Project Manager Report Approval Form

Purpose: Document public dollar investment to protect and restore healthy watersheds and natural habitats that support thriving communities and strong economies.

Date of Report: 12-18-2023 **Grant #** 220-8205-18750 **Project Manager** Coby Menton

Report type: PISR # 1 Progress # Quarterly # Other:

CHECK LIST	If NO, Explain
1. Review requirements noted in Special Conditions (Exh B) of the grant agreement to identify additional and/or different reporting requirements. Did Grantee meet these requirements? ☒ Yes ☐ No ☐ N/A	☐ **Progress Report** indicates grantee will not be able to meet project objectives described in grant scope of work. ☐ **PISR** special conditions were not met. ☐ **Other:** **Explain Why:**
2. Review PISR requirements noted in Exhibit D of the grant agreement. Did Grantee meet these requirements? ☒ Yes ☐ No ☐ N/A	☐ **PISR report** does not provide sufficient documentation to determine the status of OWEB investment. ☐ **Other:** **Explain Why:**
3. Photo points: Did Grantee fulfill the requirements for photo point monitoring (i.e. before and after photos located at consistent photo points, including a current photo)? ☒ Yes ☐ No ☐ N/A	☐ Photo points do not include all major project components. ☐ Photo points do not include project locations on each landowner site. ☐ Grantee is unable to locate photo point(s). ☐ Grantee is unable to access photo point location. ☐ Other: **Explain Why:**
4. Other requirement(s):	**Explain Why:**

REPORT APPROVAL

☐ **Progress report** demonstrates a trajectory for success in meeting project objectives. If not, report sufficiently indicates Grantee is taking action to increase likelihood for project success.

☒ **PISR** sufficiently describes project status to determine OWEB investment is in place and functioning as intended. If not, report sufficiently documents why, so as to inform future OWEB decisions.

Justification: Briefly explain how you resolved issues documented in the checklist and/or attach relevant communications. If you need more room, continue on reverse side.

Report Approved By:  Date: 2023.12.19 11:24:33-08'00' **Date**

Project Manager Signature

Post-Implementation Status Report #1:

1. **An assessment of whether the Project continues to meet the goals specified in the Grant Agreement.**

   The goal of this restoration was to improve and enhance aquatic conditions in Catherine Creek to support rearing spring Chinook salmon, summer steelhead, and bull trout. The final design incorporated the landowners management needs with the project goals to address limiting factors through the project reach. The intent of project construction was to increase the quantity and quality of juvenile salmonid rearing habitat through the development and the enhancement of deep thermally stratified pools by the integration of large wood and promotion of riparian vegetation.

   The goals were achieved through objectives of; 1) Increase the number of large wood pieces and jams. 2) Increase the quantity and quality of habitat diversity. 3) Increase juvenile rearing habitat. 4) Increase the number and depth of pools. 5) Increase stem density (number per area) of native shrubs and trees.

   This project addressed one of the largest deficiencies in the lower reaches of Catherine Creek, the lack of functioning large wood. Project construction increased the number of key members of large wood per mile by almost 500%. The project added large wood to four existing pools and greatly enhanced cover and flow diversity. In addition, the project created one large pool that mimics the existing pool upstream to provide excellent habitat for both summer and winter. The completed project stabilized the banks in two locations by adding logs with rootwads. This will decrease sedimentation and provide low velocity refuge. The completed project construction for CC-38 positively impacted salmon, steelhead, and bull trout by greatly improving their habitat throughout the project reach. The project enhanced four existing pools with the addition of large wood and created a fifth large pool at a tortuous meander bend with a large, engineered wood structure. The project improved sediment routing through the project reach increasing bar formation. This will increase the hyporheic exchange and create cold water refugia. In addition, the project design will have water quality benefits by decreasing the supply of fine sediment into the stream.

   Two floodplain benches were created to improve floodplain connectivity and aid in riparian vegetation establishment. The site had 850 willow stakes planted during construction. An additional 310 one gallon trees and shrubs were planted in the fall as well as 372 plug species. There was 0.23 acers of riparian habitat reseeded with a native seed mix and 3 acers of uplands disturbed during construction was reseeded with an upland non irrigated pasture mix.

   All components of the of the project continue to meet the goals and objectives specified in this grant agreement.

2. Information or materials required by the Grant Agreement Exhibit B Conditions of Agreement.

The First Payment: Map, Photo Points and Federally Negotiated Indirect Cost Rate were all submitted prior to the project construction.

Post-Implementation Status Reporting: Effectiveness Monitoring:

The District works primarily with project partners to collect project effectiveness monitoring data. These partners include Oregon Department of Fish and Wildlife (ODFW), the Grande Ronde Model Watershed (GRMW), the Columbia River Intertribal Fish Commission (CRITFC), and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). The District staff have engaged in several conversations with these project partners aimed at increasing our understanding of Chinook and steelhead populations through the project reach. Currently, a significant monitoring effort is focused lower down in the Catherine Creek basin where juvenile Chinook mortality is highest. This focus has drawn both funding and research man power. As of this reporting, there has been no funding identified for surveys in the project reach. ODFW research staff have indicated some interest in conducting dive surveys in the future.

3. A description of any maintenance or modifications made since Project completion or since the last Status Report, whichever was last.

No significant modifications to the project design have been made post construction. Maintenance plans that were put in place prior to project construction consisted of additional seeding and additional willow stake planting if survival fell below stated targets.

Post construction weather conditions made seeding disturbed areas very challenging. The fall was one of the driest on record at the project site leading to a later than expected seeding of disturbed areas. Early frosts prevented the District from being able to harrow the seed in post seeding. During the site visits in the spring of 2023 District staff determined that riparian areas were meeting target goals, but the upland disturbed areas fell below those goals. The landowner agreed to use their drill to overseed the disturbed upland areas in May of 2023. During site visits in the summer of 2023, the upland grass stocking in the uplands exceeded target goals.

The trees, shrubs, and willow stakes planted had a very high success rate over the first winter. The addition of natural revegetation of mainly young cottonwoods has also aided in exceeding stocking goals for the site. During the summer of 2023 a small

area of bank instability was identified. In the fall of 2023 District staff harvested and planted an additional 300 willow stakes in this area. Vegetation establishment will continue to be monitored over the next three years and action will be taken if a need arises.

4. **An accounting of any costs associated with Project maintenance and reporting to the Board.**

   No additional costs associated with project maintenance for OWEB were accrued during the post project monitoring to date. A total of $375 has been spent on photo monitoring and reporting as of this reporting. In addition, in-kind seeding and planting work was provided at $750.

5. **A summary of any public awareness activities related to the Project undertaken since Project completion or since the last Status Report, whichever was last.**

   The project was featured in the Union SWCD 2021-2022 Annual Report and Newsletter and was viewed by many residents of the Grande Ronde valley.

6. **Lessons learned, if any, from the Project.**

   There were no significant lessons learned during this project.

7. **Unless otherwise specified, the Grantee will provide color photos of all Project elements (i.e., fencing, planting, or structures) to show compliance of the Project with the Board funding decision. Photo points will be set up, and the color photographs should be taken with the same focal-length lens at the same time of year, showing conditions before and after Project completion. Guidelines for photo point documentation are provided on the OWEB website at: https://www.oregon.gov/OWEB/ "Resources" then "Field & Technical Guide11 then choose 11Photo Point Monitoring".**

   Photo points are provided in a separate document that is attached to this report.

Catherine Creek RM 38 Fish Habitat Restoration

Union Soil & Water Conservation District

Photograph Monitoring Points

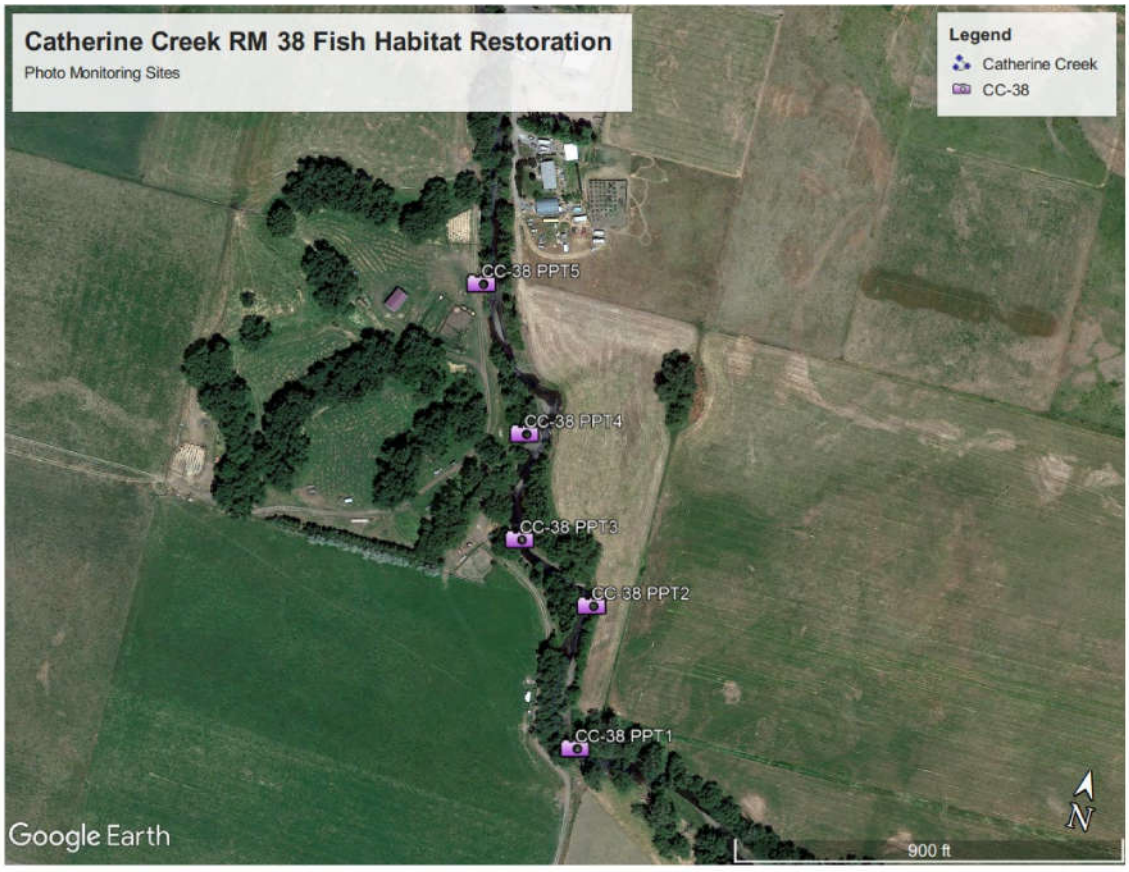
December 18, 2020

Permanent photographic monitoring points have been established around Catherine Creek RM 38 to monitor visual changes of the Catherine Creek RM 38 Fish Habitat Restoration site (CC-38). A total of 5 locations have been monumented with steel t-posts and 5 photographs were taken (Table 1). A latitude and longitude are documented for each monumented location and a compass bearing for each photograph is noted (map datum WGS 84). Pre-project photographs were taken on December 14, 2020 and will be repeated after construction activities are completed and on an annual basis thereafter. The photograph monument locations are shown in Figure 1.

Table 1. Monumented photograph points for the CC-38 Fish Habitat Restoration Project.

Monument Location	Photo Point	Latitude	Longitude	Bearing
1	1	N 45°12'36.82"	W 117° 53'47.84"	300
2	2	N 45°12'40.24"	W 117° 53'48.74"	330
3	3	N 45°12'41.11"	W 117° 53'51.33"	325
4	4	N 45°12'443.77"	W 117° 53'48.52"	348
5	5	N 45°12'46.53"	W 117° 53'54.68"	132

Figure 1. Catherine Creek RM 38 Photograph Monitoring Point Locations.



Photographic Monitoring Points

Figure 2. Catherine Creek RM 38 Photopoint #1 at a bearing of 300 degrees, pre-project December 14, 2020.

Figure 3. Catherine Creek RM 38 Photopoint #1 at a bearing of 300 degrees, post-project October 18, 2022.

Figure 4. Catherine Creek RM 38 Photopoint #1 at a bearing of 300 degrees, post-project November 16, 2023.

Figure 5. Catherine Creek RM 38 Photo point #2 at a bearing of 348 degrees, pre-project June 20, 2023.

Figure 6. Catherine Creek RM 38 Photo point #2 at a bearing of 325 degrees, post-project October 18, 2022.

Figure 7. Catherine Creek RM 38 Photo point #2 at a bearing of 325 degrees, post-project November 16, 2023.

Figure 8. Catherine Creek RM 38 Photo point #3 at a bearing of 325 degrees, pre-project December 14, 2020.

Figure 9. Catherine Creek RM 38 Photo point #3 at a bearing of 325 degrees, post-project October 18, 2022

Figure 10. Catherine Creek RM 38 Photo point #3 at a bearing of 325 degrees, pre-project November 16, 2023.

Figure 11. Catherine Creek RM 38 Photo point #4 at a bearing of 348 degrees, pre-project June 20, 2022.

Figure 12. Catherine Creek RM 38 Photo point #4 at a bearing of 348 degrees, post-project October 18, 2022.

Figure 13. Catherine Creek RM 38 Photo point #2 at a bearing of 348 degrees, post-project November 16, 2023.

Figure 14. Catherine Creek RM 38 Photo point #5 at a bearing of 132 degrees, pre-project December 14, 2020

Figure 15. Catherine Creek RM 38 Photopoint #5 at a bearing of 300 degrees, post-project October 18, 2022.

Figure 16. Catherine Creek RM 38 Photopoint #5 at a bearing of 300 degrees, post-project November 16, 2023.