion control plan
- Conduct fish salvage and dewatering
- Excavate the historic Roaring Creek side channel and place engineered streambed material in the channel as needed
- Create a ~2' berm around excavated Roaring Creek channel
- Place native material in former channel along with Engineered Streambed Material to prevent avulsion

- Excavate 2 off-channel areas ending in alcoves
- Install 4 rootwads into the banks of both alcoves
- Install 8 log structures with at least 6 pieces each in streambanks where indicated on plan set
- Install 6 Beaver Dam Analogues in Roaring Creek side channel and 3 BDAs in downstream off-channel area
- Scalp areas identified as beaver forage zones
- Grade streambanks where log structures are located to a 2:1 slope or less
- Move and spread spoils on site or haul to off site location
- Excavate upland wetland to desired elevation
- Remove and crush drain tile in the Gibbons' pasture

The Vegetation Contractor will:
- Revegetate ~ 1.5 acres of riparian, 2.0 acres of floodplain, and 0.25 acres of emergent wetland areas with native species
- Install ~ 300 large 8' willow poles in beaver forage areas
- Install ~ 20,000 live stakes
- Install ~ 375 plants along Hicks' upstream streambank
- Disperse ~ 100 pounds of native seed mix throughout disturbed areas
- Perform mechanical and chemical weed control site prep and maintenance activities from Fall 2025 - Fall 2029

Monitoring:
The Project Manager will:
- Commission post project aerial imaging of the project site and schedule drone flights with the contractor
- Conduct habitat surveys in the summer of 2027 and 2028
- Coordinate with ODFW fish biologist to have him conduct a snorkel survey in summer 2028
- Conduct plant and photopoint monitoring the fall from 2027 - 2031

The Pilot/Photogrammetrist Contractor will:
- Fly the saved pre-project flight path in Year 1, 3, and 5 post project
- Produce orthoimages of the post implementation flights and provide to Project Manager

Reporting:
The Project Manager will:
- Submit to ODFW a mid project performance report
- Submit to ODFW an implementation monitoring plan before or with the mid project performance report
- Submit to ODFW a draft project completion report at least 30 days prior to grant expiration
- Submit to ODFW a final project completion report within 30 days after grant expiration

Project Schedule*

Provide a detailed project schedule below, or upload a timeline here, outlining the timeline for your proposed project. The timeline should help reviewers assess the feasibility and realistic nature of your project.

When creating a timeline, consider including the following key points:

- **Project Phases**
- **Major Milestones**
- **Task Breakdown**
- **Resources**

- **Deliverables**
- **Review and Approval Points**
- **Contingency Plans**
- **Final Reporting and Evaluation Timelines**

Engineering:
8/2025 - 9/2025: Contract initiation with Waterways for final designs and construction oversight
9/2025 - 3/2026: Finalize designs, produce technical specifications and bid sheet
9/2026 -11/2026: Production and delivery of As-built designs

Permitting:
8/2025 - 12/2025: Wetland assessment
8/2025 - 1/2026: Cultural resources survey and report
12/2025 - 2/2026: Apply for state and federal permits
5/2026 - 7/2026: Apply for local permits, Oregon Fish/Rescue Salvage permit, and Oregon Dept. of Forestry NOAP

Reporting:
6/2026: Submit mid project performance report to ODFW
6/2026: Submit monitoring implementation monitoring plan to ODFW

Implementation - Construction:
5/2026 - 6/2026: Construction contractor formal bid process, contractor selection, and contract initiation
6/2026 - 7/2026: Review and approval of Erosion Control and Dewatering plan
7/2026: On site kick off meeting with Engineer, Contractor, Project Manager, and Landowners
7/2026 - 8/2026: Tree thinning and harvest of logs/rootwads on Hicks' property; Staging of equipment and materials on site
7/15/26 - 8/15/26: Erosion control implementation; Dewatering; and Fish salvage
8/1/26 - 9/15/26: Excavate Roaring Creek side channel and off-channel areas; Install rootwads in alcoves
8/1/26 - 9/15/26: Install Beaver Dam Analogues in side channel and off-channel areas
8/1/26 - 9/15/26: Scalp beaver forage areas
8/1/26 - 9/15/26: Install large wood structures in streambanks, per designs
8/1/26 - 9/15/26: Remove/crush drain tiles in Gibbons' field
8/1/26 - 9/15/26: Grade upland wetland to desired elevation
8/1/26 - 9/15/26: Soil spread or off-haul

Implementation - Planting/Weed Control:
8/2025 - 10/2025: Bid solicitation, contractor selection, and contract initiation
10/2025 - 11/2025: Site preparation - chemical treatment of Reed canary grass in beaver forage areas and Hicks' planting site
11/2025 - 1/2026: Contractor source or grow stock for planting
9/2026: Seed disturbed areas for erosion control
11/2026 - 3/2027: Plant disturbed areas with native species according to planting plan
5/2027 - 6/2027: Mechanical weed control (Reed canary grass, blackberries etc...) a in planting areas
9/2027-10/2027: Chemical weed control in planting areas
5/2028 - 6/2028: Mechanical weed control
9/2028 - 10/2028: Chemical weed control
11/2028 - 12/2028: Supplemental planting (as needed)
5/2029 - 6/2029: Mechanical weed control in planting areas (SWCD funded)
9/2029 - 10/2029: Chemical weed control in planting areas (SWCD funded)

Monitoring:

9/2026 - 10/2026: Contract initiation with pilot/photogrammetrist
12/2026: Year 1 drone flight and production of orthoimage
8/2027: Post project habitat survey and plant monitoring
8/2028 - 9/2028: Post project snorkel and habitat survey with ODFW
8/2028: Plant monitoring
12/2028: Year 3 drone flight and production of orthoimage
8/2029: Plant monitoring
12/2030: Year 5 drone flight and production of orthoimage (Post grant expiration - covered by SWCD)

Reporting:
7/2026: Submit Mid Project Performance report and Implementation Monitoring report
11/2028: Submit Draft Project Completion report
1/2029: Submit Final Project Completion report

Compliance & Permitting

Compliance Documents*

Describe any necessary compliance documents such as permitting, approvals, or access agreements associated with the proposed project and if they've already been secured or if they are planned to be secured upon award. It is not required for projects to have secured permits prior to applying for funding.

It is the responsibility of the grantee to secure any compliance documents necessary for project implementation and provide documentation to ODFW. If permits are already secured or applied for, please attach proof to this application.

To be secured upon award of funding:
- Updated Landowner Agreements authorizing access and implementation activities
- Removal Fill Permit (Department of State Lands)
- Nationwide Permit No. 27 (US Army Corps. of Engineers)
- 401 Water Quality Certification (Department of Environmental Quality)
- 1200C Construction Stormwater Permit (Department of Environmental Quality)
- Fish Passage Plan (Department of Fish and Wildlife)
- Oregon Rescue/Salvage Authorization (Oregon Department of Fish and Wildlife)
- Notification of Operations/Permit to Operate Power-Driven Machinery (Oregon Department of Forestry)
- Grade and Fill Permit (Columbia County)
- Land Use Compliance Review (Columbia County)

Federal Services Consultation*

Describe if the project plans to, or already has, consulted with the Federal Services (National Marine Fisheries Service, U.S. Fish & Wildlife Service, Army Corps of Engineers Section 404, etc.). If not, describe why. Include any dates when consultation has or is planned to start and end, or when you expect a signed decision, if applicable.

Also include in your discussion how your project will address, has already addressed, or does not plan to address consultation regarding potential impacts on Endangered Species. ESA consultation is mandatory for all projects that could affect ESA-listed species.

This project is designed to fit under the US Army Corps. of Engineers' SLOPES Programmatic. The Project Manager will apply for a Nationwide 27 permit from the USACE by submitting a Joint Permit Application. As the federal nexus for this project, the USACE will engage in the necessary consultations with the other federal services (National Marine Fisheries Service and US Fish and Wildlife Services). We anticipate submitting the Joint Permit Application to the USACE no later than March 1, 2026 and receiving signed authorization by July 1, 2026.

Budget

Budget Upload*

Upload a copy of your budget using the most current form of the Budget Template found in the Grant Guidelines.

Upload as an excel document.

Appendix G Comprehensive Budget Conyers.xlsx

You can now claim up to 15% of the budget for indirect costs. If you have a Federally Negotiated Indirect Rate (FNIR) letter, please upload in the "Project Attachments" section at the end of this application. Learn more about our indirect rates and policies by reading Appendix Q of the Grant Guidelines.

ODFW Funding*

Briefly describe how funding from only ODFW is planned to be used for this project. Only discuss ODFW-related funding in this response.

- Define any and all acronyms used.
- Do not cite any documents

ODFW funding will be used to pay for the following expenses:
1) Engineering services for final design production and construction oversight;
2) Permitting fees and supporting assessments and reports conducted by contractors;
3) Project management wages;
4) All Construction services necessary for project implementation;
5) Planting materials and labor;
6) Post project planting and weed control maintenance; and
7) Post project orthoimage development.

Budget Justification*

Provide a brief justification for each budget category requesting funding from ODFW.

Be sure to describe any undefined or "other" cost(s), indirect costs, equipment costs over $5,000 & justification,

along with any requests for Advance Payment, Pre-project Reimbursement requests, and Post-Project Maintenance funding.

Personnel Costs:
We anticipate at least 400 hours of project management work (200 hours are being provided as match). The hourly rate represents our average Resource Conservationist rate over the next 3 years. We expect at least 80 hours of time for our Outreach Coordinator to promote this project in various media forums.

Contractual Costs:
The SWCD has obtained quotes for the cost of a wetland assessment and cultural resources survey/report for the project area from qualified contractors. Most of the construction line items (with the exception of the log harvest and BDA lines) were taken from a cost estimate produced by the project engineer. The Project Manager included a 15% contingency budget for construction items due to the uncertainty involved in construction and the possibility of cost increases over the next year or two.

The cost for harvesting the logs on site was developed from consulting with several contractors (in the restoration and logging industries). The budget for harvesting rootwads was largely estimated based on the potential size of equipment needed. There is a lot of uncertainty with regards to the potential difficulty of harvesting rootwads, so we chose a rate at the higher end of the range that was suggested. The current value of logs was obtained from a contractor working in the restoration construction field. The cost for the living BDAs was provided by Ash Creek Forestry Management, who owns the design. The cost for the non-living BDAs was determined by reviewing contractor bids for recent BDA projects in the Nehalem watershed. Costs for plant materials and labor for planting/weed control was obtained from reviewing current price sheets from nurseries and discussions with a local contractor.

Other Costs:
Permit fees were derived from checking agency websites and speaking with agency personnel. Post Project Maintenance Funding includes 100 hours of labor for the Vegetation Contractor to conduct follow up weed control activities and supplemental plantings at a rate of $70/hr. Maintenance of planting sites will occur for 3 years post project implementation (with the first 2 years covered by funds from ODFW and the 3rd year covered by the SWCD).

Indirect Costs:
We are using a 10% de minimis rate to cover costs associated with administrative personnel wages, overhead, utilities, office supplies, etc...

Additional Information

Additional Conservation and Recreation Benefit

If applicable, does your project directly provide additional benefits and/or contributing outcomes that benefit conservation and recreation programs and goals in Oregon?

For example, a project designed to improve water quality in a specific watershed might also have the co-benefit of improving municipal drinking water quality. Or a new bridge crossing over a fish bearing stream might benefit both the identified fishery and also provide improved recreational access.

This project will have positive impacts on local recreational and commercial fisheries by supporting crucial life stages of native salmonids. Increasing and enhancing rearing and spawning habitat in Conyers Creek should result in increased juvenile salmonid survival and vitality. This project is also likely to have a positive impact on flood reduction in downstream areas as a result of increased water storage capacity and floodplain engagement within the project reach. Slowing and storing more water at the project site will reduce

downstream flow quantities and velocities. This is a net benefit to landowners, properties, and infrastructure downstream of the project site as the risk of flooding and large erosional events are reduced.

Project Partners*

Provide a brief list of all project partners involved and their respective roles. Include any contractors or consultants in your response.

Waterways Consulting Inc.: Providing engineering, survey, and design services. The Project Manager has worked with an engineer and geomorphologist from Waterways to complete the initial survey, assessment, and design services to date. They are responsible for finalizing designs, overseeing construction, and providing guidance on any issues or deviations that arise during implementation.
Wetland Consultant: Not yet selected. Responsible for conducting a wetland assessment in support of permit application.
Archaeologist: Not yet selected. Responsible for conducting an online database search and pedestrian survey for cultural resources in support of permit application.
Archaeologist: Not yet selected. Responsible for conducting an online database search and pedestrian survey for cultural resources in support of permit application.
Construction Contractor: Not yet selected. Responsible for implementing project designs, erosion control, and dewatering plans.
Vegetation Contractor: Not yet selected. Responsible for implementing planting and weed control/maintenance plan.
Pilot/Photogrammetry Contractor: Local contractor who created the pre-project aerial image will produce 3 post project orthoimages in Year 1, 3, and 5 for monitoring purposes.
Videography Contractor: Not yet selected. Will work with Project Manager and Outreach Coordinator to develop and produce video of project planning and implementation for outreach.
Oregon Department of Fish & Wildlife: Biologists from ODFW will be consulted on aspects of project design as well as fish salvage activities. They will provide critical insight and advice on how to mitigate negative impacts and increase overall net benefits to target species.
Natural Resource Conservation Service: NRCS is responsible for implementing practices contained in the Gibbons' contract. These include installing riparian fencing to prevent livestock access to the creek, riparian plantings and weed control, as well as upland pasture management and grazing activities.
Landowners - Gibbons: The Gibbons will contribute to the project through NRCS cost share, use of equipment to maintain vegetation/plantings, and upland wetland data collection. They are looking forward to hosting tours of the project site and their small farm.
Landowners - Hicks: The Hicks will donate trees for use in the project from 2 stands of Douglas fir on their property.

Timber Harvest Impact*

Does the project have an impact on current and/or future timber harvest?

This project will impact future timber harvests on the Hicks' property. Logs for the project will be harvested from 2 stands of ~ 40 year old Douglas fir on their property, which are in need of thinning. Trees used for the project will obviously not be available in the future for timber harvest. However, thinning should have a positive impact on the remaining trees, encouraging more growth and a greater yield down the road.

Public Access*

Does the project impact public access by enhancing or limiting it?

No.

Project Match

Total Match Provided*

This includes the comprehensive dollar value of all match types being provided.

$122,859.00

Secured or Unsecured matching funds?*

Are matching funds secured or unsecured?

Please note: Any match indicated, secured or not, in the application is considered a commitment upon agreement approval.

Secured

Unsecured Matching Funds

If matching funds are unsecured, please explain how the project will be affected if the matching funds are not ultimately secured.

Is ODFW providing match?*

If the Oregon Department of Fish and Wildlife is providing any match please describe in the "Project Match Narrative" below and upload an ODFW letter of commitment in your project attachments. Letters must be on ODFW letterhead describing the match type, amount, and the project name match is provided for.

No

Project Match Narrative*

If providing match, briefly list all match amounts and their funding source(s), expiration date(s), and role.

Columbia SWCD: $13,200 inkind labor from the Project Manager and Outreach Coordinator.
$1,206 inkind materials - mileage for trips to project site and other related travel
$20,000 inkind materials - outreach video production of project

Natural Resource Conservation Service: $63,175 inkind labor and materials. (Contract through 2027 with Gibbons to install perimeter and cross fencing, weed treatments, riparian and wetland plantings, grazing practices etc...)

Landowner - Hicks: $18,000 inkind materials. Landowner donating conifer trees with 12"+ DBH from their property for use in project.

Landowner - Gibbons: $6,318 inkind labor. 10% Cost share for NRCS contract. Landowner will conduct mechanical weed control and labor in support of contract work (fencing, plantings etc...)
Landowner - Gibbons: $960 inkind labor. Landowners are collecting daily data on the water table in the upland wetland to inform the grading plan.

Implementation Monitoring

Implementation Monitoring Plan*

Upload here a document that describes plans to measure the implementation of the project. Be sure to describe how data will be gathered throughout the project to prove benefits, and be consistent with any Measurement Units identified above in this application. Be as detailed as possible at this stage.

It's encouraged that applicants reference Appendix *L: Template Implementation Monitoring Plan* in the most current form of the Grant Guidelines to ensure your Implementation Monitoring Plan adheres to programmatic requirements.

Implementation Monitoring Plan.pdf

Anticipated Benefit Summary

Briefly detail in the table below the quantitative measurement of the anticipated extent of habitat improvement or restoration, such as:

- Miles of stream opened above barriers,
- Acres of habitat restored,
- Cubic feet of flow restored,
- etc.

If the benefits of the proposed action would not be habitat-based in nature, describe the metrics that will be used to characterize the beneficial effects of the proposed project on the covered species, such as the number of individuals translocated or the number of installed culvert devices or pond levelers.

For any units not listed below or for qualitative metrics of success, use *"Other unit."*

Project Action	Anticipated Number
CFS Restored	
Roads Repaired	
Miles of Stream Habitat Restored	0.43

Miles of Stream Opened	.01
Culverts Retrofitted	
Other Unit 1 (Undefined)	3.85
Other Unit 2 (Undefined)	120
Other Unit 3 (Undefined)	9

Define Other Unit

If "*Other Unit 1,2 or 3*" was selected as a unit, please define it.

Other Unit 1: Acres restored with native plantings and weed control
Other Unit 2: In-stream large wood pieces added
Other Unit 3: Number of BDAs installed

Post-project Maintenance

Please reference the "Post-Project Maintenance Funding Conditions" in the Grant Guidelines. All requested post-project funding should be listed in the budget under the "other" budget category as "post- project maintenance funding" as one line-item.

How much post-project maintenance is being requested?*

$7,000.00

Maintenance funding use*

Describe how post-project maintenance funding will be used.

Post project maintenance funding will be used to perform chemical and mechanical weed control activities and supplemental plantings, as needed.

Ground Disturbance

All award recipients are responsible for securing all required local, state, and federal permits and approvals to carry out the approved project. This includes, but is not limited to, fill/removal permits, tribal, historic, and cultural compliance (including the National Historic Preservation Act), in-water work permits, and any other necessary approvals.

Ground Disturbance*

Describe the capital improvement, engineering, site grading, or other construction and identify who is doing the work (Grantee, Partner, Contractor).

This project is being engineered by Waterways Consulting Inc. The engineer of record is responsible for overseeing and approving all construction activities.

All construction activities will be the responsibility of the selected contractor with oversight by the engineer and Project Manager. This project includes excavation of the historic Roaring Creek side channel, 2 off-channel areas, streambank excavation for log structure burial with bank sloping. Beaver Dam Analogues will be installed in the Roaring Creek side channel and downstream off-channel area. Some amount of excavation will occur in the beaver forage planting areas to remove Reed Canary grass thatch and scalp the top layer of soil for preparation of planting. A minor amount of excavation will take place in the Gibbons' upland pasture area to remove drain tiles and enhance wetland function.

Oregon State Historic Preservation Office (SHPO) Consultation*

Has the project consulted with, or plans to consult with, the Oregon State Historic Preservation Office? If no, why?

The Project Manager has consulted with a tribal representative who recommended obtaining a Cultural resources survey to include a pedestrian survey, subsurface investigation and report. This will be included in our Joint Permit Application to the US Army Corps. of Engineers. USACE will in turn consult with the relevant tribes and with SHPO. Proof of those consultations will be provided at a later date.

SHPO Upload

If the project has consulted with the Oregon State Historic Preservation Office please provide proof of communication as an application attachment, email confirmation is acceptable.

Projects with Herbicide

Vegetation*

Describe the current vegetation conditions and composition at project site. Provide a description or list of the dominant native and invasive plant species, any rare or sensitive species, percent cover of invasive species, and if they occur in monocultures or mixed communities with natives

We have identified 4 unique planting zones in this project, listed as follows and shown on the attached planting map:

Riparian Upland Zones: These areas are marked in orange on the planting map and are located along the Conyers' mainstem in areas of channel incision and erosion. These sites are perched above the ordinary high water line, making them drier sites. The section on the Hicks' property contains a few mature conifers, but

not enough to fully shade the stream. The understory is mostly Reed canary grass, mowed almost right up to the streambank. The section on the Gibbons' property contains a sparse row of mature hardwoods (mostly Red alder) dominated by invasive species like Himalayan blackberry, Reed Canary grass, and Field bindweed in the understory. The bank where large wood treatment is focused is completely devoid of any trees or native vegetation.

Floodplain Streambank Zones: These are the areas shown in yellow on the planting map. The upstream site is where the first off-channel habitat/alcove will be installed. This bench sits lower than the adjacent field and is mostly below the ordinary high water line. This site is completely choked by Reed Canary grass, invasive blackberries, and Policeman's helmet, with the exception of a few struggling Red alders. The next downstream yellow zone is the rough location for the side channel re-engagement of Roaring Creek. This area is below the ordinary high water line, sits within the Conyers' floodplain, and is comprised of a Reed canary grass monoculture.

Floodplain Bench - Beaver Forage Zones: The zones marked in pink are areas where planting will focus on installing beaver forage species as well as a few other fast-growing natives that are well-suited for the conditions. The most upstream site is a floodplain bench on the Hicks' property that is currently a monoculture of Reed Canary grass. The next downstream pink site consists of the section of the Roaring Creek channel that will be abandoned when it is rerouted back into its former streambed. These sites are currently Reed Canary grass dominated fields.

Emergent Wetland Zone: The zone marked in blue is the upland wetland area on the Gibbons' property where the intention is to enhance wetland function by grading low enough to cause the water level to choke out the Reed canary grass and permit native wetland species to thrive. Currently this area remains saturated through most of the year. It is dominated by Reed canary grass, however, there is just enough of a difference in the topography for a few native sedges and rushes to grow.

Approximately 90% of the understory throughout the project reach is comprised of invasive species, mostly monocultures of Reed canary grass, Himalayan blackberries, Policeman's helmet, and Field bindweed. Native plants scattered throughout the project site include Red alders, Red elderberry, Osoberry, and Sword fern.

Applicators License*

Will your project be using an applicator that has an Oregon Pesticides/Herbicide Applicators License?

Yes

Chemical Treatment*

Please describe any chemical treatment measures proposed and why.

Spot treatment of appropriate herbicides will be used at selected planting sites in order to ensure sufficient weed control for native plants to become established. Chemical treatments will be utilized in combination with mechanical methods on the Hicks' property along the Upland Riparian planting area, willow nursery/beaver forage zone and off-channel/alcove area in order to control Reed canary grass and Himalayan blackberries. The Natural Resource Conservation Service and landowners are responsible for weed control and planting efforts on the Gibbons' property with the exception of the beaver forage zones. The Gibbons' are not in favor of using herbicides, so we are relying on good site preparation in the form of scalping, the installation of fast growing native stakes, and mechanical weed control in these areas.

Project Attachments

Project may use this section to upload additional supporting attachments. If the proposal has many attachments, attachments may be uploaded as a zipped folder with clear and concise file name(s).

Example Attachments:

- **Project feasibility documentation**
- **Plans, designs, and/or engineering specifications**
- **Secured permits and regulatory approvals needed to implement the project**
- **Letters of Support**
- **Letters of Commitment**
- **etc.**

Supporting Project Attachment(s)

You may attach multiple files into a single submission. If possible, please include a table of contents or compress the files into a zip folder, ensuring that each file is appropriately named.

Project Attachments.zip

Federally Negotiated Indirect Rate Letter

If you are requesting an indirect rate greater than 15% please upload your Federally Negotiated Indirect Rate Letter here.

ODFW Letter of Commitment

For projects including matching funds from the Oregon Department of Fish and Wildlife, upload a commitment letter on ODFW letterhead detailing the specific match type, amount, brief description, and project name. Address all letters to the PFA MAC. Letters of Commitment are mandatory prior to any agreement being executed.

Label the file "ODFW Commitment Letter" and upload it here.

Project Map Upload*

Project map(s) are required, uploaded here as a PDF. If you choose not to upload a map, please explain why in the text area below to "skip" this question.

At the minimum, all maps must delineate the following:

- Location(s) of proposed project activities(s), including any construction or research boundaries.
- Regional location and site-specific information such as property boundaries, work locations, survey areas, surface water bodies, and monitoring points.
- True north arrow
- Map title and legend
- Latitude and Longitude of Project Center Point
- Proposed measurement locations (if applicable)
- ***Optional*** *- Tax Map and Lot numbers of each property in the project area boundary.*

It is recommended that detailed project maps are uploaded so that grant reviewers can fully understand the project scope.

Conyers Project Area Map.pdf See supporting attachments for the design set showing construction areas, staging and access areas.

Certification

Conflict of Interest (COI) Statement*

Does the primary applicant and / or the lead organization have a known Conflict of Interest (COI) associated with the PFA Mitigation Advisory Committee, the Oregon Department of Fish and Wildlife, or the Oregon Fish and Wildlife Commission?

No

If a COI is declared, please briefly describe the conflict.

Certification*

I certify that I have approval from my organization to submit this application and that the above information is true and accurate to the best of my knowledge.

Yes

Authorized Representative Name*

Malyssa Legg

Authorized Representative Title*

Interim District Manager

Authorized Representative Organization*

The lead organization.

Columbia Soil and Water Conservation District

Certification Date*

11/12/2024

All proposals are considered final and complete at the time of submission. Once submitted, revisions, edits, or additions to your proposal will not be permitted. Please ensure that your proposal is fully complete before submitting.

Thank you for considering the PFA Grants Program. We anticipate announcing awards in the spring of next year.

File Attachment Summary

Applicant File Uploads

- Appendix G Comprehensive Budget Conyers.xlsx
- Implementation Monitoring Plan.pdf
- Project Attachments.zip
- Conyers Project Area Map.pdf

Project Title:	Conyers Creek Habitat Diversification & Enhancement
Project Type:	Implemenation

Add additional rows if necessary

This budget is to only represent funding requested from ODFW, other than the match budget category.

Budget Categories	Quantity	Unit	Cost/Unit	Total
Personnel Costs (Titles)				
Resource Conservationist (Project Manager)	200	Hours	$50.00	$10,000.00
		Hours		$0.00
			Personnel Cost Subtotal:	**$10,000.00**
Contractual Costs				
Engineering Services: Final designs and project oversight	1	Contract	$59,280.00	$59,280.00
Permitting: Wetland Assessment	1	Contract	$10,000.00	$10,000.00
Permitting: Cultural Resource Survey and Report	1	Contract	$30,000.00	$30,000.00
Construction: Mobilization	1	Contract	$34,500.00	$34,500.00
Construction: ESCP Implementation	1	Contract	$13,300.00	$13,300.00
Construction: Drain tile demolition	1	Contract	$500.00	$500.00
Construction: Clearing & Grubbing	1	Contract	$6,000.00	$6,000.00
Construction: Dewatering & Fish Salvage	1	Contract	$23,000.00	$23,000.00
Construction: Unclassified Excavation	3750	Cubic yards	$16.00	$60,000.00
Construction: Soil Off-haul or Spread	1849	Cubic yards	$14.00	$25,886.00
Construction: Engineered Fill	236	Cubic yards	$18.00	$4,248.00
Construction: Engineered Streambed Material	160	Cubic yards	$147.00	$23,520.00
Construction: Rootwad Harvest	56	Each	$650.00	$36,400.00
Construction: Log Harvest	64	Each	$100.00	$6,400.00
Construction: Bank Log Structure Installation	8	Each	$8,000.00	$64,000.00
Construction: Alcove Habitat Log Structure Installation	8	Each	$400.00	$3,200.00
Construction: Live Beaver Dam Analog Structure Installatior	3	Each	$6,650.00	$19,950.00
Construction: Non-living BDA Installation	6	Each	$3,000.00	$18,000.00
Construction: Contingency (15%)	1	Each	$50,836.00	$50,836.00
Planting: Materials	1	Each	$36,950.00	$36,950.00
Planting: Labor	260	Hours	$70.00	$18,200.00
Aerial Imaging & Photogrammetry: Effectiveness monitorin	8	Hours	$175	$1,400.00
			Contractual Cost Subtotal:	**$545,570.00**
Supply Costs (Lump into categories. Detail should be in Scopt of Work)				
	0	Each	$0.00	$0.00
	0	Each	$0.00	$0.00
			Supply Cost Subtotal:	**$0.00**
Equipment Costs (Any single purchase over $5,000)				
	0	Each	$0.00	$0.00
	0	Each	$0.00	$0.00
			Equipment Cost Subtotal:	**$0.00**
Travel Costs				
		Miles	$0.67	$0.00
	0	Miles	$0.00	$0.00
	0	Miles	$0.00	$0.00
	0	Miles	$0.00	$0.00

			Travel Cost Subtotal:	$0.00
Other Costs				
DSL Wetland Delineation Fee	1	Each	$559	$559
DEQ 1200C Stormwater Construction Permit	1	Each	$2,984.00	$2,984.00
DEQ Water Quality Certification Fee	1	Each	$985.00	$985.00
County Grade & Fill Permit	1	Each	$1,200.00	$1,200.00
County Land Use Compliance Review	1	Each	$315.00	$315.00
Oregon Rescue/Salvage Authorization	1	Each	$150.00	$150.00
Post Project Maintenance Funding	100	Contract	$70.00	$7,000.00
			Other Costs Subtotal:	$13,193.00
Indirect costs (Percentage of personnel costs, supply costs, equipment costs, and other costs. Auto-generated)	Insert Indirect Rate Manually up to 15% only -->		**15%**	$3,478.95
			Total Funding Requested from ODFW	$572,241.95

Match (If applicable)				
Columbia SWCD Resource Conservationist (Project Manage	200	In-kind	$50	$10,000.00
Columbia SWCD Outreach Coordinator	80	In-kind	$40.00	$3,200.00
Columbia SWCD Outreach Video Production	1	Unsecured	$20,000.00	$20,000.00
Landowner donated logs on site (DBH 12"+)	120	In-kind	$150.00	$18,000.00
NRCS Contract with Landowner	1	Partner	$63,175.00	$63,175.00
Landowner Wetland Data Collection	30	In-kind	$32.00	$960.00
Landowner NRCS Cost Share (10% of Contract)	1	In-kind	$6,318.00	$6,318.00
Columbia SWCD Mileage	1800	In-kind	$0.67	$1,206.00
	0	Dollar	$0.00	$0.00
	0	Dollar	$0.00	$0.00
			Total Math Provided	$122,859.00

Total Cost of Project	$695,100.95

Upoad this budget online as an EXCEL document, when submitting the Grant Proposal.

Conyers Creek Habitat Diversification & Enhancement Project

Implementation Monitoring Plan

Table of Contents:

Project Background and Limiting Factors:

This project is located on Conyers Creek, a tributary of the Clatskanie River, which is contained within the Lower Columbia -Clatskanie River watershed. The project reach is situated in the mid to upper watershed where the predominant land use is rural residential. Lidar, ground observations, and antecdotal histories indicate that Conyers was once more of a braided complex of channels with a relatively wide and accessible floodplain. Historic logging practices, development, and land conversion have led to planform simplification and habitat degradation. Tree harvesting has removed many (if not all) of the large, old-growth trees that would have once contributed woody material to the stream. Riparian areas in the mid and lower parts of the watershed lack conifer species and are often devoid of trees at all, as native vegetation is crowded out by aggressive invasive species like Himalayan blackberries and Reed canary grass. Fields have been graded and drained for farming purposes and the stream has been pushed into an ever-incising channel. Residential development and road building have further exacerbated these problems by constricting the floodplain and consolidating upland flows, which are sometimes directed straight into the creek without any opportunity for natural filtration to occur. Two tributaries entering Conyers Creek within and just upstream of the project reach (Roaring Creek and West Creek respectively) contain drinking reservoirs for the City of Clatskanie. These systems undergo annual maintenance in the form of dredging that results in significant turbidity for up to a week during the summer when the water volume is low and juvenile fish are rearing in the system.

Currently the stream is fairly incised throughout the project reach. There are relic side-channel and off-channel areas, which are generally only activated at high flows. Without natural flow obstructions to buffer and maintain transitional areas, the habitat and complexity that does exist is largely diminished in value. The lack of in-stream material, like large wood, results in ongoing channel incision, destabilization of streambanks, lack of in-stream habitat features, and loss of crucial spawning gravels. Surveys of Conyers Creek note a "Good" rating for the number of pools, but a "Poor" rating for the number of complex pools. This is another indicator of a lack of large wood in the system and of natural large wood sources. Conyers Creek has been highlighted as a priority area for large wood installation and riparian enhancement by habitat surveys and the Lower Columbia River Watershed Council's Strategic Action Plan. There is ongoing evidence of beaver activity at the project site, including some attempts at dam building with Alder as the building material. Unfortunately, the area is devoid of preferred forage species for beavers and current hydrologic conditions make it highly unlikely that dams can persist through the winter. Finally, water quality is a big concern given the summer reservoir clean outs, lack of riparian vegetation in some areas, erosion of streambanks, and existence of field drainage systems.

Project Abstract:

Conyers Creek is habitat for several ESA-listed salmonid species, as well as other species of concern like Pacific lamprey. The Oregon Department of Fish and Wildlife is actively reintroducing Lower Columbia River Chum into the Clatskanie watershed. One of their reintroduction sites is on Conyers Creek, just upstream of the project reach. Recovery plans identify lack of overwintering habitat, including access to off-channel and side-channel areas, as the primary tributary limiting factor for salmon in the greater Lower Columbia River watershed.

This project will address key limiting factors by implementing the following actions: 1) Re-engagement of Roaring Creek's historic side channel; 2) Off-channel habitat creation; 3) Installation of large wood structures to increase in-stream complexity and reduce erosion; 4) Beaver Dam Analogue installation in side-channel and off-channel areas; 5) Planting of riparian and floodplain areas with native plants and beaver forage species; and 6) Drain tile removal and upland wetland enhancement for water quality and amphibian habitat enhancement. This project is designed for long term impacts and climate resiliency through its appeal to beavers, mixture of high tech and low tech processes, focus on floodplain engagement, and planting for future conditions.

Monitoring Objectives:

The primary objectives of the Monitoring Plan are:

1) Track project progress and schedule;
2) Ensure compliance with funding conditions and regulatory requirements;
3) Identify challenges/obstacles early;
4) Measure impacts from project actions; and
5) Track changes/effectiveness over time.

Secondary objectives of the Monitoring Plan are:

1) Increased accountability for ensuring project deliverables and timelines are met;
2) Determining places for greater efficiency and effectiveness in the future;
3) Knowledge building;
4) Informed project assessment and cost/benefit analysis; and
5) Collecting useful data for reporting.

Monitoring Elements:

1) *Project Progress*:
   - ❖ Grant Deliverables
   - ❖ Project Schedule/Timeline
   - ❖ Approvals and Authorizations
   - ❖ Project Activities
   - ❖ Project Budget
   - ❖ Contractual Obligations
2) *Quantifying Direct Project Impacts*:
   - ❖ In-stream habitat created/restored (miles)
   - ❖ Large wood added to system (# of log structures installed/total # of pieces)
   - ❖ Number of BDAs installed
   - ❖ Initial number of pools added and complex pools created
   - ❖ Acres restored with native plants and weed control activities
3) *Project Effectiveness and Changes Over Time*:
   - ❖ BDA survival, colonization and dam building by beaver
   - ❖ Number of complex pools in project reach
   - ❖ Average pool area (square feet) and depth (meters) throughout project reach
   - ❖ Changes to habitat features, frequency and type
   - ❖ Formation of additional side-channel and/or off-channel areas
   - ❖ Floodplain engagement frequency
   - ❖ Beaver forage levels
   - ❖ Plant survival and percent native plant cover
   - ❖ Fish counts in pools
   - ❖ Shade rating throughout project reach

Monitoring Strategy:

1) Project progress will be tracked through the use of organizational tools including spreadsheets and project boards for timelines, deliverables, and budget. The Project Manager will also schedule regular and periodic check-ins as appropriate with other team members including the engineer and other contractors.
2) Direct project impacts will be evaluated through site visits and online mapping tools to estimate acres treated.
3) Effectiveness monitoring will utilize a number of different data collection techniques outlined as follows:
    a. Aerial imaging will be used to document BDA survival, colonization and general beaver activity as well as changes to plant communities, floodplain engagement, and creation of new side-channel or off-channel areas. Post project drone flights and orthoimages of the project will be commissioned in Year 1, 3, and 5 for comparison with the pre-project orthoimage developed in December 2023. Aerial imaging provides a complete view of the project reach and showing changes in hydrology, vegetation, beaver activity, BDA and logjam structural integrity, and stream shading.
    b. Photopoint monitoring will also be used to document pre and post project conditions as well as track survival and percent cover of native plants.
    c. Data will be collected in Field maps (an online data collection app) regarding habitat type, quantity, large wood, pool metrics, and shade rating during stream surveys conducted in the summer of 2027 and 2028, as well as in surveys post grant. Baseline data for these metrics was collected in the summer of 2024.
    d. Staff from the Oregon Department of Fish and Wildlife will conduct a snorkel survey in the summer of 2028, counting fish in pools throughout the project reach, to compare to baseline data collected by them in the summer of 2024.
    e. The Project manager will establish monitoring plots (100 sq. feet each) in planting areas to monitor success of plant establishment and native plant cover.

Monitoring Schedule & Frequency:

Project Progress Tracking: Tracking of schedules and deliverables at least 1x/biweekly and check-ins with contractors at least 1x/month throughout planning and implementation phases.

Quantifying Direct Impacts: Post project implementation in the summer of 2026 and post planting in early spring 2027.

Effectiveness Monitoring:

- Aerial Imaging: 1x in 12/2026, 12/2028, and 12/2030
- Photopoint and Plant Survival Monitoring: 1x in Fall 2026 (to document baseline conditions), Fall 2027, Fall 2028, Fall 2029, and Fall 2030
- Habitat Surveys: 1x in Summer 2027, Summer 2028, and Summer 2031
- Snorkel Survey: 1x in Summer 2028, additional post project surveys by ODFW as schedules allow
- Visual Surveys of Conditions: 1x in Summer and Winter 2026 – 2031

Roles & Responsibilities:

The Project Manager is responsible for coordinating all aspects of the monitoring plan. The Project Manager will conduct project tracking and record direct impact metrics, perform photopoint monitoring, visual surveys, plant survival monitoring, and habitat surveys. The ODFW fish biologist will conduct the summer 2028 snorkel survey. The Project Manager will contract out the photogrammetry/aerial imaging work.

Monitoring Procedures & Methodology:

Baseline Data:

The Project Manager has established baseline conditions by:

1) Taking pre-project photopoints;
2) Recording habitat data and fish counts from snorkel and habitat surveys in the summer of 2024;
3) Commissioning a pre-project orthoimage of the project reach in December 2023;
4) Reviewing historical data from fish/spawning and habitat surveys in the reach.

Methodology:

1) Photopoints will be taken annually at approximately the same time of year from the same location at the same scale as the original photo.
2) At least one 100 sq. ft monitoring plot will be created (using stakes and flagging) per planting zone in the spring of 2027, or at time of planting. The total number of plants installed in each plot will be recorded and checked annually for plant survival rates in summer or early fall. The Project Manager will estimate native plant coverage through visual observation.
3) Habitat surveys will be conducted at least 2 times post project in the summer, with data collected in Field maps (online data app). Data collected includes the following:
    a. Habitat type: Riffle, Glide, Pool, Side-channel, Off-Channel, Tributary Confluence
    b. Log jam/large wood locations and number of key pieces
    c. Pool depth (meters) and surface area (square feet)
    d. Pools contain large wood or not
    e. Current fish counts in pools (if available).
    f. Floodplain engagement frequency (High, Medium, Low)
    g. Beaver forage level (High, Medium, Low)
    h. Shade rating of Poor (0-33%), Fair (34-66%), or Good (67 – 100%).
4) A snorkel survey will be conducted by an ODFW fish biologist in the summer of 2028.
5) The contracted pilot/photogrammetrist will conduct a drone flight in December 2026, December 2028, and December 2030 using the same flight path saved from the pre-project flight, ensuring consistency in scale and perspective between all orthoimages.

Data Management:

Habitat survey data will be stored in ESRI Arconline, which is available for sharing with other organizations or members of the public. Photopoint and plant survival data will be submitted to ODFW in reports and stored on the SWCD's public server. Orthoimages and associated individual images will be stored on a thumbdrive, given their large file size. A pdf of the orthoimage will be generated for sharing with ODFW and other interested parties.

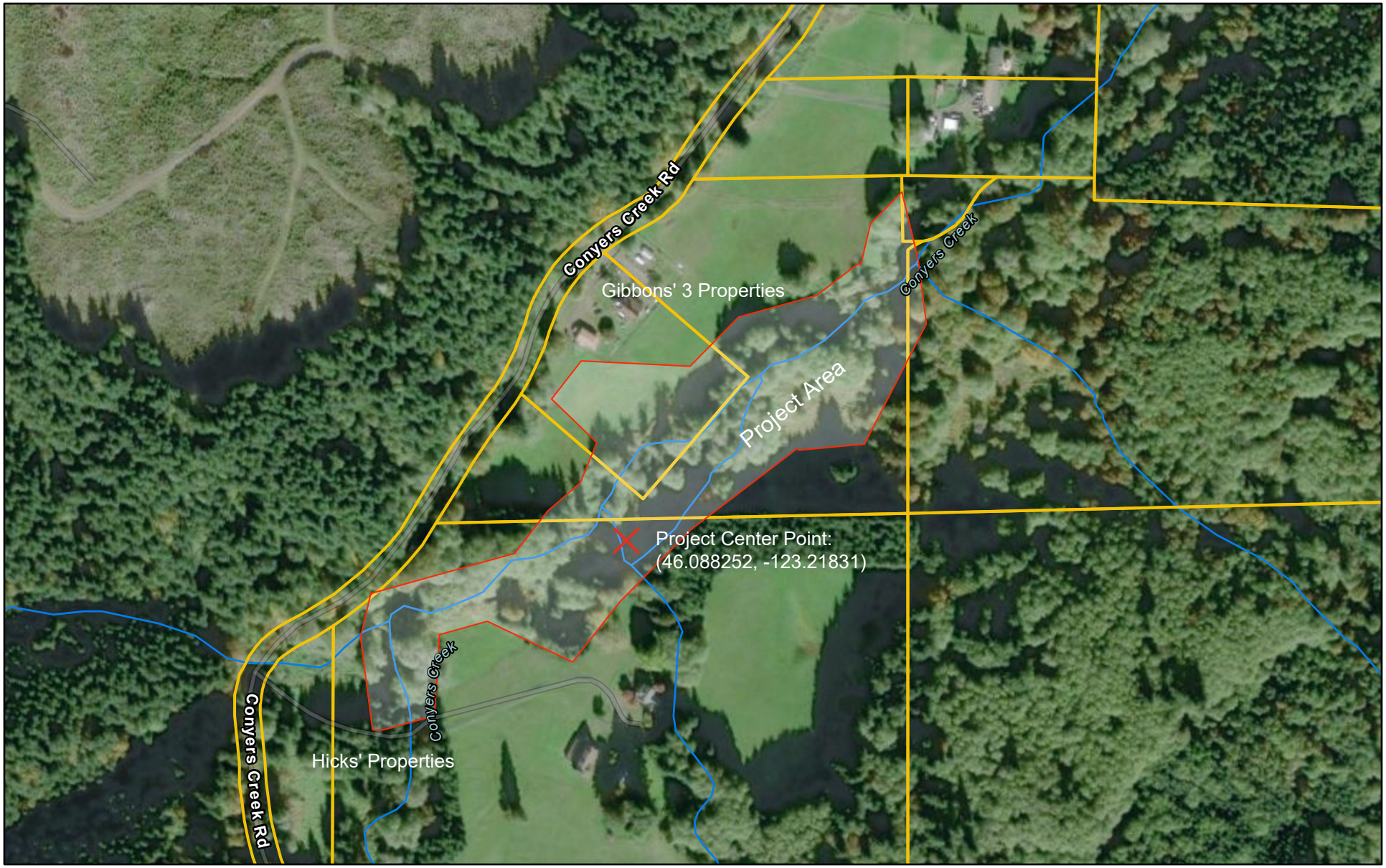
Use of Monitoring Data:

Monitoring data will be used in reporting to demonstrate project completion, measure direct impacts, and track effectiveness and change over time. The Applicant will use monitoring data to assess project effectiveness, make cost/benefit analyses of particular practices, increase knowledge of restoration impacts, and help make more informed decisions in the future. Monitoring data will be useful in predicting the long term value of the project to HCP species, other priority species, water quality, and climate resiliency.

Resources & Capacity for Monitoring:

The Applicant has the capacity to conduct monitoring activities as outlined in this plan. Additional funding would be useful for extending the monitoring window and for covering the cost of the aerial imaging work that falls outside of the grant timeline. Including extended monitoring activities within the scope of this proposal would be useful, but is not feasible given that the final 10% payout is contingent on receipt of the final report, which is expected to cover all paid monitoring activities.

Conyers Project Area Map



11/6/2024

2024 Taxlots

Stream_41009

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

1.2m Resolution Metadata

1:5,437

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

Esri Community Maps Contributors, Oregon State Parks, State of Oregon GEO, WA State Parks GIS, © OpenStreetMap, Microsoft, Esri, TomTom,

By: Crystalyn Bush, Columbia SWCD

11/6/2024