

Landscape Scale Restoration Project Report



Project Name: PCEI Multi-Site Riparian Buffer Planting

Funding Year: 2024

Stakeholders

Forest Service Region: USDA Forest Service - R1

Sponsoring Organization: Idaho Dept. of Lands

State Project Contact: Tyre Holfeltz | 208-666-8653 | tholfeltz@idl.idaho.gov

Participating Organizations: Idaho Dept. of Lands

Grantee: Idaho Dept. of Lands

Project Funding

Agreement(s): 24-DG-11010013-035

Project Design

Landscape Scale Restoration Project Report



Project Purpose

Project is 2 sites at the toe of Moscow Mountain in the Panhandle region of ID (Palouse-St. Joe priority area as outlined in ID's 2020 FAP), of which communities are identified as socioeconomically underserved. Site 1 is the ongoing Stage '0' project (Deary-pop 426) on Little Bear Creek just before confluence w/ Middle Fork Big Bear, which has observed Steelhead (IDFG, 2023). Site 2 (Princeton-pop 121) has 2 ponds in the drainage area of 2 unnamed tributaries of the Palouse River. The project area has significant habitat loss due to past/current logging and farming. The goal of the project is to improve water quality (temp/sediment) and expand/connect terrestrial wildlife habitats. Goals will be met by addressing Landscape Objectives: improving fish & wildlife habitats, including habitats for threatened & endangered species, & improving water quality & watershed functions. 2020 FAP goals are: 1) Idaho's forests are diverse and resilient to climatic changes and other threats; 2) Forestlands that provide the highest ecosystem benefits are identified, maintained, and enhanced. The project is a \$240K restoration effort on private lands that will install plants and exclusionary fencing. PCEI staff & volunteers, and the landowners will lead this effort. Educational volunteer field days will aid local citizens in plant ID, ecological principles, and restoration techniques leading to additional habitat restoration.

Resource Objective

Primary Objective

- Improve important forest ecosystems

Secondary Objective(s)

- Improve fish and wildlife habitats, including for threatened and endangered species
- Maintain or improve water quality and watershed function

Landscape Scale Restoration Project Report



Strategic Issues

Obj #1: Improve fish and wildlife habitats, including habitats for threatened and endangered species. G1: Increase cover for wildlife. G2: Increase wildlife food production. Obj #2: Improve water quality and watershed functions. G1: Decrease erosion of banks by installing deep rooting plants. G2: Increase shade alongside waterways and upland areas to decrease water temp. G3: Restore riparian buffer filtration function. These goals are actionable steps to achieve LSR prgm Objs 1-3 & 5. Using a heterogeneous mixture of native plants, wildlife corridors will be more resistant to uncharacteristic wildfires & invasive species and will enhance wildlife suitability for threatened and endangered species. Also, by educating community members on-site, less pollution and more preventative care in maintaining local ecosystems will take place. The proposed projects are in the Palouse-St. Joe Priority Landscape Area. The Stage '0' project near Deary, Idaho, needs supplemental planting to negate stream bank incising associated with past agricultural practices and logging. Restoration planting will slow the creek flow & allow the stream to spread out into the floodplain- thus holding water longer for wildlife. A connected floodplain in Stage '0' projects improves filtration and is ecologically beneficial to flora and fauna (Oregon Watershed Enhancement Board, 2021). Landowners indicated that previous work in adjoining locations increased the water table by 4. Site 2 has two wildlife ponds located in Princeton, Idaho. Since 1900, 97% of the wetland in the Palouse Bioregion has been converted for other land uses (Black et al., 1998). Consequently, suitable wildlife habitat has been degraded or destroyed, leading to losses of biodiversity and ecosystem function, which these projects will endeavor to restore. The historic native plant community at both ponds has been converted to agriculture, consistent with regional land use patterns. Artificial ponds in Northern Idaho illustrate adequate habitat for amphibian species with proper management (Monello & Wright, 1999). PEI will plant riparian buffers and upland cover using native plants that improve wildlife habitat for local fauna (deer, migratory birds, etc..) and connect habitats to water sources. The project will improve bank stabilization, water filtration, and increases shade in the area; all to decrease water temp & sediment loads to downstream water sources.

Landscape Scale Restoration Project Report



Collaboration & Partners

The Stage '0' project is the second phase of the greater restoration project that started in 2018 and will continue collaborative efforts. The landowners have worked with the NRCS Field Office of Moscow, ID to gain financial support for the initial phase of the 10-acre project through the NRSC EQIP program. The NRSC Field Office provided cultural studies, engineering, soil studies, vegetation plot studies, monitoring, education opportunities, and project tours. NOAA National Marine Fisheries assisted through project consultation, design assistance, hydrologic assistance, and onsite educational outreach. NRCS West National Technology Support Center collaborated through engineering consultation and geologic and hydrologic studies. Idaho Fish & Game, US Fish & Wildlife Service provided consultation for native species revegetation and financial assistance for revegetation. Latah County Soil & Water District assisted through project consultation, planning, design strategies, seeding assistance, and vegetation studies. The Idaho Governor's Office of Species Conservation has collaborated by promoting education events, public awareness, and project tours. Anabranth Solutions contributed through monitoring reports, drone flights, restoration consultation, and BDA construction. Nez Perce County of Idaho provided geospatial data of Little Bear Creek drainage. In the NRCS EQIP program, landowners are the general contractors for the project. Landowners hire the labor and equipment and purchase plants/materials needed to complete projects. Local volunteers assist landowners during site preparation and construction with operators for heavy equipment. This project meets priority points through the implementation of project activities across multiple private ownerships and illustrates the commitment to ongoing collaboration and sustainable management of the land. These projects surround Moscow Mountain, a large land area crucial for local wildlife. Connecting riparian areas to upland forested habitats increases habitat viability for the long-term success of game, by increasing resilience to climate change and drought. Private landowner cooperation and engagement is vital for the regional success of restoration efforts. Project landowners desire to enhance wildlife habitat on their properties and improve ecosystem functions. The two project sites provide many education opportunities for schools and the general public. Projects like these will encourage other landowners to improve their land for wildlife and increase the resiliency of the landscape overall. PCEI manages hundreds of volunteers each season and is well-equipped to do so. They will work with Univ of Idaho and Washington State Univ, who will be key in providing volunteer support for the project. Volunteer outreach will be completed by PCEI staff using GivePulse and social media.

Landscape Scale Restoration Project Report



Integrated Delivery

The Stage '0' site sits on 10 acres of wetland at the end of Little Bear Creek, with undeveloped private and public land to its West, North, and Northeast. Downstream, the creek immediately turns into the Middle Fork Big Bear Creek before running through primarily privately owned farmland. The ponds at Site 2 (.75 acres) are small, privately owned water bodies with observed wildlife activity sitting on adjacent properties in Princeton. They are in the drainage areas of 2 unnamed tributaries of the Palouse River. The area is dominated by private farmland with some development from nearby towns. All sites will address Landscape Objectives of improving water quality, wildlife habitat, and important forest ecosystems on different scales. Site 2 will improve the landscape immediately surrounding it and the downstream impacts of increased sediment filtration. While smaller properties, these are highly visible projects in the community. These projects will show landowners that even a few hundred plants can improve habitat and connect parcellated forestland. Stage '0', will restore the natural state of a portion of the Little Bear to improve the quality and size of fish spawning habitat across the project. The Stage'0' site has been featured in multiple articles and press releases and has high visibility off the highway. Each project site will help achieve Idaho's 2020 FAP goals 1 & 2. Increasing plant diversity and density will improve the resiliency of all immediate ecosystems. The events that PCEI puts on will engage the local community and landowners in conservation practices relevant to forest and ecosystem health. These events will be intimate and smaller in scale so that they can have hands-on learning and meaningful impact. Community members are more likely to initiate change on their land if they feel comfortable with the restoration practices and the project scale is digestible. Both sites are in the Palouse-St. Joe FAP priority landscape.

Landscape Scale Restoration Project Report



Influence on Positive Change

PCEI's mission is "connecting people, place, and community." PCEI has completed many riparian buffer projects in the region, with a heavy reliance on community connections to complete project work. PCEI has been acknowledged with many awards for the work done in the region. Each restoration site gives volunteers the opportunity to learn, serve, and restore the Palouse providing for the technical transfer of information. This project will have a great impact during this phase of work, showing local landowners how to complete restoration, supporting them with resources (i.e. native plants, best practices, and volunteers), and connecting them with local agencies for replicability of project. Environmental volunteering is an untapped source for promoting community health. By hosting events at project sites, volunteers will be exposed to opportunities for personal development and environmental awareness. PCEI has chosen native species, from native stock, to ensure the projects are sustainable. As the plants grow, benefits will be cumulative, and habitat will be improved exponentially each year. As an upland plant grows taller, a riparian plant will be provided with more shade- thus improving vigor. With more habitat cover, more wildlife will come to the site to browse, thus spreading the seeds to create additional habitat. Having a variety of native plantings, with varying levels of intolerance to drought and pests, will maintain a resilient ecosystem. Since the project is 3 years, adaptive management will be used to ensure the survival of at least 80% of plantings. Plantings will be maintained throughout the grant cycle and will be self-sufficient thereafter. Landowners will be educated by PCEI on how to take care of sites. Sites will be used as examples to promote restoration in the Palouse Region for future expansion of work. PCEI will return to check on projects and offer advice for 10 years after project completion.

Accomplishments

Deliverables

Restoration of upland and riparian forests to improve ecosystem functionality. Specific deliverables will be further developed and refined upon execution of sub-award to PCEI.

Accomplishments to Date

2024: NOFO of award to sub-recipient cooperator

Deliverables in Progress

2024: Sub-awarded development.

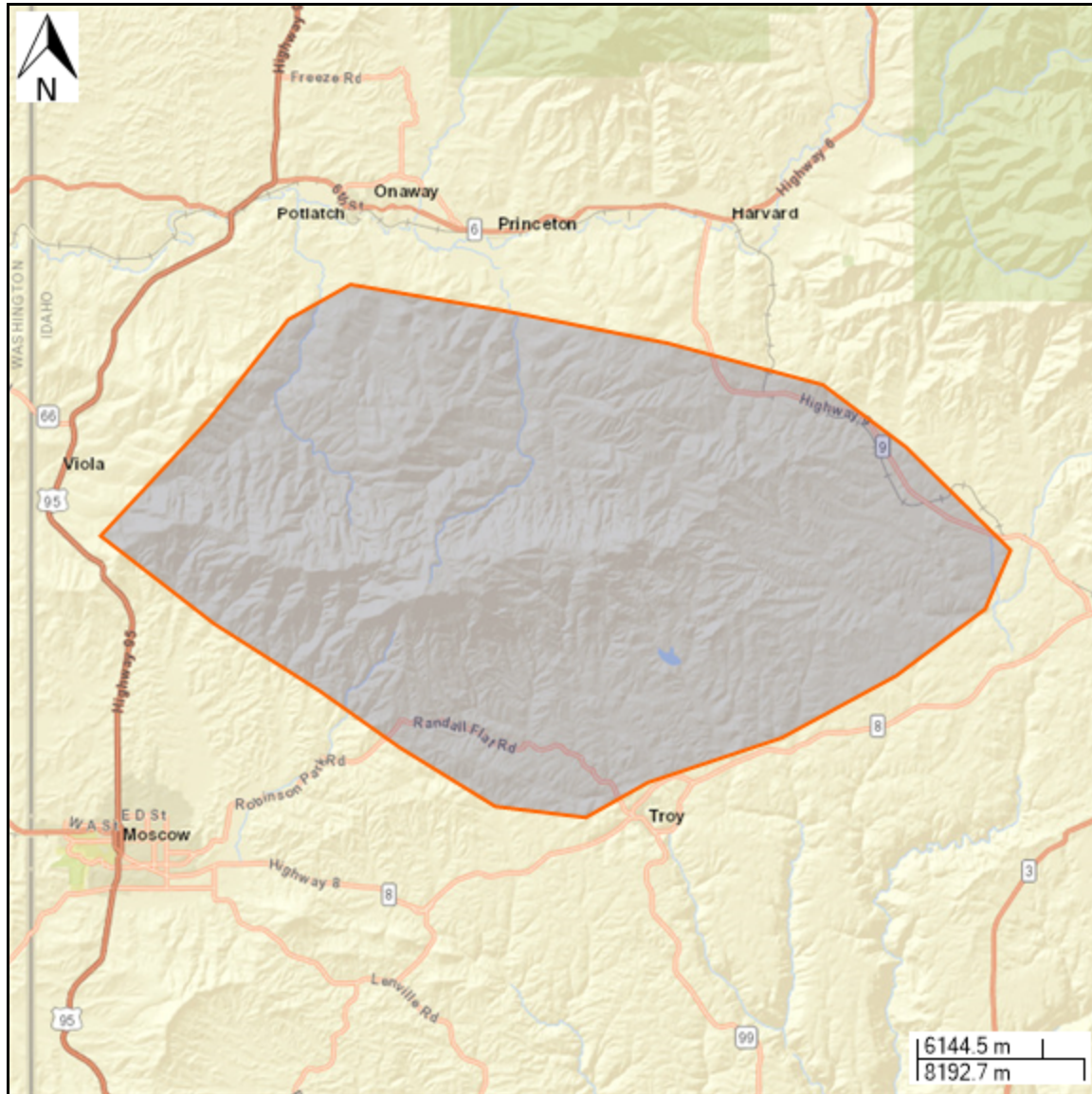
Challenges

2024: none

Landscape Scale Restoration Project Report



Impact Area



Information Last Updated
11/14/2024