

#### Project Manager Report Review Protocol Post-Implementation Status, Interim Progress, and Quarterly Reports

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

Date of Report 3/23/2016 Grant No. 21	12-2065 Report #2 Project Manager Mark			
Type: ☐ Progress/Quarterly ☐ PISR ☐ Other:				
CHECK LIST	If No, Explain			
1. Review Special Conditions (Exhibit B) to identify additional 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 application (e.g. landowner no longer allowing access).  Other:  Explain:			
<ul> <li>2. Review PISR requirements (Exhibit D). Did Grantee fulfill these requirements?</li> <li> ☐ Yes</li> <li>☐ No</li> <li>☐ N/A</li> </ul>	☐ PISR does not provide sufficient documentation to determine status of OWEB investment. ☐ Other: Explain:			
3. Photos: Did Grantee fulfill the requirements for photo point monitoring described in the grant agreement (i.e. before and after photos located at consistent photo points and includes a current photo)?  Yes  No N/A	<ul> <li>□ Photo points do not include all major project components.</li> <li>□ Photo points do not include project locations on each landowner site.</li> <li>□ Grantee is unable to locate photo point(s).</li> <li>□ Grantee is unable to access photo point (e.g. not safe or no landowner approval).</li> <li>□ Other:</li> <li>Explain:</li> </ul>			
4. Other requirement:	Explain:			
increase likelihood for project success.  PISR sufficiently describes project status to determine why to inform future OWEB decisions.	n meeting project objectives. If not, report sufficiently indicates Grantee is taking action to  OWEB investment is in place and functioning as intended. If not, report sufficiently documents  and issues documented in the checklist table and/or attach relevant communications):			
Report Approved By: Project Manager Signature	3/23/2016			

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# Partnership for the Umpqua Rivers



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# Hall Ranch Restoration Phase II

OWEB Project # 212-2065-9342
Second Post-Project Monitoring Report
Exhibit D



March 7, 2016

Rengt 3/23/2016

#### Background

South Fork Deer Creek and Hoot-n-Holler Creek run across the Hall Ranch. These streams are designated as high intrinsic coho spawning and rearing habitat. Coho, winter steelhead, resident cutthroat, brook lamprey, Pacific lamprey and other native fish live, spawn and rear in these streams. ODFW biologists have assessed the streams and noted that they do not provide adequate summer pool habitat or winter flood refuge, the two biggest threats to juvenile fish survival.

The instream habitat has become simplified. The loss of instream wood in South Fork Deer Creek and its tributaries changed the functioning components of the riparian zone and instream habitat. Pools and riffles were lost and the creeks became like ditches. Livestock had access to the many unfenced riparian areas. This has resulted in the lack of variety of native plants. Down cutting of stream channels through soft valley soils lowered the water table and altered the hydrology of South Fork Deer and Hoot-n-Holler creeks.

The Umpqua Basin Watershed Council (UBWC) Deer Creek Watershed Assessment (1999) and the Umpqua Basin Action Plan (2007) revealed a lack of adequate large woody material and poor quality pools throughout Deer Creek and its tributaries. In addition to issues with stream morphology, this watershed has been documented to have poor riparian vegetation, poor water quality and limited water quantity.

#### **Project Description**

Project work completed on the Hall Ranch between 2009 and 2013 restored a portion of the South Fork Deer Creek drainage. Over multiple phases, the family worked with PUR to restore streams, build livestock exclusion fence, fight a winning battle against riparian blackberry dominance and remove and replace multiple culverts on the ranch. The volume of work completed on one ranch is enormous and was only possible due to the involvement of the Hall family.

This grant funded instream work in Hoot-n-Holler and South Fork Deer creeks. Because of the timing of other regular ranch activities that happen in the late spring and summer, like putting up hay, the available time for project work per season was lessened and the project was completed over two summers.

During 2012, 88 trees were tipped over with rootwads attached, cut to a manageable 40' and 50' lengths and staged at Hoot-n-Holler and South Fork Deer creeks. This was no small task and the trail left by dragging some of the trees looked like a plow had come down the hill. Fences were taken down and cows were moved to other fields to get this work done. An additional 37 large diameter 50' logs were also staged for placement. ODFW Biologist Dan Jenkins directed the placement of 102 of the logs/trees, 155 boulders and 10 stumps into the creeks. By the time this work was complete, the end of the in-water work season had come.

During 2013, project work was completed. Six additional whole trees were pulled from the hillside and placed in South Fork Deer Creek. An additional 25 logs were donated by the ranch and placed with 180 boulders and 23 logs (purchased and staged in 2012)

in South Fork Deer Creek. An additional 6 whole trees were purchased and 25 logs were donated beyond what was described in the grant application. In total, over the two years, 94 logs and trees with attached rootwads, 62 cut logs, 10 stumps and 335 boulders were placed in the two creeks.

#### Changes to original proposal

An additional 6 whole trees were purchased and 25 logs were donated beyond what was described in the grant application.

#### Lessons Learned

Although PUR and ODFW biologists often wish we could use whole trees or logs with rootwads still attached to them, it is very difficult and time consuming to push the tree over and stage it for placement. Even more difficult is the placement of these materials. This work on the Hall Ranch was only possible because the landowner had enough equipment to move these trees and logs around. Most importantly, the landowner used a log loader, which is much larger and able to pick up more weight than PUR's typical excavators. It is costly and time consuming to use these materials, but worth the effort.

#### **Meeting Goals**

This project work restored over one mile of instream habitat in Hoot-n-Holler and South Fork Deer creeks. Both creeks are located on the 1,700-acre Hall Ranch near Dixonville in the Deer Creek Watershed. This is the second phase of restoration work on the ranch and follows a highly successful first phase where: 6 culverts were replaced with bridges; 110 trees were placed to improve fish habitat; four off-channel stock tanks were constructed; and one mile of riparian fence was erected to exclude cattle. Hall Ranch Phase 2 project work included the placement of 75 trees, 30 boulders and 10 stumps into Hoot-n-Holler Creek upstream of Phase I project work. We also placed 305 boulders and 50 trees into South Fork Deer Creek. This work completed fish habitat restoration on the ranch. Fish present include Oregon Coast coho salmon, winter steelhead, resident cutthroat trout, Pacific and brook lamprey and other resident nongame fish.

This project met its expected outcomes by the creating high quality riparian habitat with summer pools and winter high water refuge. A great deal of gravel was retained in the restoration reaches as well.

#### South Fork Deer Creek:

Both sites are performing as expected from the original design. By the third winter since project completion, all of the original logs remain in place and quite a bit of debris is being captured by the structures which is adding to the structures function and complexity. Good scouring was observed as well as covered pools at the structure sites, making for excellent rearing habitat. Gravel is accumulating above all of the structures in this reach, creating additional spawning opportunities and increasing habitat diversity. See Figures A1-A4 and B1-B4.

#### Hoot-n-Holler Creek:

Gravel accumulation in this tributary is very impressive. The channel has become much more complex with increased sinuosity, covered pools, large riffles and spawning gravel in areas once dominated by bedrock. Juvenile salmonids were observed during the spring of 2015 throughout Hoot n Holler project reach. See Figures C1-4 and D1-3.

### **Maintenance and Modifications**

No maintenance or modifications have been needed.

#### Costs

Since no maintenance or modifications were required with this project, there were no additional costs. Costs were incurred for the site visit to take photos as well as to write the report.

Category	Unit Number	Unit Cost	Total
Travel	29 miles	0.56/mile	\$ 16.24
Staff Time Monitoring	5 hours	\$51.55/hour	\$ 257.75
Staff Time Report	3 hours	\$30/hour	\$ 90.00
		Total:	\$ 363.99

### **Public Awareness**

The Hall family is very private, but has graciously allowed PUR to bring OWEB review teams out for tours to show the project work implemented on the ranch and hope to encourage others in the Deer Creek area to implement similar project work.

# **Photo Points**

Project Site A. South Fork Deer Creek



Figure A1. Looking downstream at Site A prior to project implementation.

Pre-project: 08/02/2013



Figure A2. Looking downstream at Site A immediately after logs were placed.

Post-project: 08/02/2013



Figure A3. Looking upstream at Site A. Post-project: 02/23/16

Figure A4. Close-up of Site A. Post-project: 02/23/16

The structure is collecting gravel and making excellent pocket habitat. A log from an upstream site, Site B, has been recruited into this sight (light colored log, closest in photos). This site is seeing positive effects and interaction with the site just upstream.

#### Project Site B. South Fork Deer Creek



**Figure B1.** Looking upstream at Site B prior to implementation.

Pre-project: 08/02/2013



**Figure B2.** Looking upstream at Site B immediately after logs were placed.

Post-project: 08/02/2013



**Figure B3.** Looking upstream at Site B, 3 winters following implementation.

Post project: 02/23/16



Figure B4. Close up of Site B. Post project: 02/23/16

Site B is immediately upstream of Site A. This site has had some logs shift around. Notice the large log suspended on top of the structure. PUR and ODFW are strategizing on the next step for this site. The pool and cover habitat around the structure is excellent. The site is gathering a large amount of debris from upstream which will add to the complexity and the dymnamic nature of this site over time. The deep pools will provide excellent habitat for juvenile salmonids.

# Project Site C. Hoot-n-Holler Creek



**Figure C1.** Looking upstream at Site C prior to implementation.

Pre-project: 08/16/2011



**Figure C2.** Looking upstream at Site C following log placement.

Post-project: 02/25/2014



Figure C3. Looking upstream at Site C. Post-project: 02/23/16

Figure C4. Close up of Site C. Post-project: 02/23/16

Site C is located on Hoot-n-Holler Creek, a tributary to South Fork Deer Creek. This site has continued to aggrade gravel on the upstream side of the structure. Upstream of the site, the channel has widened and become more sinuous and less incised. Gravel aggradation throughout the reach has been impressive.

# Project Site D. Hoot-n-Holler Creek

#### Photo



#### Description

**Figure D1.** Looking upstream at site D prior to implementation.

Pre-project: 08/16/2011



Figure D2. Looking upstream at Site D two winters following log placement.

Post-project: 03/19/2015



Figure D3. Looking upstream at Site D. Post-project: 02/23/16

This structure has not changed since the last monitoring piture in 2015 (above). There has been gravel retention/accumulation above the site and an increase in habitat complexity below. The structure provides excellent cover for juvenile fish.