

**HOH RIVER TRUST PROPERTIES**  
***CONSERVATION EASEMENT AND LAND MANAGEMENT PLAN***  
***MONITORING REPORT***



*(SPRUCE CREEK UNIT, OCTOBER 29, 2010)*

**MONITORING REPORT**  
**FOR**  
**FALL 2010**

LEAD MONITOR: ERIK KINGFISHER

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**DATE OF MONITORING VISIT:** October 29, 2010  
**DATE OF MONITORING REPORT:** November 5, 2010

## **INTRODUCTION**

This report has been prepared in order to document changes in the current features, conditions, and natural resources of the Hoh River Trust properties in Jefferson County (the “Property”, also referred to by Property unit name) in relation to the values, rights and uses specified in two Grant Deeds of Conservation Easement and the Hoh River Trust Land Management Plan.

Since November 2007, Jefferson Land Trust (JLT) has performed stewardship activities for the Hoh River Trust (HRT). In accordance with the original 2007 stewardship agreement between JLT and HRT, and with the recommendations set forth in the 2008 stewardship agreement report, a site visit by JLT representatives was conducted on October 29, 2010. JLT representatives performed a site visit to two HRT forest units demonstrating recently completed restoration activities. This report documents conditions observed during this site visit.

HRT recently acquired an additional approximately 2,286 acres<sup>1</sup>. Conservation easements were purchased on these new properties by the Washington State Department of Natural Resources on September 25, 2009 and May 10, 2010. These new properties will be incorporated into the existing management plan in coordination with the USFWS.

Photographs were taken using a NIKON N60 Digital Camera. GPS coordinates were recorded with a Garmin GPS Map 60 CSX GPS unit using UTM Zone 10N NAD 83, with an accuracy of 3-10 meters. The maps was produced by JLT using ArcView 9.3 GIS software. Basemap data includes 2009 color aerial imagery from the USDA NAIP data, and 2008 Jefferson County assessor’s parcel lines. Parcel boundary data is approximate.

JLT Stewardship Director Erik Kingfisher, JLT Board President Owen Fairbank, and JLT Americorps Stewardship Coordinator Anna Sample conducted the October 29, 2010 site visit. HRT Director of Land Management Mike Hagen was also present. Erik Kingfisher wrote this monitoring report, took all photos, and prepared all JLT maps.

## **MONITORING OBJECTIVES**

The primary purpose of this visit was to observe and document the conditions of sites subject to active management recently undertaken on the property. In addition, observations were made in relation to the implementation of the management plan, and to the conservation easement terms and conditions. The objective of this monitoring and documentation is to provide evidence that helps determine if the land is being managed according to the conservation easement and the stated Management Objectives and Strategies in the HRT Land Management Plan.

Other objectives included orienting JLT with the distribution of the newly acquired properties using maps, and identifying them from adjacent properties and roads. Active management of the new properties by HRT has not begun, and inspection of these new properties was not an objective for this site visit.

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<sup>1</sup> GIS calculation based on tax parcel numbers. Tax parcel numbers provided by HRT.

**EVIDENCE OF MANAGEMENT PLAN IMPLEMENTATION OBSERVED:**  
**OCTOBER 29, 2010**

**SPRUCE CREEK UNIT – POLE CREEK BRIDGE PROJECT**

The county road, Upper Hoh Road, intersects several HRT properties and has a long history of winter storm damage, failed culverts, and other challenges. A site of particular concern identified by the Pacific Coast Salmon Coalition (PCSC) and the HRT, among others, has been the Pole Creek culvert under the county road. The culvert had failed and presented a total fish blockage. In late summer HRT and PCSC removed the culvert and replaced it with a 55 foot cement bridge (see Appendix I). The project included establishing a bypass road for regular traffic while the bridge construction commenced. Surrounding trees with suitable marbled murrelet nesting habitat were inspected for active nests prior to construction. Once the bridge was complete, woody debris was placed in the stream, and the bypass road was thoroughly decommissioned and naturalized. A Forks High School Natural Resources class participated in the replanting and naturalizing of the decommissioned bypass road site and other exposed gravel sites resulting from the bridge construction.

Post-construction conditions were observed during the site visit. Stream conditions appeared favorable for fish passage, including sufficient woody debris in the channel helping to create pools. Construction site impacts appeared very well restored: gravel imported for the bypass road had been removed; sufficient woody-debris had been strategically scattered on the bypass road site and other construction impacted areas to restore habitat values and limit erosion potential; and a natural distribution of mature native plants were transplanted to the site, making it difficult to even determine where the bypass road was located and where other construction impact areas were.

**MANAGEMENT PLAN MONITORING:**

The bridge construction and culvert removal project is intended to provide access to historic spawning and rearing habitat in Pole Creek for Coho and Steelhead salmon, and other resident fish species. Calculations by HRT estimate that 6 miles of stream habitat were opened as a result of this project.

Specifically, this activity is consistent with: Management Objective 1: Increase Habitat Connectivity and Reduce Habitat Fragmentation; Management Objective 3: Protect and Preserve Endangered Species, categories a., d., and e.; and Management Objective 5: Pursue Community Outreach and Education.

**CONSERVATION EASEMENT MONITORING:**

Page 3 of the conservation easement, Section 1. Use (1) specifically identifies maintenance, replacement, relocation and removal of existing roads, culverts or other improvements as a reserved right.

There were no other observed conditions of the lower Pole Creek section of the Spruce Creek Unit property indicating significant change from the conditions described in the “Baseline Inventory Report”, or from previous monitoring reports.

### **SPRUCE CREEK UNIT – UPPER POLE CREEK BASIN PRE-COMMERCIAL THINNING**

Approximately 135 acres of the northwest portion of the Spruce Creek Unit were thinned this spring. The project was focused on removing spruce-tip weevil infested trees, while saving hardwoods and other non-planted native trees, particularly western red cedar, to increase the diversity of the stand. Evidence of the thinning project was observed from Spruce – 1100 road. As a spruce plantation, the primary remaining tree species continued to be Sitka spruce in an even spacing. Several young cedar trees were observed among the site, as well as alder, western hemlock, and willow species which appeared to be deliberately retained as part of the thinning project. Small openings could also be observed from the road, intended to improve structural diversity of the forest and wildlife habitat conditions.

#### **MANAGEMENT PLAN MONITORING**

The thinning project was focused on releasing the healthiest of the trees from competition, accelerating growth and the rate at which mature forest characteristics could be achieved.

Specifically, this activity is consistent with: Management Objective 2: Develop and Maintain Late Seral/Old Growth Forest Stands; and Appendix D. Forest Management Plan, Spruce Creek Bottom/Owl Creek.

#### **CONSERVATION EASEMENT MONITORING:**

Page 3 of the conservation easement, Section 1. Use (1) specifically identifies activities related to the protection, preservation, monitoring, restoration and enhancement of the forest as consistent with the purpose of the conservation easement.

There were no other observed conditions of the Upper Pole Creek Basin Pre-Commercial Thinning project area indicating significant change from the conditions described in the “Baseline Inventory Report”, or from previous monitoring reports.

### **SPRUCE CREEK UNIT – UPPER POLE CREEK BASIN ROAD DECOMMISSIONING AND CULVERT REMOVAL PROJECT**

In the Upper Pole Creek Basin, approximately 2,950 feet of orphaned old logging roads, and 10 culverts that had been plugging annually with debris were addressed this year. The plugged and collapsing culverts were presenting the danger of total road failure/washout during storm events, potentially sending tons of habitat destroying fine sediment downstream. The surrounding forests that the decommissioned roads serviced had been managed to a natural recovery state, with no further planned thinning or harvests in the future, and therefore the roads were no longer needed.

The old roads were observed to be decommissioned using woody-debris to cover the road-bed, increasing the nutrients and conditions needed for natural plant propagation and manual planting. At culvert removal sites, the road fill had been excavated above and around the stream channel. The original stream gradient appeared to be restored and the removed road fill was placed on the nearby decommissioned roadbed, while exposed stream banks were hayed and grass seeded. Woody-debris was placed in the stream

channel and all along the decommissioned road bed. Native tree planting on portions of the decommissioned road is planned to take place this winter.

#### MANAGEMENT PLAN MONITORING

The road decommissioning and culvert removal project had multiple goals, primarily focused on improving fish habitat and preventing future impacts to critical fish habitat downstream. The project reduces habitat fragmentation for rearing fish species, and prevents sediment loading in downstream habitat in the event of culvert failure.

Specifically, this activity is consistent with: Management Objective 1: Increase Habitat Connectivity and Reduce Habitat Fragmentation; Management Objective 3: Protect and Preserve Endangered Species, categories d., and e; and Appendix D. Forest Management Plan – Spruce Creek Bottom/Owl Creek.

#### CONSERVATION EASEMENT MONITORING:

Page 3 of the conservation easement, Section 1. Use (1) specifically identifies activities related to the maintenance, replacement, relocation and removal of existing roads, culverts or other improvements as consistent with the purpose of the conservation easement.

There were no other observed conditions of the Upper Pole Creek Basin section of the Spruce Creek Unit property indicating significant change from the conditions described in the “Baseline Inventory Report”, or from previous monitoring reports.

#### **SCHMIDT BAR – INVASIVE SPECIES REMOVAL**

The old homestead site and surrounding forest has undergone dramatic change in the past year due to a major shift in the river channel. The river channel moved at least 1,500 feet, removing approximately 15 acres of riparian forest from the northern section of the Schmidt Bar Unit near the old homestead. The remaining old homestead area has also been managed for the removal of invasive blackberry plants using a small excavator, and for the removal of Canada thistle using a bio-control. Direct results from the removal project were observed, with large populations observed during previous monitoring visits no longer present. New plants were observed sprouting from seed and root fragments in and around the management areas. Due to the perennial nature of the Canada thistle, the results of the bio-control management were not observed, and will be assessed in the coming growing season.

#### MANAGEMENT PLAN MONITORING

The invasive species treatments are focused on improving wildlife habitat, particularly elk and other large mammal habitat in the forest openings.

Specifically, this activity is consistent with: Management Objective 1: Increase Habitat Connectivity and Reduce Habitat Fragmentation; Management Objective 3: Protect and Preserve Endangered Species, categories d., and e; and Appendix D. Forest Management Plan – Schmidt Bar.

**CONSERVATION EASEMENT MONITORING:**

Page 3 of the conservation easement, Section 1. Use (1) specifically identifies activities related to the removal of non-native or invasive species as consistent with the purpose of the conservation easement.

There were no other observed conditions of the Schmidt Bar section of the Spruce Creek Unit property indicating significant change from the conditions described in the “Baseline Inventory Report”, or from previous monitoring reports.

**OTHER ACTIVE MANAGEMENT**

According to HRT monthly reports, and communications with HRT Director of Land Management Mike Hagen:

Pre-commercial thinning work at the Spruce Creek Unit documented and observed in the November 2008, Summer 2009, and Fall 2009 monitoring reports, has completed. A portion of the slash within 200 feet of the roads of this thinning project, as well as the thinning project in Upper Pole Creek Basin, will be removed from site in order to reduce fire hazard. This removed slash will be chipped on site and hauled away for use as biomass.

Additional thinning on approximately 100 acres in the northeastern section of the Spruce Creek Unit was also completed this year (bringing the total thinning acreage in the Spruce Creek Unit this year to 235 acres). This units pre-commercial thinning priorities have now been completed.

Invasive Knotweed removal has continued on HRT properties, and other public and private land, by crews managed by the 10,000 years institute.

A Forks High School Natural Resources class helped plant hundreds of small hemlocks, alder and cedar at the road HRT decommissioned two years ago off the oil City Rd.

Contractors using a tractor mower worked this year on brush mowing along roads in the “Y” system near Nolan Creek 2 unit (primarily for Scot’s broom), as well as all the roads in the Spruce Creek Unit (primarily for blackberry).

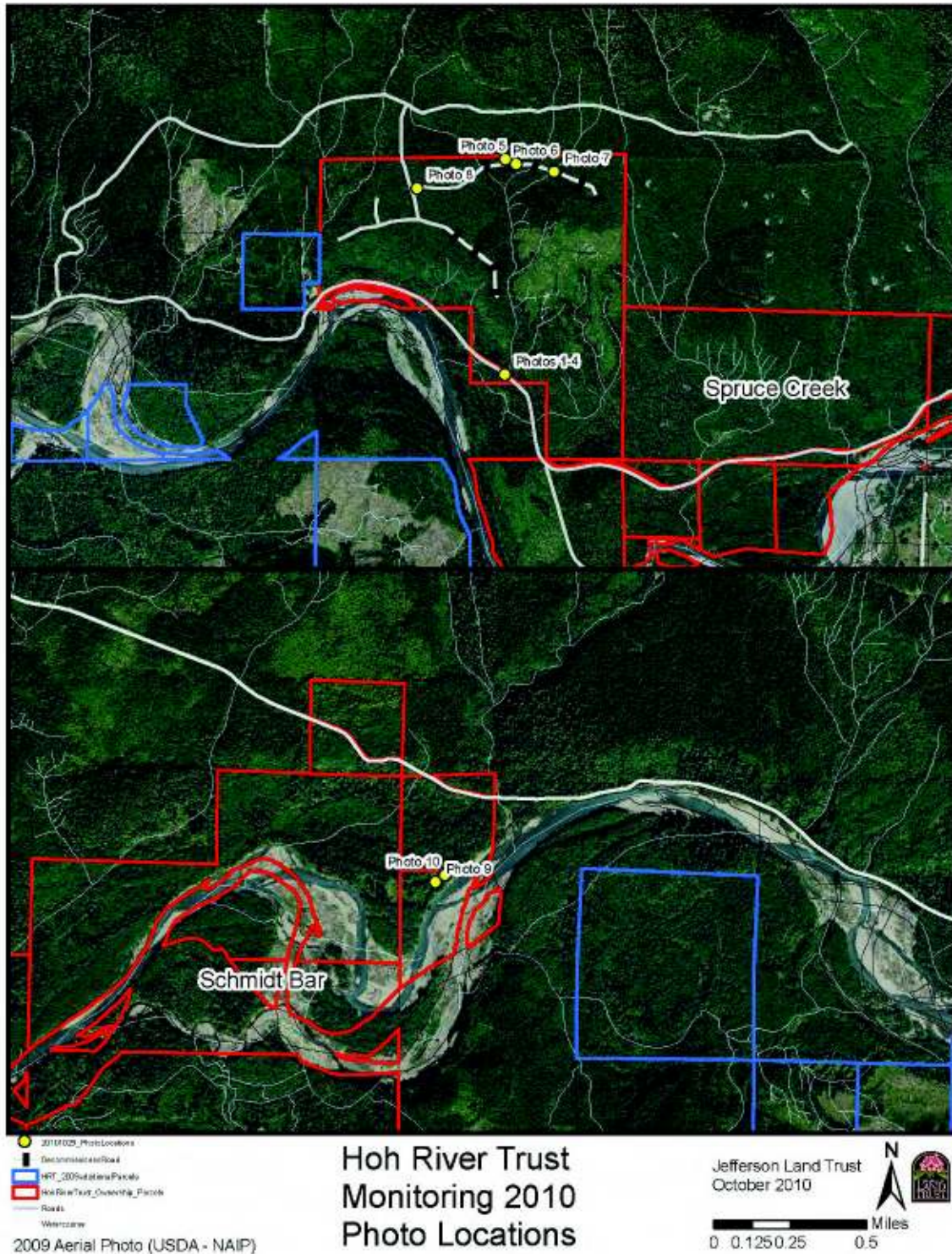
A gravel pit within the Spruce Creek Unit, in the vicinity of Pole Creek, has also been decommissioned. The gravel pit was left by previous owners with a dangerous (illegal) vertical wall, as well as hazardous run-off and erosion. The slope has been returned to a stable 40 degrees, it has been ditched with run-off draining away from water courses, and it has been seeded with a sterile rye grass.

**CONCLUSIONS**

The activities and sites monitored appear to be in full compliance with the conservation easement terms as well as the HRT Land management Plan. No significant changes were observed other than those identified in this report.

## Appendix I - Photographs

1. Photo Location Map
2. Photo Description Form
3. Photographs 1-10



## PHOTO DESCRIPTION FORM

**Project Name:** Hoh River Trust Stewardship Agreement

**Report:** Monitoring Report 2010    **Date:** October 29, 2010    **Photographer:** Erik Kingfisher

**Camera ID:** Nikon D60    **Lens (mm):**18mm    **DIGITAL - prefix:** DSC\_

**Compass:** True North

Frame #	Photo taken at a		Location:	Facing: *	P or L	Report Photo Number and Scene Description:
	Photo-point?	Project feature?				
6835		Pole Creek Bridge	Upper Hoh Road, Pole Creek Crossing. West side of new bridge	SSE	L	Photo 1. Site of Upper Hoh Road bypass used during bridge construction and decommissioned and naturalized with woody-debris and relocated live mature plants post-construction.
6836		Pole Creek Bridge	Upper Hoh Road, Pole Creek Crossing. Standing on restored bypass road site, facing upstream.	NE	L	Photo 2. New Upper Hoh Road cement bridge over Pole Creek, in HRT's Spruce Creek Unit.
6840		Pole Creek Bridge	Upper Hoh Road, Pole Creek Crossing. East side of new bridge.	WNW	L	Photo 3. Site of Upper Hoh Road bypass used during bridge construction and decommissioned and naturalized with woody-debris and relocated live mature plants post-construction.
6841		Pole Creek Bridge	Upper Hoh Road, Pole Creek Crossing. Standing on bridge, facing upstream.	NNE	L	Photo 4. Pole Creek conditions upstream of new bridge, including woody-debris in stream, and naturalized construction area
6842		Upper Pole Creek Basin	Upper Pole Creek Basin. Take DNR-3100 rd near Tower Creek 1.75 miles, take right, and travel 0.25 miles down hill to first intersection (Spruce - 1100 road). Park and walk 0.3 miles.	E	L	Photo 5. Decommissioned upper Pole Creek Basin road, including woody-debris placement.
6844		Upper Pole Creek Basin	Same as above, continue walking on decommissioned road to first culvert removal site.	E	L	Photo 6. Representative culvert removal and road decommission site at tributary to Pole Creek, in Upper Pole Creek Basin.
6846		Upper Pole Creek Basin	Same as above, continue walking on decommissioned road to fourth culvert removal site.	E	L	Photo 7. Representative culvert removal and road decommission site at tributary to Pole Creek, in Upper Pole Creek Basin.
6847		Upper Pole Creek Basin	Upper Pole Creek Basin. Take DNR-3100 road 1.75 miles, take right, and travel 0.25 miles down hill to first intersection - standing on S bank of intersecting road (Spruce-1100 road).	SE	L	Photo 8. Pre-commercial thinning site in Upper Pole Creek Basin forest
6848		Schmidt Bar	Standing on bank, due S of large Spruce	W	L	Photo 9. Extensive new natural erosion of Schmidt Bar unit by meandering river channel.
6849		Schmidt Bar	Standing near bank, due S of large Spruce	SE	L	Photo 10. Invasive blackberry removal site representative conditions.
enter # given by camera	enter PP####, if applicable	enter #, if applicable	Describe where the photographer was standing if photo is not taken from a photopoint OR provide additional relocation information.	N/W/S/E, AZ°, UPS, DNS, LB, RB, etc.	portrait or landscape	"Looking at" - describe feature or subject, position of subject (cntr, top, btm, side), notable landmarks, points of special interest, etc. as applicable.



**Photo 1. Site of Upper Hoh Road bypass used during bridge construction and decommissioned and naturalized with woody-debris and relocated live mature plants post-construction.**



**Photo 2. New Upper Hoh Road cement bridge over Pole Creek, in HRT's Spruce Creek Unit.**



**Photo 3. Site of Upper Hoh Road bypass used during bridge construction and decommissioned and naturalized with woody-debris and relocated live mature plants post-construction.**



**Photo 4. Pole Creek conditions upstream of new bridge, including woody-debris in stream, and naturalized construction area**



**Photo 5. Decommissioned upper Pole Creek Basin road, including woody-debris placement.**



**Photo 6. Representative culvert removal and road decommission site at tributary to Pole Creek, in Upper Pole Creek Basin.**



**Photo 7. Representative culvert removal and road decommission site at tributary to Pole Creek, in Upper Pole Creek Basin.**



**Photo 8. Pre-commercial thinning site in Upper Pole Creek Basin forest**



**Photo 9. Extensive new natural erosion of Schmidt Bar unit by meandering river channel.**



**Photo 10. Invasive blackberry removal site representative conditions.**