NORTH FORK JOHN DAY RIVER BASIN ANADROMOUS FISH HABITAT

ENHANCEMENT PROJECT

Annual Report for February 2012 – January 2014

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ABSTRACT

The Confederated Tribes of the Umatilla Indian Reservation North Fork John Day Anadromous Fish Enhancement Project continued to develop and implement habitat improvements during 2012 and 2013 using guidance from the CTUIR's First Foods and Umatilla River Vision, John Day Subbasin Plan, Mid-Columbia Steelhead Recovery plan, and other plans or management documents which prioritized restoration efforts. Cooperative efforts between private landowners and public entities such as the North Fork John Day Watershed Council, Umatilla National Forest, and Wallowa-Whitman National Forest prioritized, designed, and implemented specific habitat restoration efforts. During this period the project worked to complete the 2013 I.S.R.P proposal, control noxious weeds, maintain previously constructed structures, collected monitoring data, began a coordination effort to address sediment deposition in Ukiah, Oregon, worked to complete a Physical Habitat Monitoring Plan for the CTUIR Fisheries Habitat Program, supported an effort for public outreach related to historic mining activities and efforts to address their influence upon terrestrial and aquatic habitat, improved a landowners capacity to drain effluent from the Red Boy Mine by replacing a pipeline directing flows into treatment ponds, improved in-stream habitat complexity in Fox Creek, replaced four passage barriers, stabilized streambanks along 0.35 miles of Granite Creek, and construct approximately 5.75 miles of riparian fence, Contributions toward out-year efforts included input and coordination for several potential efforts within the North Fork John Day River Basin. This report covers both the 2012 and 2013 performances period.

ACKNOWLEDGMENTS

The Confederated Tribes of the Umatilla Indian Reservation wish to thank the Bonneville Power Administration for funding the project and its personnel Jamie Swan, Jenna Peterson, and others for their assistance. We would also like to give thanks to the North Fork John Day Watershed Council for providing a forum for tribal input and promoting the Confederated Tribes of the Umatilla Indian Reservation's habitat recovery efforts; the Umatilla National Forest and its employees (Fishery Biologists Kathy Ramsey and Allison Johnson, Hydrologists Caty Clifton and Ed Farren, Range Managers Tom Thompson and Brad Lathrop, and Tracii Hickman, Ian Reid, Joy Archelueta) and the Wallowa Whitman National Forest and its employees (Hydrologist Suzanne Fouty, Range Manager Teena Ballard, Engineer Brett Yaw, Fisheries Technician Joe Platz) for assistance with cooperative restoration efforts and providing information, the Natural Resources Conservation Service's Lorraine Vogt, and Oregon Department of Fish and Wildlife's Jeff Neal, and Josh McCormick. Thanks also to Confederated Tribes of the Umatilla Indian Reservation staff, whose cooperation and contributions are evident in this report. Special thanks to Delbert Jones in assisting with monitoring efforts and implementing and maintaining improvements, to Julie Burke Celeste Reeves, and Michelle Thompson for administrative support, and Gary James and Jim Webster for support and guidance. We would like to acknowledge cooperating landowners, Lois Hartley Cannady, Don Hartley, Stuart Hartley, Joann Morrison, Steve Berry, Gene and Julia Engblom, Richard and Dorothy Allstott, Brian Prater, Robin, Mary Lou, Andy and Bill Fletcher, and Forrest Rhinehart who supported our efforts by cooperating in habitat enhancements on their property.

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INTRODUCTION

The Confederated Tribes of the Umatilla Indian Reservation's North Fork John Day River Habitat project (the Project) has undertaken the task of protecting and enhancing habitat in the North Fork John Day (NFJD) basin to improve natural production of indigenous species in support of the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR) First Foods. Our efforts are expected to increase juvenile and adult freshwater survival resulting in greater numbers of Endangered Species Act listed Mid-Columbia River Summer Steelhead trout (*Oncorhynchus mykiss*) and Bull trout (*Salvelinus confluentus*) in addition to Spring Chinook salmon (*Oncorhynchus tshawytscha*) and redband trout (*Oncorhynchus mykiss gairdnerii)*. Progress toward this goal can be difficult to ascertain due to existing habitat conditions across the basin, depressed aquatic populations relative to historic conditions, and habitat use at specific locations relative to population dynamics across the basin NFJD and Columbia River basins. In place of a baseline representing historic conditions or the particular state of a depressed population the relative productivity of less disturbed areas can be useful. Significant portions of the NFJD Mid-Columbia Steelhead trout (Carmichael, R.W., 2006), spring Chinook salmon, and Bull trout populations reside in the NFJD Wilderness area and other protected areas that are relatively unaltered or minimally altered; thus, habitat conditions throughout these populations could provide a suitable surrogate for identifying changes in life history strategies in other parts of the basin. Restoring degraded habitats and monitoring subsequent changes in habitat use and species should provide an estimate of our effect upon these species.

Restoration efforts benefiting these species and habitats primarily occur outside undisturbed or minimally disturbed areas, that is, lands managed by private or public entities. As such, cooperative partners are necessary to develop and implement effective restoration efforts within in-stream, riparian, and floodplain habitats. These efforts not only benefit threatened and non-threatened wildlife but protect or restore larger scale natural processes with sufficiently large processes and prioritize efforts according to needs, available funding and technical feasibility. Collaborative efforts reduce the burden upon a single entity and improve restoration efforts by providing additional scrutiny, cost share opportunities, and educational opportunities about the value of singular and cooperative habitat restoration efforts. Deficits in habitat are identified through review of priority area strategies outlined in the Columbia BM RC&DA (2005), Carmichael, R.W., 2006, forest and basin plans, and other documents created to direct program implementation or recovery efforts. From these designations, specific restoration efforts are developed during discussions with landowners.

To date, the Project has constructed approximately 34.7.4 Km of riparian fencing, 29 off-stream water developments, and reactivated two wells; enhanced approximately 20 Km stream, 850 acres of riparian and floodplain habitat, and 850 acres of upland habitat on private and public properties. Appendix I & II show sites where maintenance or restoration efforts have been completed since 2008 or in 2011 on both private and public lands. Private landowners who have entered into a Riparian Conservation Agreements with CTUIR include Mary Lou, William, and Andy Fletcher (Lower Camas Creek), Gene and Julia Engblom (Owens Creek), Richard and Dorothy Allstott (Snipe Creek), Steve Berry (Deer Creek), and Brian Prater (NF John Day), Louis Cannady Hartley, Don Hartley, Stuart Hartley, & LoAnn Morrison (Mud Creek), and Rose Pedracinni (Granite Creek). Cooperative partners with whom CTUIR hasn't entered into a Riparian Conservation Agreement have included the North Fork John Day Watershed Council (NFJDWC), the Umatilla National Forest (UNF), Wallowa Whitman National Forest, Grant Soil and Water Conservation District, National Resource Conservation Service (NRCS), and the Farm Services Agency (FSA) among others. Conversations with these and other groups or agencies are proving useful for identifying additional restoration opportunities and dispersing information regarding

the benefits of cooperative restoration efforts to develop trust with small rural communities within the NFJD Basin. For example, the NFJDWC has proven invaluable for reaching out to the 1200 people residing within the basin that would otherwise be reluctant to cooperate with a tribal or government entity.

Bonneville Power Administration (BPA) initially approved the Project in 2000 with on-the-ground actions following in 2001 to provide partial mitigation for the loss of native salmon and steelhead resulting from the construction of dams on the Columbia River. Additional habitat restoration funds are secured through entities such as the FSA, NRCS, Oregon Watershed Enhancement Board (OWEB), Oregon Department of Fish and Wildlife (ODFW), U.S. Bureau of Reclamation (BOR), the U.S. Army Corps of Engineer (Corps) and other private or public. In an effort to reduce costs associated with overhead the UNF's North Fork John Day Ranger District provides office and storage space while vehicles and equipment are shared with:

(1) BPA Project #198710001 – CTUIR's Umatilla River Basin Anadromous Fish Habitat Enhancement Project
(2) BPA Project #199604601 – CTUIR's Walla Walla Basin Habitat Enhancement Project
(3) BPA Project #199608300 – CTUIR's Grande Ronde Basin Habitat Enhancement Project
(4) BPA Project #200820100 – CTUIR's Protect and Restore the Tucannon Watershed

This annual report covers efforts conducted from 1 February 2012 through 31 January 2014.

SITE DESCRIPTION

The NFJD River (Figure 1.) is the largest tributary to the John Day River flowing westerly for 180 kilometers to join the mainstem John Day River near Kimberly, Oregon. The NFJD River's basin covers 47,885 square kilometers consisting of 37% private, 62% federal, and 1% state lands. The NFJD has been designated as a Wild and Scenic River from Camas Creek upstream to the head waters including one portion classified as "Wild," two as "Scenic," and two as "Recreational." These segments are primarily managed by the UNF and WNF. State Scenic Waterways designated by the State of Oregon, stretch from Monument, OR upstream to the NFJD Wilderness boundary and from the confluence with the North Fork John Day River upstream to the Crawford Creek Bridge on the Middle Fork John Day River. The Middle Fork John Day River (MFJD) (Figure I) flowing into the NFJD is generally considered and primarily managed as a separate system by ODFW, the Confederated Tribes of the Warm Springs Reservation of Oregon, and The Nature Conservancy.

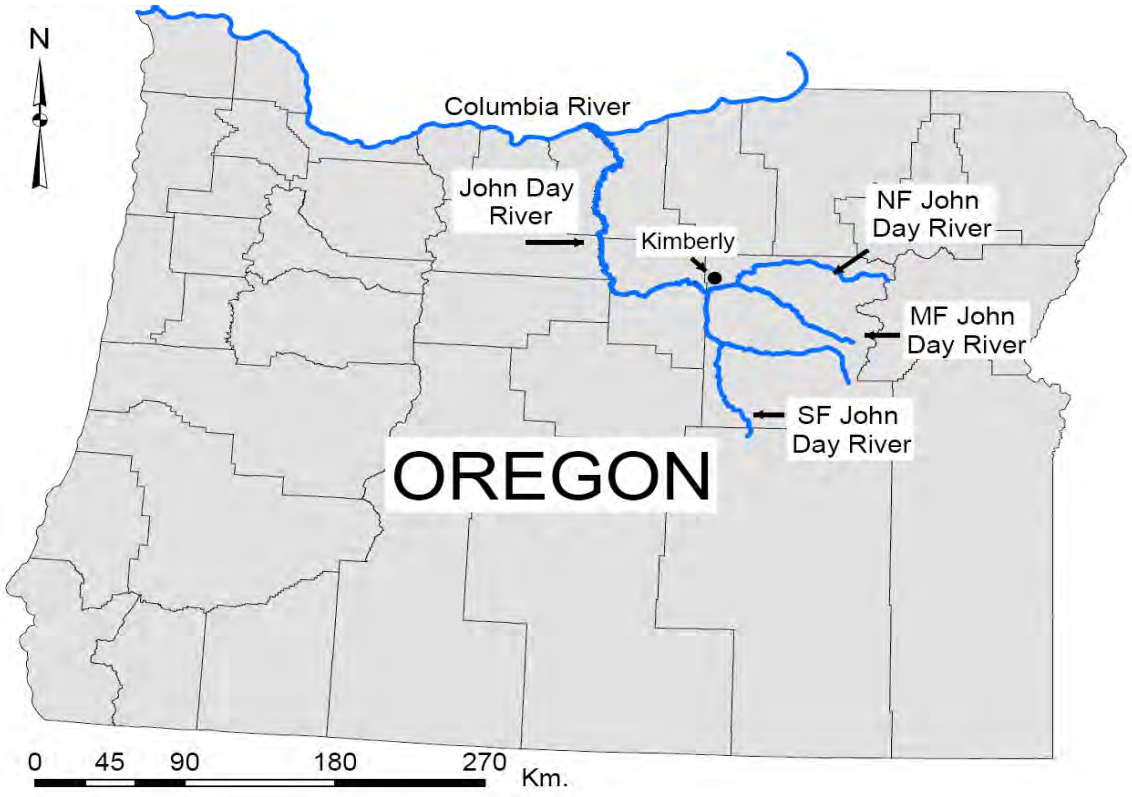


Figure 1. Regional map showing the John Day Basin.

The NFJD contains fifteen 5th Field HUC's (Figure 2) of which four, the Upper and Lower Camas Creek, Desolation Creek, and Granite Creek units are considered 'priority' areas for the purpose of concentrating the Project's restoration efforts. The CTUIR currently maintains eight Riparian Conservation Agreements with landowners on the NFJD, Deer, Camas, Owens, Snipe Creeks, Granite, and Mud Creeks (Figure 3).

Diverse land forms and geology range from 558 meters at the mouth to 2530 meters in elevation in the headwaters and consist of Columbia River Basalts, oceanic crust, volcanic materials, historic river and lake deposits, and recent river and landslide deposits. The North Fork John Day basin has a

continental climate influenced by maritime weather patterns in the higher elevation areas which are characterized by low winter and high summer temperatures, low to moderate average annual precipitation and dry summers. Climate ranges from sub-humid in the upper elevations to semi-arid in the lower elevations with 0.33 to 0.5 meters annually contributing 60% of the flow in the lower John Day River, primarily through November and March. Mean annual temperatures are 3° C in the upper sub-basin and 14° C in the lower sub-basin and range from <-18° C in the winter to over 38° C during the summer. The average frost-free period is 50 days in the upper sub-basin and 200 days in the lower sub-basin. The Blue Mountains in the basin's higher elevations produce a range of microclimates unlike the lower basins typical warmer and more stable patterns.

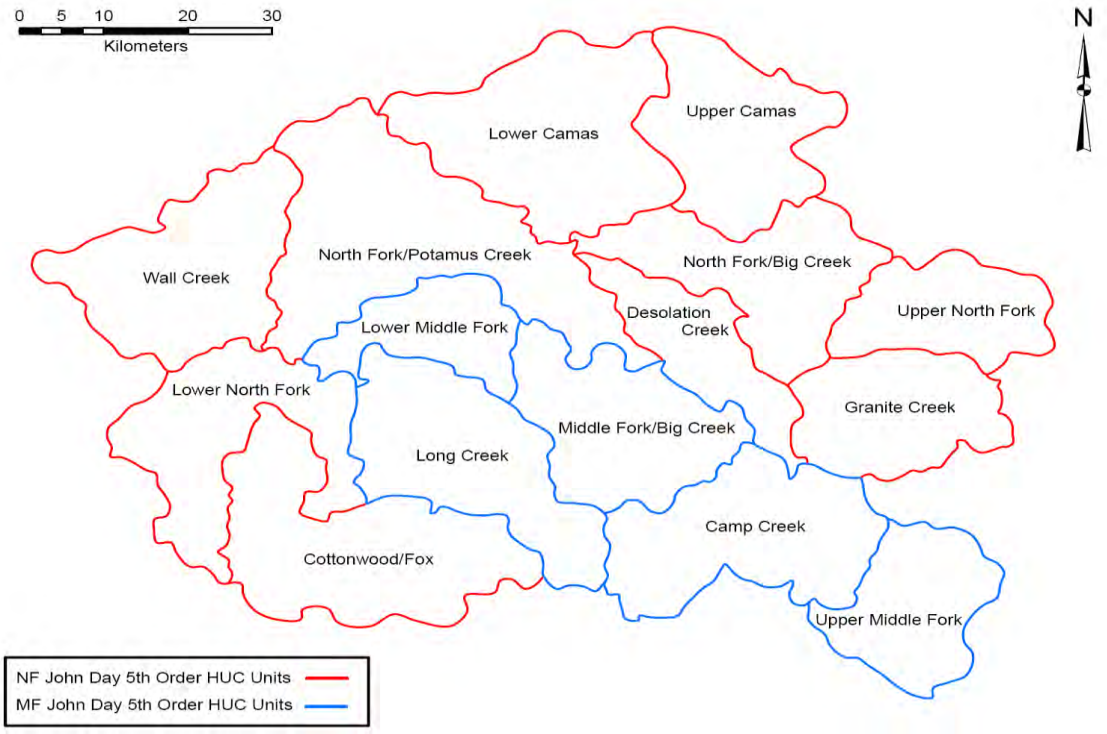


Figure 2. NFJD 5th field HUC's

Historically, the John Day River was one of the most significant anadromous fish producers in the Columbia River Basin (CRITFC 1995) due to its stability, strong summer stream flows, high water quality, and heavy riparian cover. Riparian areas were densely populated with aspen, poplar, willow, and cottonwood and beaver were abundant. Large spring and fall Chinook salmon migrations and numerous beaver sightings indicated the John Day River contained extensive in-stream habitat diversity. Resident trout species including westslope cutthroat (*Oncorhynchus clarki lewisi*), interior redband and bull trout gave way as habitat changed in response to land management objectives. These changes favored introduced species such as brook trout (*Salvelinus fontinalis*), smallmouth bass (*Micropterus dolomieui*), and redside shiner (*Richardsonius balteatus*) in places historically dominated by native resident salmonids. The NFJD currently supports strong native runs of spring Chinook salmon and summer steelhead in the Columbia River Basin with minimal influence from hatchery stocks. Narum et al. 2008 confirmed the John Day River's status as a viable refuge for wild stocks with limited anthropogenic influence.

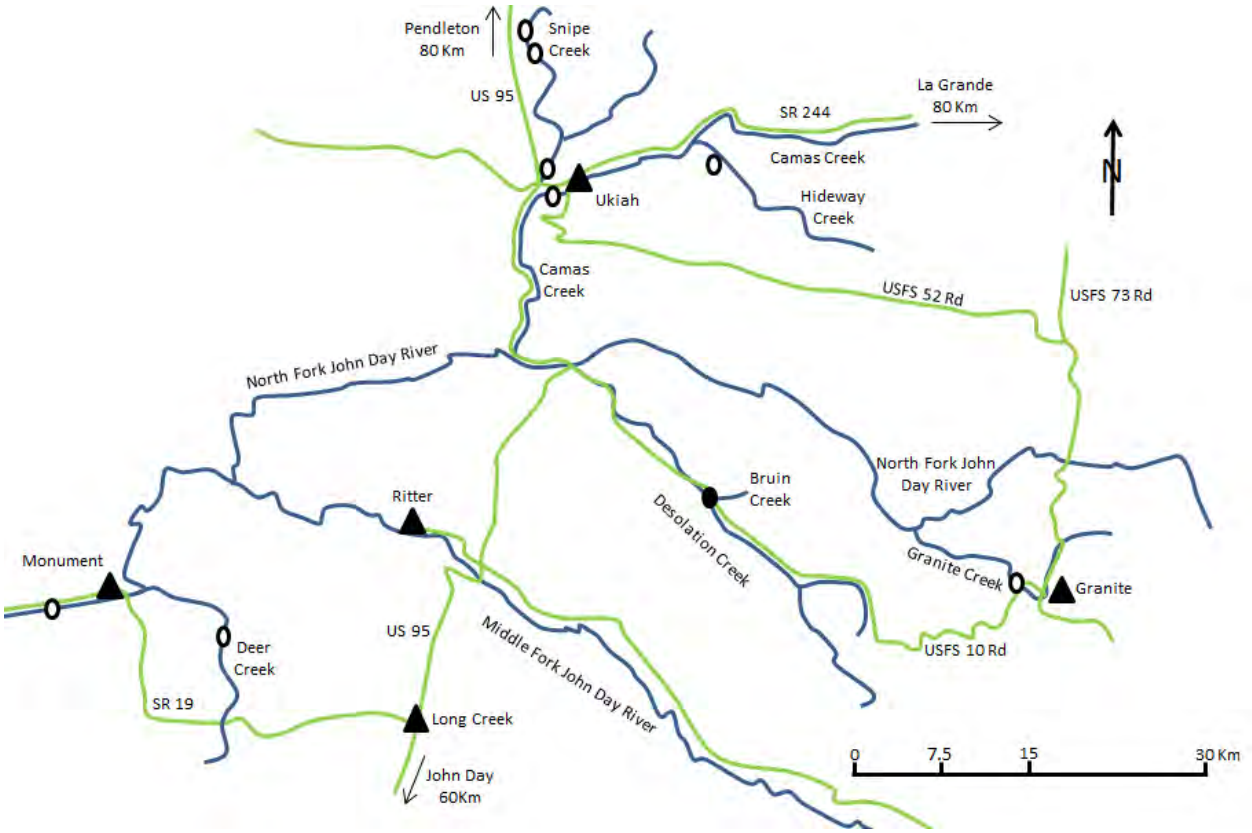


Figure 3. Map showing where conservation agreements (black outlined circles) exist.

The NFJD steelhead population currently occupies ten major spawning areas (including Upper and Lower Camas, Owens, Granite, and Desolation Creek) and five Minor Spawning areas distributed throughout the basin (Carmichael, R.W., 2006). Surveys indicate approximately 1,400 kilometers of the NFJD (StreamNet, 2008) and its tributaries are currently used for spawning and rearing, with index surveys showing consistent use over time. Index area spawning surveys from 1965 to 2005 on NFJD tributaries indicate returning adult steelhead in natural production areas ranged between 369 spawners in 1990 to 10,235 spawners in 1965 (Carmichael, R.W., 2006). While these numbers are somewhat variable over time, current populations appear to be substantially less productive then historic populations (Columbia BM RC&DA 2005) and show a long term decreasing trend. Declines in the basin's summer steelhead population warranted a threatened listing under the ESA in 1999 (The North and Middle Forks John Day River Local Advisory Committee 2002).

Surveys indicate approximately 300 kilometers (approximately 57% of total stream kilometers; (StreamNet, 2008) of the NFJD and its tributaries provide spawning and rearing habitat for Spring Chinook salmon with relatively consistent use over time. However, due to run and spawn timing specific areas may not be used consistently in response to limiting factors. For instance, Granite Creek has shown a long term decline in use for unknown reasons, habitat use in Camas Creek is opportunistic and responds to available flows and water temperatures, and returning adults of the MFJD population died prematurely during 2007; likely due to elevated water temperatures (Unterwagner 2007).

Limiting habitat factors identified in the NFJD basin (Table 1) and designated in Carmichael (2006), Columbia BM RC&DA (2005), and various management plans include water quality (temperature, modified flows, nutrient input), in-stream habitat (structure, cover, sediment loading, channel

morphology and processes,), and riparian health. Most streams in the NFJD basin are considered to be in relatively good condition, with the exception of elevated late summer water temperatures that exceed Oregon Department of Environmental Quality standards. In general, most indicators of channel condition within the NFJD suggest the basin is “functioning at risk”.

Historic and current land use practices or threats (Table I) within the have reduced river stability, decreased high quality summer stream flows and water quality, reduced heavy riparian and floodplain cover, and compromised physical and biological processes related to these associations and structures. The loss of abundant riparian and flood plain vegetation, once robust beaver populations, and large spring and fall Chinook salmon migrations suggest the NFJD has lost a significant amount of in-stream habitat diversity and may now have an altered hydrologic cycle. Changes in the hydrologic cycle attributed to altered riparian and floodplain areas and stream morphology and processes can be indicated by increased runoff, altered peak flow regimes, reduced ground water recharge and soil moisture storage, and low late-season flow and elevated water temperatures. Historic and current land management strategies, in combination with possible changes in the hydrologic cycle, have contributed to stream channel instability (i.e., channel widening and incision) in some portions of the NFJD. Additionally, wildlife habitat has become increasingly fragmented, simplified in structure, and infringed upon or dominated by non-native plants (ICBEMP 2000).

Major Limiting Factors	**Threats**
Floodplain & Channel Structure In-Stream Habitat Sediment Routing Water quality	Riparian Disturbance Stream Channelization & Relocation Grazing Forest practices Roads Irrigation Withdrawals Mining & Dredging

Table 1. Limiting factors and threats within the North Fork John Day Basin.

Changes in habitat have also resulted from a century of fire suppression activities and fire exclusion from the forest ecosystem resulting in greater forest stand densities than historic natural conditions. Dense stands are more susceptible to insect infestation, disease, and catastrophic stand replacement fires. Juniper encroachment into native grasslands resulting from altered an altered fire regime have served to increases evapotranspiration and reduce stream flows. Roads created to facilitate logging operations and fire suppression have increased in-stream sedimentation from road erosion and disturbed areas during logging operations. Culverts and other structures associated with road construction have fragmented existing in-stream and riparian, floodplain, and wetland habitats.

Altered native habitat conditions also facilitate the spread of non-native and highly adaptable species. Nonetheless, habitat conditions on public lands and some private lands are generally considered to be improving through cooperative efforts between public and private landowners, tribal programs, federal, and state agencies, and groups such as Soil and Water Conservation Districts and Watershed Councils.

2012 WORK ELEMENT DETAILS

A: 165. Produce Environmental Compliance Documentation

Title: Produce Weed Control Compliance Documentation

Description: Complete and submit BPA CALENDAR YEAR 2012 ACTUAL HERBICIDE APPLICATIONS form to document 2012 weed treatments and BPA CALENDAR YEAR 2013 PROPOSED HERBICIDE APPLICATIONS form for proposed 2013 treatments to BPA. Noxious weeds will continue to be treated with herbicides within existing habitat project areas, including Snipe Creek, Owens Creek, Upper and Lower Camas Creek, Deer Creek, and the Lower North Fork John Day River.

Deliverable Specification: Clearances from BPA's Environmental Planning and Analysis Section for FY 2012 noxious weed treatments and all other NEPA and ESA requirements: Clearances will be secured based upon when CTUIR clearance requests (BPA Watershed NEPA Checklist and BPA Herbicide Applications forms) are submitted to BPA and approvals are granted by BPA. This WE is closely tied to WE H. Maintain Vegetation Within Existing Project Areas.

Planned Metrics: * Are herbicides used as part of work performed under this contract?: Yes * Will water craft, heavy equipment, waders, boots, or other equipment be used from outside the local watershed as part of work performed under this contract?: No

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Assist BPA's Environmental Compliance Lead to meet necessary environmental compliance requirements	2/1/2012	5/1/2012	Completed	Work with EC lead to identify all NEPA, ESA, and Cultural Resource issues that need to be addressed before on the ground work can begin.
B. Provide BPA EC Lead with calendar year 2013 proposed herbicide use	10/01/2012	1/31/2013	Completed	Contractor submits any proposed herbicide use on an approved form to the BPA Environmental Compliance Lead
C. Provide BPA EC Lead with calendar year 2012 actual herbicide use	10/01/2012	1/31/2013	Completed	Contractor submits any actual herbicide use on an approved form to the BPA Environmental Compliance Lead
D. Work with EC Compliance Lead to ensure permitting requirements have been completed	10/01/2012	1/31/2013	Completed	Work with EC Compliance Lead to ensure permitting requirements have been completed.
Deliverable: E. Produce Weed Control Compliance Documentation		1/31/2013	Completed	See the Deliverable Specification above

Weed compliance documentation was submitted for actual 2012 actual treatments and 2013 treatments. The spray contractor initially under contract was released from that contract and replaced by another qualified individual. As a result, the 2012 spring treatments were not completed and fall treatments were more intensive. The proposed treatments for 2013 did not differ significantly from the 2012 actual treatments.

B: 114. Identify and Select Projects

Title: Identify, Prioritize and Select Habitat Project Areas

Description: Coordinating with landowners, agencies, and the North Fork John Day Watershed Council (NFJDWC) allows us to identify and select passive habitat restoration (riparian fencing, native revegetation and off-stream water improvements), active habitat restoration (in-stream complexity

improvements), passage, and restoration efforts related to past resource extraction efforts within the Lower Camas, Upper Camas, Desolation and Granite Creeks Geographic Areas (GA's) in FY 2012 and beyond. Projects are identified and ranked throughout the year in an effort to take advantage of available opportunities, cooperators, and funding. During the third quarter of the contract year, opportunities not conducted during the current contract year are prioritized according to restoration effectiveness and feasibility, financial constraints, and cooperation with individuals, groups, and agencies for implementation during consecutive performance periods. Restoration projects are identified by meeting with individuals, public meetings, interagency coordination efforts and communication, watershed council and conservation district meetings and communications, and opportunistic cost-share opportunities. These efforts require constant review of sub-basin and recovery plans, watershed analyses, management plans (grazing, EIS, others), county records, and funding resources. Project personnel also direct landowners to potential cooperative partners such as the U.S. Department of Agriculture (USDA), NF John Day Watershed Council, and soil and water conservation districts. CTUIR works to secure Riparian Conservation Agreements within the Lower Camas, Upper Camas and Desolation Creek Geographic Areas for a minimum term of 15 years and a maximum term of perpetuity. Landowners accept BPA-funded habitat improvements and CTUIR's maintenance of these improvements in lieu of direct funding which allows for cooperative restoration efforts whereby riparian corridor widths, fence specifications, water development locations and numbers are identified for the life of the easement. These negotiations can consume a considerable amount of time. Often requiring constant attention and the willingness to act as opportunities present themselves.

Deliverable Specification: Prepare and secure Riparian Conservation Agreements where feasible by working with individuals, groups, and agencies to develop priority areas to enhance riparian, in-stream, and other resource enhancements. Select priority habitat restoration and protection projects within the Lower Camas, Upper Camas, Desolation and/or Granite Creeks GA's in FY 2012 and beyond. A list of priority 2013 habitat enhancement projects shall be developed by October 31, 2012.

Primary Focal Species: Chinook - Mid-Columbia River Spring ESU | Steelhead - Middle Columbia River DPS | Trout, Bull | Trout, Rainbow | Trout, Interior Redband

Milestone Title	Start Date	End Date	Status	Milestone Description
Deliverable: A. Identify, Prioritize and Select Habitat Project Areas	2/1/2012	11/5/2012	Completed	See the Deliverable Specification above

Efforts in support of the CTUIR First Foods Policy implemented through the Umatilla River Vision continued in the three focal basins Camas, Desolation, and Granite Creeks and around Monument, Oregon. Collaboration with the Umatilla National Forest, Wallowa-Whitman National Forest, and NFJDWC continued through monthly or periodic meetings to identify cooperative efforts for 2013 and beyond. Communication and collaboration with other public and private entities included completing and distributing the Camas Creek Brief addressing sediment deposition within Camas Creek that will eventually create issues with flooding. The brief was delivered to residents of the Ukiah Valley and subsequent presentations at the City of Ukiah council meeting and conversations with individual landowners. Coordination with ODFW resulted in two conservation agreements and implementation efforts planned for 2013 in the Camas Creek and Granite Creek basins. Both sites will receive treatments in step wise process over multiple years. Conversations with another large landowner in the Camas Creek were initiated in December of 2012 and did not produce an agreement before the end of the performance period.

C: 99. Outreach and Education

Title: Provide Outreach and Education

Description: The project shall conduct outreach efforts (public meetings, tours, and presentations) to obtain input, identify landowner and resource agency concerns, provide educational opportunities, and promote stream habitat restoration and protection; provide coordination between the project and participating cooperators involved in project work. Outreach efforts will be directed towards, both FY 2012 and 2013 activities.

Deliverable Specification: Conduct public outreach and educational opportunities for landowners and agencies to develop public awareness of habitat conservation and project effectiveness through tours and in cooperation with the NF John Day Watershed Council (outreach fairs, conversations with the public) to reach landowners. Attend 8-12 NFJDWC meetings and actively participate as a member of the council. Due to the timing and nature of implemented efforts, outreach with students shall occur as opportunities are identified.

Planned Metrics: # of general public reached: 15

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Provide tours and presentations to the general public, interest groups, school groups, etc.	2/1/2012	1/31/2013	Completed	Provide educational or outreach efforts to show and explain the projects efforts, goals, and objectives. This milestone is closely related to WE 114 in that tours and presentations may also be used to inform cooperative partners of potential projects and efforts conducted through the NF John Day Watershed Councils outreach and educational efforts.
B. Attend 8-12 NFJDWC meetings	2/1/2012	1/31/2013	Completed	Attend NFJDWC meetings in an effort to educate the public and others about CTUIR's efforts and opportunities in the basin. This milestone is closely related to WE 114.
Deliverable: C. Provide Local Community-Based Outreach and Education		1/31/2013	Completed	See the Deliverable Specification above

Community outreach for 2012 largely consisted of attending and participating in monthly NFJDWC meetings, and working to develop a coordinated effort to addressing sediment issues in Camas Creek. The Project did speak with one large landowner on Camas Creek who declined to participate in cooperative efforts and two other landowners which resulted in the Mud Creek Fencing Effort and Granite Creek In-stream Implementation efforts for 2013.

D: 186. Operate and Maintain Habitat/Passage/Structure

Title: Maintain Water Developments

Description: Prevent in-stream stock watering opportunities to better distribute livestock in upland areas improving grazing management, stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat and increase thermal cover, pool habitat, channel shading, and native plant recovery and succession for terrestrial and aquatic wildlife with an emphasis on those species that fall within CTUIR's First Foods Policy and/or are listed species. This WE includes maintenance of troughs, associated plumbing, and pumps.

Deliverable Specification: Five wells, 17 water developments, and four ponds within existing project areas shall be inspected weekly by project personnel to insure that they are functioning properly and continue prevention of livestock watering from streams, as necessary. Projects sites include Upper and

Lower Camas Creek, Snipe Creek, Owens Creek, Deer Creek, and the Lower North Fork John Day River. Maintenance needs are dependent upon the presence of cattle and will be assessed throughout the project year.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 9.80 * # of acres protected by fence maintenance: 748.10

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	5/1/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Project personnel shall repair water developments as needed during the first quarter	2/1/2012	4/30/2012	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's first quarter.
C. Project personnel shall repair water developments as needed during the second quarter	5/1/2012	7/31/2012	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's second quarter.
D. Project personnel shall repair water developments as needed during the third quarter	8/1/2012	10/31/2012	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's third quarter.
E. Project personnel shall repair water developments as needed during the fourth quarter	11/1/2012	1/31/2013	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's fourth quarter.
Deliverable: F. Maintain Water Developments		1/31/2013	Completed	See the Deliverable Specification above

Maintenance of water structures occurred between April and October of 2012. Maintenance did not identify or require excessive efforts or a change in policy or practice as a result of these efforts. Water gaps required the most maintenance due to woody debris and the like deposited during high flows after gaps were removed in the fall and replaced in the spring. The Upper Camas Creek site efforts to address issues with pump house flooding continued. Although water delivery to stock was not interrupted concerns regarding pump suitability and longevity were a source of concern. Service by technicians could not identify any issues.

E: 26. Investigate Trespass

Title: Investigate for Livestock Trespass

Description: Removing livestock will improve stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat and increase thermal cover, pool habitat, channel shading, and native plant recovery and succession for mammals and adult and juvenile Threatened Mid-Columbia summer steelhead trout and non-listed spring Chinook salmon.

Deliverable Specification: Identify livestock trespass into restricted access areas such as riparian enclosures along approximately 12 miles of stream: Inspect project areas on a weekly basis for trespass and address maintenance issues which allowed the trespass.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Inspect project areas for trespass livestock on at least a weekly basis	2/1/2012	4/2/2012	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's first quarter.
B. Inspect project areas for trespass livestock on at least a weekly basis	5/1/2012	7/31/2012	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's second quarter.
C. Inspect project areas for trespass livestock on at least a weekly basis	8/1/2012	10/31/2012	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's third quarter.
D. Inspect project areas for trespass livestock on at least a weekly basis	11/1/2012	1/31/2013	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's fourth quarter.
Deliverable: E. Investigate for Livestock Trespass		1/31/2013	Completed	See the Deliverable Specification above

Investigations of livestock trespass occurring between May and October did not identify significant issues with fence suitability or maintenance. Although trespass did occur in several instances repairs to fencelines and gates corrected the issue. In one instance the adjacent landowner was notified to correct a maintenance issue on their property.

F: 186. Operate and Maintain Habitat/Passage/Structure

Title: Maintain Fences

Description: As necessary, existing riparian enclosure fences shall be maintained and repaired by project personnel to exclude livestock from restricted access areas. This shall insure continued improvement of stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat, and increased thermal cover, pool habitat, channel shading, and native plant recovery and succession for mammals and adult summer steelhead and juvenile spring Chinook salmon and summer steelhead. Sites shall include Upper and Lower Camas Creek, Snipe Creek, Owens Creek, Deer Creek, and the Lower North Fork John Day River. Statement of Work Report - 3.19.7.0 Printed: Tuesday, March 25, 2014 2:13 PM Page 7 of 27

Deliverable Specification: Conduct weekly inspections on approximately 23 miles of riparian and floodplain protection fencing to continue exclusion of livestock from existing project riparian corridors and floodplain areas: Inspections will not cover the entire fence every week; only a portion of the fence equal to 1/4 of the fence unless trespass or damage is noted while completing WE 26 and 186. These fences enclose approximately 11 stream miles and include maintenance of 19 water gaps. Maintenance needs are dependent upon the presence of cattle and will be assessed throughout the project year.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 20.00, * # of acres protected by fence maintenance: 748.10

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	5/1/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff

				(completion can be based on pre-existing environmental documentation from BPA).
B. Project personnel shall repair fences as needed during the first quarter	2/1/2012	4/30/2012	Completed	During weekly inspections, fence repair shall occur by project staff during the project's first quarter.
C. Project personnel shall repair fences as needed during the second quarter	5/1/2012	7/31/2012	Completed	During weekly inspections, fence repair shall occur by project staff during the project's second quarter.
D. Project personnel shall repair fences as needed during the third quarter	8/1/2012	10/31/2012	Completed	During weekly inspections, fence repair shall occur by project staff during the project's third quarter.
E. Project personnel shall repair fences as needed during the fourth quarter	11/1/2012	1/31/2013	Completed	During weekly inspections, fence repair shall occur by project staff during the project's fourth quarter.
Deliverable: F. Maintain Fences		1/31/2013	Completed	See the Deliverable Specification above

Fencelines were maintained between April and October and did not identify significant issues with suitability or maintenance beyond trees falling over the winter and where trespass occurred.

G: 197. Maintain/Remove Vegetation

Title: Maintain Vegetation

Description: Noxious weeds often out compete native vegetation and reduce the value/productivity of a given parcel of land. As such The State of Oregon has developed a 'A' noxious weed list which guides control efforts by CTUIR and others. This list may include additional species as the need arises. Additionally, historic land management practices have often reduced the conditions necessary for the vigorous and healthy growth of native species. Restoration efforts must therefore include a component addressing the presence and health of native vegetation to provide long term shade, structure, and stability to restoration sites.

Deliverable Specification: Treat noxious weeds where CTUIR holds Riparian Conservation Agreements and as opportunities arise with cooperators within the NFJD basin. Treatments shall occur two to three times per growing season using spot treatments by hand wand. Expected chemicals include Clopyralid, Metsulfuron methyl, and 2,4-D. Spot treatments significantly reduce inadvertent exposure by sensitive habitats and species while reducing expenses associated with larger more general treatments. An estimate of the acres treated is therefore misleading. Clearances from BPA's Environmental Planning and Analysis Section for FY 2011 noxious weed treatments and all other NEPA and ESA requirements: Clearances will be secured based upon when CTUIR clearance requests (BPA Watershed NEPA Checklist and BPA Herbicide Applications forms) are submitted to BPA for approval. Statement of Work Report - 3.19.7.0 Printed: Tuesday, March 25, 2014 2:13 PM Page 8 of 27

Planned Metrics: * # of riparian miles treated: 6.40 * # of acres of upland non-wetland habitat treated: 200.00 * # of acres of upland wetland habitat treated: 0.00 * # of acres of riparian non-wetland habitat treated: 370.00 * # of acres of riparian wetland habitat treated: 0.00 * # of acres of freshwater non-wetland habitat treated: 0.00 * # of acres of freshwater wetland habitat treated: 0.00 * # of acres of estuarine wetland habitat treated: 0.00 * # of acres of estuarine non-wetland habitat treated: 0.00 * # of estuarine miles treated: 0.00 * # of freshwater miles treated: 0.00 * # of years treated: 10 * # of acres maintained: 570.00 * Biological plant removal: No * Herbicide plant removal: Yes * Mechanical plant removal: Yes * Conduct controlled burn: No

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	3/30/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Initiate subcontract bid process and award subcontract	2/1/2012	4/6/2012	Completed	Initiate invitation for noxious weed control bids, provide tour of proposed treatment sites to interested contractors, award subcontract to low-bid contractor, and develop subcontract (specifications will be determined based upon treatment methods and allowable chemicals stipulated within NOAA Fisheries' 2008 Biological Opinion).
C. Assess the condition of vegetation, weeds in project areas, and the contractor's performance.	4/2/2012	11/1/2012	Completed	Determine if conditions have remained consistent (number of acres requiring treatment, etc.) with the previously submitted BPA CALENDAR YEAR 2012 PROPOSED HERBICIDE APPLICATION form. Noxious weed mortality will be verified via inspections two to three weeks after each herbicide application.
D. Eradicate noxious weeds with herbicides	4/9/2012	11/19/2012	Completed	Apply herbicides and biological controls where appropriate to weeds listed on Umatilla and Grant County's' Noxious A Weed lists, within existing project areas. This shall occur two to three times per growing season to be effective in eradicating various weed species (different growth cycles) and reducing seed drop.
E. Subcontractor shall submit 2011 weed treatment log	10/1/2012	1/31/2013	Completed	The subcontractor shall complete and submit a weed log (form shall be provided in CTUIR's subcontract) indicating herbicides and adjuvant utilized, number of upland and riparian acres treated, total volume of herbicide utilized, treatment method, etc. for each individual project area treated during the 2010 project period. Project personnel shall incorporate this information into BPA's CALENDAR YEAR 2011 ACTUAL HERBICIDE APPLICATIONS form to document 2011 weed treatments.
Deliverable: F. Maintain Vegetation		1/31/2013	Completed	See the Deliverable Specification above

As previously noted the contracted weed sprayer for all properties where conservation agreements exist was released from their contract in early 2012. Unfortunately, by the time another contractor was located and placed under contract potential spring treatments were no longer possible and more extensive treatments occurred in an effort to reduce treatments the following spring. Treatments by the new contractor differed from those of their predecessor although the overall result was similar. A cooperative effort with the City of Ukiah continues to treat weeds in and around Ukiah including an adjoining property where a conservation agreement is in place.

H: 157. Collect/Generate/Validate Field and Lab Data
Title: Collect Monitoring Data

Description: Collect pre and post-project monitoring data on the all properties CTUIR maintains a Riparian Conservation Agreement or where cooperative projects require monitoring by CTUIR within the North Fork John Day River basin. Monitoring efforts will track and identify short and long-term effects and the success of habitat enhancements. Data will be summarized and included in the project's 2012 Annual Report. Statement of Work Report - 3.19.7.0 Printed: Tuesday, March 25, 2014 2:13 PM Page 9 of 27

Deliverable Specification: Document changes resulting from restoration activities. Channel morphology and processes, native plant communities, floodplain function and temperatures will be examined by tracking changes over time. Sites established during and prior to 2008 will be used for annual surveys conducted in June/July. Longitudinal and transverse transects, scour chains, and bank pins quantitatively

track changes in channel morphology and processes with the added benefit of identifying habitat and changing in-stream habitat diversity. Cross sectional surveys, photopoints and densiometers will quantitatively and qualitatively track changing streamside and riparian vegetation communities while providing an estimate of its shading ability upon the stream. Cross-sectional surveys and circle plots qualitatively assess the floodplains vegetative diversity. Topographic surveys conducted every 3 to 5 years will track changes in channel and floodplain topography and establish the stable state of habitat improvements. Efforts to refine methodologies will continue. Pre-project data will be collected to establish a baseline may include topographic channel and riparian surveys, longitudinal and cross sectional surveys, scour chains, photopoints, and other potential methods mentioned above. Monitoring Plan - Assuming BPA has an interest in tracking or identifying trends related to habitat restoration efforts we expect to follow several protocols. Pre-project data, as mentioned above, will be used as a baseline to gauge project effectiveness. Post-project data will be collected yearly in an effort to build a data base from which to provide statistical analysis. After an adequate amount of data has been collected (period dependent upon analysis, (~ 5 years) monitoring frequency may be modified to reduce project costs and reflect the growth or natural changes of an established project site. Where projects involve steam channels or significant ground disturbances, topographic maps created every three years (frequency will remain constant) will track gross changes in channel and floodplain topography. This information will be included within the 2012 Annual Project Report.

Planned Metrics: * Primary R, M, and E Focal Strategy: Tributary Habitat * Primary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Focal Strategy : Tributary Habitat

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	2/29/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Review, revise, and Publish protocol, study design, and methods in monitoringmethods.org	2/1/2012	4/30/2012	Completed	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., Published through monitoringmethods.org), preferably prior to data collection Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.
C. Collect pre and post project data	2/1/2012	1/31/2013	Completed	Collect monitoring data using longitudinal and transverse surveys, scour chains, circle plots, photopoints, densitometers, topographical surveys, and stream temperatures. Survey sites established during and prior to 2008 and surveys conducted during June/July will standardize our efforts and provide quantitative and qualitative measures of project effectiveness. Efforts prior to project implementation will include the a portion or all of the afore mentioned surveys to establish a base line from which to base restoration efforts.
D. Conduct literature searches to obtain biological data	2/1/2012	1/31/2013	Completed	Review available literature to refine methods for collecting physical and biological inventories. If funds and staff are unavailable to conduct biological inventories the project shall continue to obtain relevant information from ODFW or others.
E. Data proofing and entry	11/1/2012	1/31/2013	Completed	Data collected will be entered and proofed during November - January. Analysis will identify relevant issues to be covered in the annual report.
Deliverable: F. Collect Data to Monitor Project Effectiveness		1/31/2013	Completed	See the Deliverable Specification above

The Project has adopted an approach to monitoring whereby physical habitat data is collected for five years following implementation and after that every three years or as needed. Photopoints are collected

annually as are water temperatures where The Project maintains a conservation agreement. Other actions rely on cooperators collecting monitoring typically as funding allows.

Physical Monitoring Data

For 2012 only one site where a conservation agreement was monitored, that being, Lower Camas Creek site (Figure 4). Cross-sectional (Figure 5) profiles do not suggest there have been significant changes in channel width and depth since 2008 although there may have been some high flow sediment deposition along the edge of both cross-sections and there is a 14 cm decrease in channel depth at cross-section 150. Well-developed gravel bars still exist at the cross-sections and J-hooks placed to create and maintain scour are actively contributing to habitat complexity. Below these cross-sections however, Camas Creek has been cutting into the bank depositing sediments on a gravel bar left in place within the old levees which were removed as part of the in-stream implementation effort. Both the bank cutting and sediment deposition are natural processes as indicated by the channel above and below the monitored site which shifts annually. An unquantified and qualified amount and type of sediments have been influencing Camas Creek both above and below the monitored site; however, pebble counts and the previously noted cross-sections do not suggest this is occurring within the monitored reach to a significant degree (Figure 6). Pebble counts at cross-section 39.5 do show that courser sediments are present in 2012 although distributions are similar within the range of each sample. Cross-section 150 suggests the presence of smaller sediments have decreased and larger sediments have increased. This may be partially due to inadvertent sampling error. However, given the aggradation from Ukiah downstream through the property this is not unexpected.

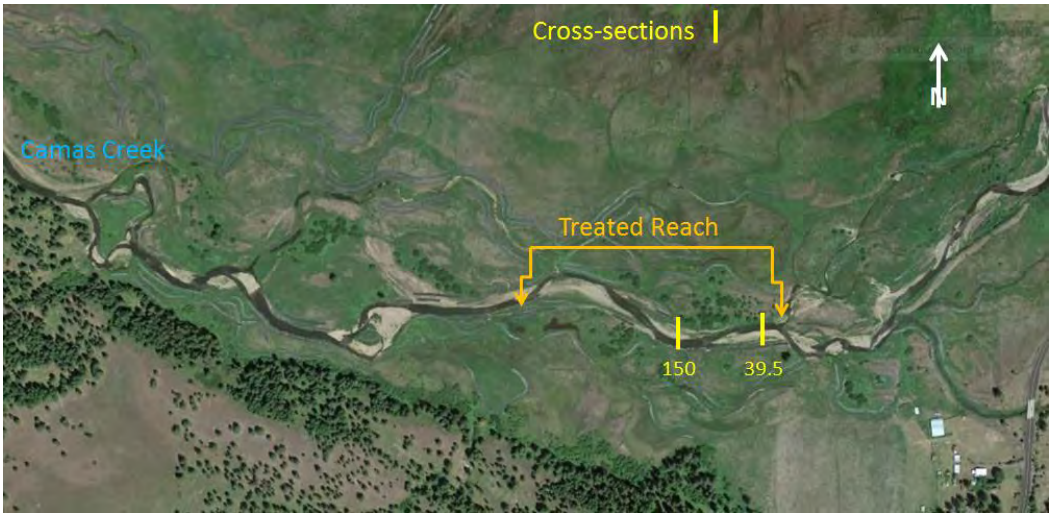


Figure 4. Aerial phtotgraph showing the location of the treated reach and the cross-sections for which data has been included in this report.

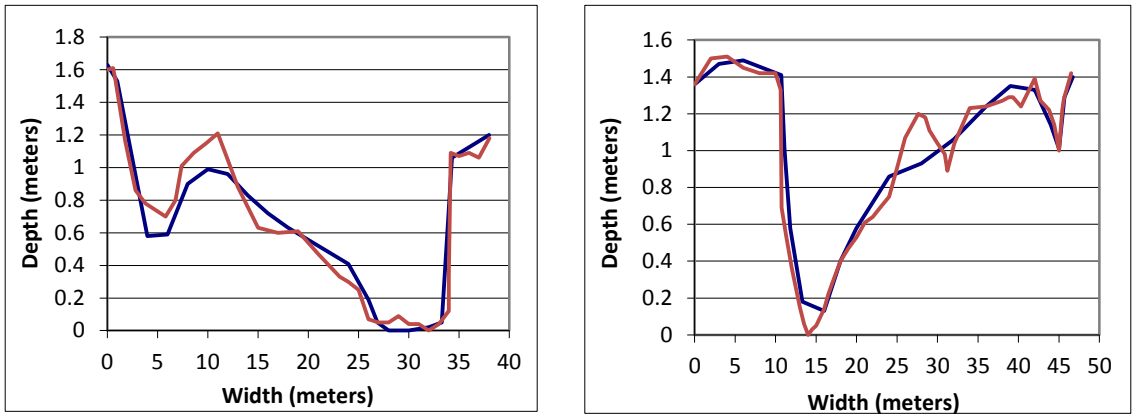


Figure 5. Data for cross-sections 39.5 (left) and 150 (right) for the Lower Camas Creek site during 2008 (blue) and 2013 (red).

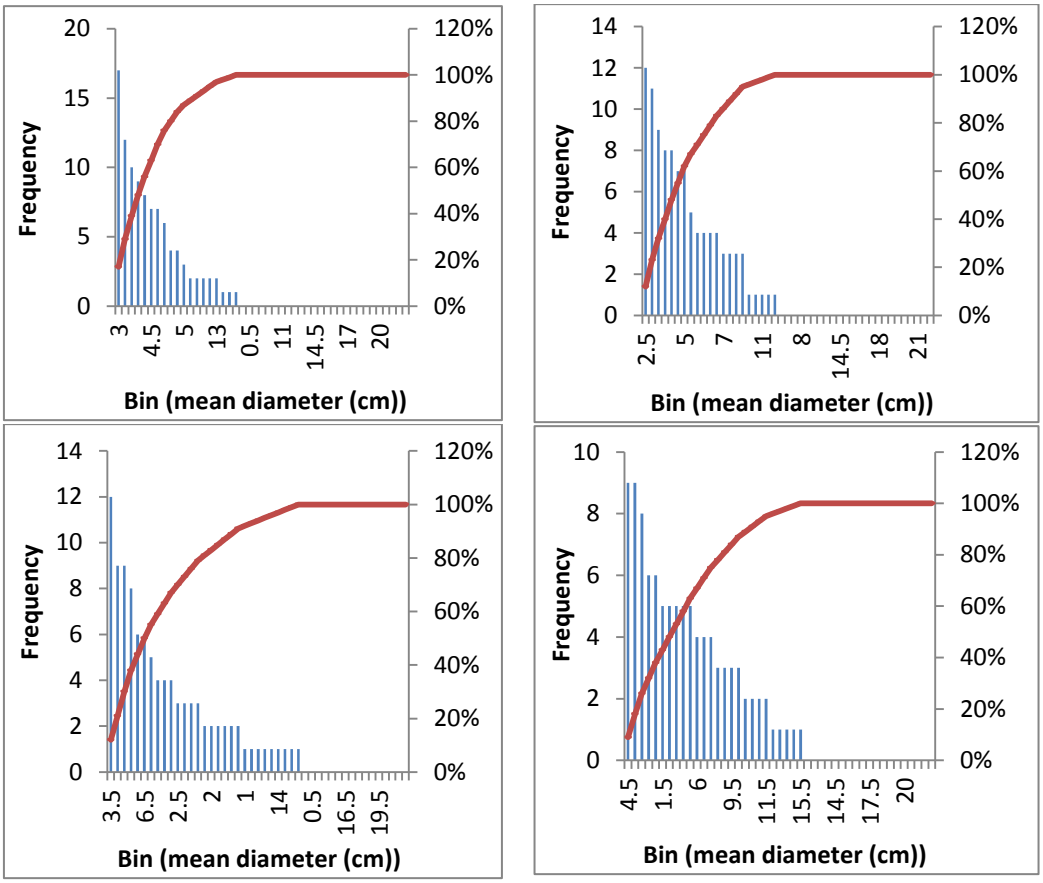


Figure 6. Pebble Counts collected in 2007 (top) and 2012 (bottom) at cross-sections 39.5 (left) and 150 (right) frequency (blue) cumulative % (red).

Vegetative cover (Table 2 & Figure 7) has remained consistent to the extent possible given stream mobility and subsequent bank erosion although native plantings from 2007 and 2998 and not proven successful overall. In locations where adequate water exists and predation by elk, deer, and beaver are low plantings have flourished. However, through much of the site plantings were not adequately protected by 0.5 meter plastic tree protectors placed during planting or against excessively wet

conditions during the winter and into early summer, streambank erosion removing weed mats, and predation by wildlife. The Project will be working with the landowner and NRCS in 2015 to revisit plantings and implement more successful protection measures. Many of the successful trees were protected by two meter high horse fence wire cages placed about individual trees. The 2015 efforts will use larger plant stock and a greater amount of the fence enclosures to improve survival.

Transect # and Bank	%	Cover Type
39.6 Right	78	Grass
39.6 Right	18%	Water
39.6 Right	4	Hawthorn
39.6 Left	57	Rock
39.6 Left	22	Grass
39.6 Left	18	Water
39.6 Left	3	Tree Mat
150 Right	41	Rock
150 Right	39	Grass
150 Right	2	Water
150 Left	66	Grass
150 Left	20	Water
150 Left	14	Tree Mat

Table 2. Pebble counts for cross-sections 39.5 and 150 collected during 2012 at the Lower Camas Creek site.

Figure 7. Photopoints collected during 2007 (left) and 2012 (right) at the Lower Camas Creek site.

Photopoints were collected at all sites where a conservation agreement exists. These photos are displayed in Figure 8 showing both an earlier photo and those collected during 2012. Although not overly robust the photographs show all sites are stable.


Photopoints for the Upper Snipe Creek site collected in 2004 (left) and 2012 (right).


Photopoints collected during 2005 (left) and 2012 (right) at the Lower Snipe Creek site.


Photopoints collected from the Owens Creek site during 2004 (left) and 2012 (right).


Photopoints collected at the Deer Creek site during 2010 (left) and 2012 (right).

Figure 8. Phototpoints collected to track qualitative progress toward meeting objectives.

I: 157. Collect/Generate/Validate Field and Lab Data

Title: Acquire Stream Temperature Data

Description: Due to the numerous land management and restoration partners throughout the North Fork John Day Basin multiple entities collect stream temperature data for upload into NOAA's central Database. This information is available to anyone interested and helps provide baseline and trend monitoring data.

Deliverable Specification: Project staff will supply stream temperature data to the Monument SWCD for uploading to NOAA's Access database. This data will be summarized and included in the project's 2011 - 2012 Annual Report.

Planned Metrics: * Primary R, M, and E Focal Strategy: Tributary Habitat * Primary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Focal Strategy : Tributary Habitat

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	3/1/2012	3/30/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Review, revise, and Publish protocol, study design, and methods in monitoringmethods. org	2/1/2012	11/1/2012	Completed	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., "Published" through monitoringmethods.org), preferably prior to data collection. Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.
C. Deploy data loggers	5/1/2012	5/31/2012	Completed	Deploy data loggers.
D. Recover data loggers	10/1/2012	10/31/2012	Completed	Recover data loggers.
E. Submit data to NOAA	11/1/2012	1/31/2013	Completed	Submit data to NOAA.
Deliverable: F. Acquire and Submit Stream Temp Data to NOAA		1/31/2013	Completed	See the Deliverable Specification above

Water temperatures were recorded at dedicated locations at one hour intervals beginning at 0000 hours from 1 June through 27 September. Data loggers were placed at each sites upper and lower extent. Unfortunately, an issue with the data loggers likely due to operator error reduced the number of available data to the three files shown in Table 3 below. Both Upper Deer and Camas Creek contained a number of temperature reading over 20^{o} Celsius which has been identified as the point where growth stops. The data did not reveal any temperatures over 25^{o} Celsius or the point at which temperatures become lethal for salmonids. Temperatures within the 10^{o} – 15^{o} Celsius range which is optimal for salmonid growth were present in 58%, 48%, and 43% of the samples for Upper Snipe, Upper Camas, and Upper Deer Creeks respectively. Many of the other temperatures were less than 10^{o} Celsius throughout the sampling period although most occurred in June and September especially in early June and late September. Deer Creek displayed the greatest number of elevated temperatures as one may expect due to its lower elevation and consistently drier climate. The numbers for Upper Deer Creek are better than those collected in 2007 although data collected since 2007 will need to be analyzed at all sites to determine if treatments have been effective given variability in the data across years.

Site	Data Points > 20°C	Data Points > 25°C	% Mean Daily Temp >=17.8°C	10°C - 15.6°C	Total Data Points
U Snipe	0	0	0.0	1658	2832
U Camas	150	0	4.3	1333	2760
U Deer	306	0	18.5	1246	2856
Table 3. The results from water temperature data from 2012.					

J: 184. Install Fish Passage Structure

Title: Lower Ten Cent Creek Culvert Replacement

Description: During 2009/10/11 the UNF, NFJDWC, CTUIR cooperated to complete NEPA documentation, culvert surveys for design, and a design and secure additional funding for this effort. Culvert designs shall be completed by the UNF during late 2011 who will also secure contracts for implementation during the 2012 in-stream work window. Biological Opinions and programmatic agreements covered permits include; Oregon Department of State Lands and Department of environmental Quality (exemption for culvert replacements), US Army Corps of Engineers (Regional General Permit to cover culverts replacements under Aquatic Restoration Biological Opinions), and the US Fish and Wildlife Service and the National Marine Fishery Service (programmatic Biological Opinions). CTUIR will provide technical and financial support for this effort while contracting, contract administration and implementation oversight shall be completed by the UNF and the NFJDWC shall facilitate funding transfer between cooperators. Estimated implementation costs for this culvert are expected to be $143,839 through an implementation estimate provided by the USFS reflects the intent to secure a single contract for all three Ten Cent Creek Culverts to reduce contracting costs and streamline implementation. Funding partners for this effort include Bonneville Power Administration through CTUIR, Ecotrust through the NFJDWC, and the UNF. To date, all funds have been secured for permitting and design efforts with partial funding secured for implementation. The balance of implementation funds are covered by this SOW. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. Actual cost share shall be identified at the end of the project; however, UNF cost share at this time constitutes ~13% of total barrier removal costs. While this is below the 30% identified in the MOA, CTUIR's understanding is that this is a region wide agreement and the UNF has or will commit to securing permits, completing the design, securing an implementation contract and administering the contract.

Deliverable Specification: Provide passage to approximately 6 miles of high quality spawning and rearing habitat for adult and juvenile Threatened Mid-Columbia Steelhead trout and opportunistic Bull trout through replacement of an undersized culvert.

Planned Metrics: * # of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range: 6.00 * # of culverts installed in the freshwater non-tidal zone: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2012	4/30/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate funding transfer.
C. Ensure implementation is	7/16/2012	8/16/2012	Completed	Works with the UNF and NFJDWC to insure implementation occurs

complete				according to design.
Deliverable: D. Lower Ten Cent Creek Culvert Replacement		9/14/2012	Completed	See the Deliverable Specification above

The lower Ten Cent Culvert replacement undertaken as a joint effort between the Umatilla National Forest, NFJDWC, and The Project was implemented successfully within the 15 July to 15 August in-stream work window and restored passage to approximately 6.0 miles of existing habitat. The UNF secured and administered a single contract for all three culverts on Ten Cent Creek to reduce costs and minimize disturbances to terrestrial and aquatic resources. The estimated $231,410 cost for all three structures to The Project was close to the $224,302 actual cost. Savings resulted from the contractor's ability to coordinate efforts across the three culverts which were all less than one mile from one another. The existing round culvert was replaced by a pre-cast concrete bridge (Figure 9) and has maintained a stable channel above, below, and through the structure. Monitoring of the structure to date has not identified debris jams or factors which would suggest the structure has been inadequately designed. Spawner surveys conducted by the Project did not identify spawning above the structure. This may have been due to either fish not finding the new access and/or survey timing as summer steelhead trout in a nearby tributary of Granite Creek spawned a month earlier than normal.

Figure 9. Original lower Ten Cent Creek culvert (left) replaced by a pre-cast concrete bridge in 2012.

K: 184. Install Fish Passage Structure

Title: Middle Ten Cent Creek Culvert Replacement

Description: During 2009/10/11 the UNF, NFJDWC, CTUIR cooperated to complete NEPA documentation, culvert surveys for design, and a design and secure additional funding for this effort. Culvert designs shall be completed by the UNF during late 2011 who will also secure contracts for implementation during the 2012 in-stream work window. Biological Opinions and programmatic agreements covered permits include; Oregon Department of State Lands and Department of Environmental Quality (exemption for culvert replacements), US Army Corps of Engineers (Regional General Permit to cover culverts replacements under Aquatic Restoration Biological Opinions), and the US Fish and Wildlife Service and the National Marine Fishery Service (programmatic Biological Opinions). CTUIR will provide technical and financial support for this effort while contracting, contract administration and implementation oversight shall be completed by the UNF and the NFJDWC shall facilitate funding transfer between cooperators. Estimated implementation costs for this culvert are expected to be $71,105 through an implementation estimate provided by the USFS reflects the intent to secure a single contract for all three Ten Cent Creek Culverts to reduce contracting costs and streamline implementation. Funding partners for this effort include Bonneville Power Administration through

CTUIR, Ecotrust through the NFJDWC, and the UNF. To date, all funds have been secured for permitting and design efforts with partial funding secured for implementation. The balance of implementation funds are covered by this SOW. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. Actual cost share shall be identified at the end of the project; however, UNF cost share at this time constitutes ~13% of total barrier removal costs. While this is below the 30% identified in the MOA, CTUIR's understanding is that this is a region wide agreement and the UNF has or will commit to securing permits, completing the design, securing an implementation contract and administering the contract.

Deliverable Specification: Provide passage to approximately 3 miles of high quality spawning and rearing habitat for adult and juvenile Threatened Mid-Columbia Steelhead trout and opportunistic Bull trout through replacement of an undersized culvert.

Deliverable Specification: Provide passage to approximately 3 miles of high quality spawning and rearing habitat for adult and juvenile Threatened Mid-Columbia Steelhead trout and opportunistic Bull trout through replacement of an undersized culvert.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2012	4/2/2012	Completed	Secure a Cooperative Agreement to facilitate funding transfer.
C. Ensure implantation is completed	7/16/2012	8/16/2012	Completed	Work with the UNF and NFJDWC to ensure implementation meets the design
Deliverable: D. Middle Ten Cent Creek Culvert Replacement		9/14/2012	Completed	See the Deliverable Specification above

The middle Ten Cent Culvert replacement undertaken as a joint effort between the Umatilla National Forest, NFJDWC, and The Project was implemented successfully within the 15 July to 15 August in-stream work window and restored passage to approximately 6.0 miles of existing habitat. The UNF secured and administered a single contract for all three culverts on Ten Cent Creek toe reduce costs and minimize disturbances to terrestrial and aquatic resources. The estimated $231,410 cost to The Project for all three structures was relatively close to the $224,302 of actual cost. Savings resulted from the contractor's ability to coordinate efforts across the three culverts which were all less than one mile from one another. The existing round culvert was replaced by a bottomless arch on footers (Figure 10) and has maintained a stable channel above, below, and through the structure. Monitoring of the structure to date has not identified debris jams or factors which would suggest the structure has been inadequately designed. Spawner surveys conducted by the Project did not identify spawning above the structures. This may have been due to either fish not finding the new access and/or survey timing as summer steelhead trout in a nearby tributary of Granite Creek spawned a month earlier than normal.

Figure 10. Original middle Ten Cent Creek culvert (left) replaced by a bottomless arch on footers in 2012.

L: 184. Install Fish Passage Structure

Title: Upper Ten Cent Creek Culvert Replacement

Description: During 2009/10/11 the UNF, NFJDWC, CTUIR cooperated to complete NEPA documentation, culvert surveys for design, and a design and secure additional funding for this effort. Culvert designs shall be completed by the UNF during late 2011 who will also secure contracts for implementation during the 2012 in-stream work window. Biological Opinions and programmatic agreements covered permits include; Oregon Department of State Lands and Department of Environmental Quality (exemption for culvert replacements), US Army Corps of Engineers (Regional General Permit to cover culverts replacements under Aquatic Restoration Biological Opinions), and the US Fish and Wildlife Service and the National Marine Fishery Service (programmatic Biological Opinions). CTUIR will provide technical and financial support for this effort while contracting, contract administration and implementation oversight shall be completed by the UNF and the NFJDWC shall facilitate funding transfer between cooperators. Estimated implementation costs for this culvert are expected to be $62,144 through an implementation estimate provided by the USFS reflects the intent to secure a single contract for all three Ten Cent Creek Culverts to reduce contracting costs and streamline implementation. Funding partners for this effort include Bonneville Power Administration through CTUIR, Ecotrust through the NFJDWC, and the UNF. To date, all funds have been secured for permitting and design efforts with partial funding secured for implementation. The balance of implementation funds are covered by this SOW. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. Actual cost share shall be identified at the end of the project; however, UNF cost share at this time constitutes ~13% of total barrier removal costs. While this is below the 30% identified in the MOA, CTUIR's understanding is that this is a region wide agreement and the UNF has or will commit to securing permits, completing the design, securing an implementation contract and administering the contract.

Deliverable Specification: Provide passage to approximately 2 miles of high quality spawning and rearing habitat for adult and juvenile Threatened Mid-Columbia Steelhead trout and opportunistic Bull trout through replacement of an undersized culvert.

Planned Metrics: * # of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range: 2.00 * # of culverts installed in the freshwater non-tidal zone: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2012	4/2/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to ensure funding transfer.
C. Ensure implementation occurs	7/16/2012	8/16/2012	Completed	Work with the UNF and NFJDWC to ensure implementation follows the design.
Deliverable: D. Upper Ten Cent Creek Culvert Replacement		9/14/2012	Completed	See the Deliverable Specification above

The upper Ten Cent Culvert replacement undertaken as a joint effort between the Umatilla National Forest, NFJDWC, and The Project was implemented successfully within the 15 July to 15 August in-stream work window and restored passage to approximately 6.0 miles of existing habitat. The UNF secured and administered a single contract for all three culverts on Ten Cent Creek toe reduce costs and minimize disturbances to terrestrial and aquatic resources. The estimated $231,410 cost to The Project for all three structures was relatively close to the $224,302 of actual cost. Savings resulted from the contractor's ability to coordinate efforts across the three culverts which were all less than one mile from one another. The existing round culvert was replaced by a bottomless arch on footers (Figure 11) and has maintained a stable channel above, below, and through the structure. Monitoring of the structure to date has not identified debris jams or factors which would suggest the structure has been inadequately designed. Spawner surveys conducted by the Project did not identify spawning above the structure. This may have been due to either fish not finding the new access and/or survey timing as summer steelhead trout in a nearby tributary of Granite Creek spawned a month earlier than normal.

Figure 11. Original upper Ten Cent Creek culvert (left) replaced by a bottomless arch on footers in 2012.

M: 197. Maintain/Remove Vegetation

Title: Fox/Cottonwood Creek Leafy Spurge Control

Description: During 2008 North Fork John Day Watershed Council (NFJDWC) and landowners in Fox Valley discussed possible habitat restoration efforts to address multiple issues along an eight mile reach of Fox Creek. Issues included but were not limited to channel down cutting, irrigation diversions, and weed control and led to a grant application by the NFJDWC and subsequent approval to support a Watershed Analysis. The NFJDWC has begun the analysis controlling noxious weeds along Fox Creek and

downstream into Cottonwood Creek. Efforts in 2011 shall reevaluate the success in 2010 and provide additional treatments to reduce the infestation. With respect to this effort; Leafy Spurge first became established in the pastures of Fox Valley approximately 30 years ago and moved into the riparian areas and then downstream into Cottonwood Creek and the North Fork John Day River. In 2009 the NFJDWC surveyed and treated infestations on private lands bordering the Malheur National Forest in an attempt to stop the infestation and during 2010 efforts continued along much of Fox/Cottonwood Creek as landowners agreed. Efforts in 2010 identified the infestation, treated those areas and conducted effectiveness surveys and will continue these efforts for an additional two years. This treatment has been shown effective in Fox Valley and will benefit the local community significantly through the purchase of materials and supplies, employ local residents, and improve grazing opportunities throughout the valley. By improving upland and the off-riparian areas the riparian areas, wetlands, and creek shall suffer less damage through modified land management practices and improve conditions for Threatened Mid-Columbia trout throughout the project area. Additionally, water quality, shallow groundwater storage, and flow timing shall improve while allowing the landowners to more effectively manage their operations. The NFJDWC and their cooperators have personnel licensed and experienced in conducting noxious weed infestations and control (both biological and chemical)efforts. They have been conducting surveys and implementing control measures for the past several years with and without cooperators.

Deliverable Specification: The NFJDWC shall re-survey (1377 acres) and treat (estimated 260 acres with herbicide, estimated 85 acres with bio-control) the riparian area along 38 miles of Fox and Cottonwood Creeks. Bio-controls shall be applied to infestations within 90 feet of the waterline and herbicides from 90 feet to 150 feet from the waterline. CTUIR shall provide funding for surveying and treating approximately 100 acres of the infestation.

Planned Metrics: * # of riparian miles treated: 10.00 * # of acres of upland non-wetland habitat treated: 30.00 * # of acres of upland wetland habitat treated: 0.00 * # of acres of riparian non-wetland habitat treated: 50.00 * # of acres of riparian wetland habitat treated: 0.00 * # of acres of freshwater non-wetland habitat treated: 0.00 * # of acres of freshwater wetland habitat treated: 0.00 * # of acres of estuarine wetland habitat treated: 0.00 * # of acres of estuarine non-wetland habitat treated: 0.00 * # of estuarine miles treated: 0.00 * # of freshwater miles treated: 0.00 * # of years treated: 2 * # of acres maintained: 80.00 * Biological plant removal: Yes * Herbicide plant removal: Yes * Mechanical plant removal: No * Conduct controlled burn: No

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	4/30/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement with the NFJDWC	2/1/2012	4/30/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate project implementation.
C. Complete Survey	3/15/2012	11/15/2012	Completed	Survey treated and non-treated areas over the last two years and identify areas requiring treatment.
D. Complete Treatments	4/2/2012	11/2/2012	Completed	Complete treatments as called for in the project design.
Deliverable: E. Fox / Cottonwood Creek Leafy Spurge Control		12/3/2012	Completed	See the Deliverable Specification above

Noxious weed control efforts regarding Leafy Spurge completed in 2012 included monitoring in early spring and late summer and treatments in late spring and early summer. Treatments (Figure 12) from

2011 proved successful although additional infestations were identified. Treatments by both the NFJDWC and Grant Weed Control in cooperation with the NFJDWC included herbicide treatments within riparian and floodplain areas Under HIP III allowances and in hard to reach areas on foot. Additionally bio-controls were placed in later summer where appropriate. To date treatments have proven successful although surveys have shown the infestation to be more expansive then originally estimated. The NFJDWC will continue to treat infestations beyond 2012 using grant funding they have secured to the extent possible.

Figure 12. Treated area in 2010 (upper left), the same area during 2011 (upper right), and successful biological controls from 2010 noted in 2012 (lower left).

N: 98. Other

Title: Red Boy Mine Pipeline Replacement

Description: The Red Boy Mine opened in 1886 producing gold, silver, and copper until 1916 at which time it was sold in a sheriff's sale. Sampling conducted during 1996 as part of an EPA-funded study of mines in the Granite Creek Mining District found contamination in the soil, surface water, and sediments from the onsite tailings and effluent flowing from the mine shaft (PH ~3.9). Tailings at Red Boy are over 25 feet thick in some areas, and have the potential for collapsing into Congo Gulch and nearby Clear Creek. Since the current owners of the Red Boy Mine have been unable to pay for mine cleanup Oregon DEQ designated the site as an Orphan project in May 2000. That same year improvements were made to a water-collection system to prevent effluent movement (~60 gallons/minute) through the tailings carrying arsenic, iron and other metals into Congo Gulch and Clear Creek. At this time an effluent collection system drains the mine through a ground level grate just inside shaft and transports it through approximately 500 feet of 6 -inch PVC pipe and into the bottom of an infiltration basin. Unfortunately, the piping system plugs periodically and overflows into Congo Gulch and in effect Clear Creek which suggests that the existing system may be undersized. During 2010 the UNF and NFJDWC met to discuss

the Red Boy Mines and determined that the existing treatment protocols are inadequate. This discussion also identified an outline for addressing the issues including an "emergency" treatment followed by a second phase to evaluate the long term separation from the Bluebird Mine Treatment System (a nearby mine) and improve effluent treatment and conveyance. The NFJDWC has secured funds to implement the pipeline replacement and address the larger issues; however, grant agreements were not secured in time to complete the pipeline replacement in 2011. As such, sampling and design work to address the larger issues will occur during the Fall of 2011 and Spring of 2012 with pipeline replacement and other tasks as identified to be completed in late 2012. Estimated cost at this time for the pipeline replacement is $57,000.

Deliverable Specification: Replace the existing PVC pipeline with an 8-inch high density polyethylene (HDPE) pipeline including air vents and clean outs discharging above the water level of the existing infiltration pond. The new pipeline would be designed such that it would be compatible with the new collection system in the portal once the long term options evaluation was complete. The NFJDWC shall secure additional funding to complement CTUIR's funding during late 2010 and contract with a qualified contractor to complete the work.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	2/29/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement with the NFJDWC	2/1/2012	4/16/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate funding transfer.
C. Coordinate with the NFJDWC during implementation.	5/1/2012	12/31/2012	Active	Work with the NFJDWC to insure the contractor follows the approved design.
Deliverable: D. Red Boy Mine Pipeline Replacement		12/31/2012	Active	See the Deliverable Specification above

A draft assessment of Red Boy mine was completed in early 2012 and reviewed by all involved parties. As the final assessment was expected January, 2013 including all comments and suggestions from cooperators a decision was made to shift the pipeline installation until 2013. Delaying the replacement ensured all factors were accounted and the pipe was appropriately sized before replacement.

O: 29. Increase In-stream Habitat Complexity and Stabilization

Title: Fox Creek Channel Realignment

Description: In response to landowner concerns about the state and function of Fox Creek flowing through their properties, the North Fork John Day Watershed Council conducted an assessment of Fox Creek in 2009. The assessment resulted in a list of potential actions addressing hydrologic, geomorphic, and land management concerns. CTUIR contributed $1,313 using funds from the Pacific Coast Salmon Recovery Fund toward this effort and participated in the 'agency' prioritization meeting. Several priority actions identified by both landowners and agency staff included plugging a section of a flood control channel constructed by the US Army Corp of Engineers in the 1960/70's. The flood control channel effectively dewatered a section of the historic channel of Fox Creek resulting in increased bank erosion, channel widening, and loss of valuable spawning and rearing habitat for listed steelhead and resident redband trout within the historic channel of Fox Creek. The NFJDWC previously secured a design for the effort, bids for implementation, and funding to support implementation. Unfortunately, one of the grant

applications was not funded leaving a shortfall of $25,925.70 and changes between the 50% Design implementation and 100% design Implementation bids project costs. Permits are being secured by the UWFWS and NFJDWC and should be completed prior to the in-stream work window (15 July to 15 August). CTUIR's funds will be used to support implementation construction, implementation oversight, and contract & fiscal management.

Deliverable Specification: Stabilize channel morphology and processes, decrease sediment loading, and increase available spawning and rearing habitat and the quality of that habitat for listed summer steelhead and resident redband trout by permanently abandoning the USACE channel using the plug and pond method.

Planned Metrics: * # of miles of stream with improved complexity: 0.60 * Start latitude of treated stream reach: 44.630868 * End latitude of treated stream reach: 44.636350 * Start longitude of treated stream reach: -119.132212 * End longitude of treated stream reach: -119.141961 * # of unanchored rocks/boulder structures installed for only stabilization: 19

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure Cooperative Agreement	2/1/2012	4/2/2012	Completed	Secure a Cooperative Agreement to outline the roles and contributions of the NFJDWC and CTUIR.
C. Coordinate with the NFJDWC to insure success of implementation and funding transfer.	7/16/2012	8/16/2012	Completed	Coordinate with the NFJDWC to provide technical support during implementation, approve invoices, and insure funding is transfer in a timely manner
Deliverable: D. Fox Creek Channel Realignment		10/15/2012	Completed	See the Deliverable Specification above

The Fox Creek Channel realignment was successfully completed within the 15 July to 30 August in-stream work window. Fish salvage efforts prior to implementation consisted of staff from the NFJDWC, ODFW, The Nature Conservancy, and the CTUIR. The Corps channel was treated with a plug and pond method (Figure 13) to pass water during high flows while maintaining effective flows in the original channel. The treatment has proven successful thus far and efforts to address limiting factors in Fox Creek continue downstream. Large wood placed in 2011 in the old channel has maintained its form and functions and as such, there were no efforts to treat this portion of the stream channel in 2012.

Figure 13. Pictures from after implementation showing water backed up above the plug (left) immediately after implementation and the plug from the downstream side (right).

P: 40. Install Fence

Title: Butcherknife Creek Fence Construction

Description: Building upon previous efforts the UNF, NFJDWC, and CTUIR discussed the construction of approximately 2.25 miles of three strand barbed wire fence within the Hideway Grazing Allotment during 2012 creating a 1,200 acre pasture along 1.5 miles of Butcherknife Creek. The allotment holds 493 cattle from 16 June through 30 September annually on approximately 21,000 acres. Monitoring efforts along Butcherknife Creek over the past several years have identified concentrated livestock use along the stream; in particular, bank alteration has been severe. Over the past several years the permittee has emphasized riding this area to move cattle out of the riparian area with limited success, largely due to topography which funnels cattle down to a narrow, steep sided, and heavily timbered draw. The permittee helped design this project to meet their objectives while meeting the need to improve conditions along and within Butcherknife Creek. This project will create a 1200 acre riparian pasture along1.5 miles of Butcherknife Creek. This effort will finish protective fencing efforts along Butcherknife Creek and the pasture would only be used to gather and move cattle between pastures on either side Livestock use along Butcherknife Creek is expected to be extremely low allowing for riparian recovery and monitoring by the USFS and permittee will continue to ensure objectives are met. Grazing schedules would be annually adjusted based on monitoring results and the permittee would assume responsibility for the maintenance of the fence under their Term Grazing Permit. The final design placed the fence line on the ridge above Butcherknife Creek to reduce maintenance and implementation costs related to pushing a fence through thick timber. Expected implementation costs are estimated to be $28,500 (Labor = $15,000; Materials = $13,500) not including contracting, inspections, layout and design, or the maintenance of the fence. The UNF will provide materials and technical oversight, the NFJDWC will secure and administer a construction contract and CTUIR will provide technical assistance and support the cost of labor. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands.

Deliverable Specification: Construct approximately 2.25 miles of three strand fence along 1.5 miles of Butcherknife Creek.

Planned Metrics: * Start latitude of treated stream reach: 45.141394 * End latitude of treated stream reach: 45.129410 * Start longitude of treated stream reach: -118.693218 * End longitude of treated stream reach: -118.677418 * # of miles of fence installed in a riparian area: 2.25 * # of miles of left streambank fenced in a freshwater area: 1.50 * # of miles of right streambank fenced in a freshwater area: 0.00 * # of cattle guards installed: 1 * Average buffer width: 900.00 * # of acres of upland non-wetland habitat protected by fencing: 1175.00 * # of acres of riparian non-wetland habitat protected by fencing: 25.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2012	4/2/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate coordination.
C. Construct fence	6/1/2012	12/3/2012	Completed	Construct the fence as designed. CTUIR will provide technical assistance and funding for labor.
Deliverable: D. Butcherknife Creek Fence Construction		12/31/2012	Completed	See the Deliverable Specification above

Cooperative efforts between the UNF, NFJDWC, and The Project constructed 2.25 miles of four strand barbed wire fencing along 1.5 miles of Butcherknife Creek. Construction occurred as planned without any issues arising and a total cost to the CTUIR of $17,082 for labor and all materials being provided by the UNF. Maintenance of the structure will be undertaken by the UNF grazing permittee with oversight by the UNF Range Conservationist. Unfortunately photographs of implementation were not collected.

Q: 40. Install Fence

Title: Desolation Creek Fence

Description: During 2010 and 2011 the UNF and NFJDWC worked to secure Title II funds to support the construction of a boundary fence along property owned by Hood River County adjacent to USFS lands. Previous land exchanges and a lack of maintenance by private landowners left what little boundary fence remained on the property line in a severe state of disrepair. As such, cattle had free access to the forest lands from private and private lands from forest lands. Cattle regularly crossed the boundary and held along/within Desolation Creek and its riparian and floodplain areas severely degrading vegetative cover, bank stability, water quality, and the channel morphology of Desolation Creek and the health of springs adjacent to or near Desolation Creek. Previous efforts by CTUIR to work with Hood River County did not prove fruitful and trespass from adjoining USFS allotments only compound the effects of present management on the HRC property. Approximately 25 miles of boundary fence are required to completely enclose the Hood River County property which will be completed as resources become available. This effort will complete 6 miles of fence along the northern boundary and finish off one entire section. Cooperator contributions include the NFJDWC who has secured $42,000 (materials & labor) in Title II funds which will be used to secure a qualified contractor and administer the contract. Hood River County does not have the ability to contribute to the effort at this time though they support the project.

Deliverable Specification: Construct1.75 miles of three strand barbed wire boundary fence.

Planned Metrics: * Start latitude of treated stream reach: 45.983276 * End latitude of treated stream reach: 45.932651 * Start longitude of treated stream reach: -118.905119 * End longitude of treated stream reach: -118.829426 * # of miles of fence installed in a riparian area: 0.00 * # of miles of left streambank fenced in a freshwater area: 0.00 * # of miles of right streambank fenced in a freshwater area: 1.50 * # of other exclusion structures: 2 * Average buffer width: 1700.00 * # of acres of upland non-wetland habitat protected by fencing: 13000.00 * # of acres of riparian non-wetland habitat protected by fencing: 450.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012		Canceled	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2012	4/2/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate permitting and funding transfer.
C. Ensure implementation is completed according to the design	8/15/2012		Canceled	Work with the UNF and NFJDWC to ensure implementation occurs as designed
Deliverable: D. Desolation Creek Fence			Canceled	See the Deliverable Specification above

During 2012, cooperation between the between the UNF, NFJDWC, and The Project identified fenceline location and completed the appropriate permits. Unfortunately, the Title II funds initially granted were revoked and additional Title II funds were not available, requesting funds from other sources were impractical at the time, and cost-share from The Project would not have gone far the effort was dropped for 2012. Further conversations regarding completing the fence in stages were also deemed inadvisable given the lack of participation of the landowner and likelihood of receiving other Title II funds. The landowner has since put the property up for sale and if possible conversations with the new owner will determine the feasibility of future actions.

R: 99. Outreach and Education

Title: Red Boy Sign

Description: The Red Boy Mine opened in 1886 producing gold, silver, and copper until 1916 at which time it was sold in a sheriff's sale. The current owner who is proud of that heritage would like to share it with the public. Grant County Rd 24 passes directly beside footings for one of the mine buildings and provides an opportunity to educate travelers on their way to Olive Lake, Fremont Power Station, the Desolation Creek area, or Granite, OR about the mining history of the area and subsequent efforts within the basin since then.

Deliverable Specification: Secure and post a sign relating the history of the Red Boy Mine to travelers.

Planned Metrics: # of general public reached: 50

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Crate a design for the sign.	2/1/2012	8/31/2012	Completed	Secure a design for the sign
B. Secure a Cooperative Agreement with the NFJDWC	2/1/2012	4/30/2012	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate cooperation.
C. Construct and install the sign.	9/3/2012	1/31/2013	Completed	Construct & install the sign
Deliverable: D. Red Boy Sign		1/31/2013	Completed	See the Deliverable Specification above

Two signs were (Figure 14) developed during a cooperative effort between the owner of the Red Boy Mine, NFJDWC, and The Project. The design created by the landowner and NFJDWC explained the mining history of the area on one sign placed near the foundation of a building associated with the Red Boy Mine. A second sign explained efforts to implement restoration measures to treat hard rock mine effluent and remove tailings left over from placer mining. The signs will effectively answer at least some of the questions visitors ask when exploring the area and show the role of local cooperators identified on the signs.

Figure 14. Signs created and placed to explain both the history of the area which was important to the local residents (top & bottom left) and a second explaining the influence of the mine on local resources and efforts to address them (top & bottom right).

S: 175. Produce Design and/or Specifications

Title: Camas Road Stabilization Design

Description: Over the past several years streambank erosion has moved the channel closer to route 244 just above Ukiah, Oregon creating a long term stability and sediment problem. ODOT has been monitoring the site and expected to install riprap at a later date to stabilize the bank until CTUIR presented an alternative course of action. During 2011 discussions between ODOT and CTUIR considered an alternative design which would create localized habitat while stabilizing the streambank in the face of an actively shifting channel. This effort cannot address the overall sediment issue within the broader reach which was initially addressed during the 2011 performance period (WE X); however, it will be easily visible to the general public and present an example of appropriate measures that would be considered or undertaken during an effort to address the larger sediment issue. At this time, implantation is tentatively slated for 2013 as a joint effort between ODOT and CTUIR. During 2012 CTUIR will use staff personnel to create an engineered design to implement a series of J-hooks or similar structures along a 250' reach of Camas Creek on the northern bank. Implantation will likely include joint efforts by ODOT and CTUIR with funding not yet identified.

Deliverable Specification: Complete an engineered design to stop streambank erosion and create localized in-stream habitat.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Complete topographic survey.	5/1/2012	7/30/2012	Active	Conduct a topographic survey capable of supporting an engineered design.
B. Complete initial design for consideration be ODOT.	6/1/2012	11/30/2012	Active	Provide a 60% design for review by ODOT and a final design.
Deliverable: C. Camas Road Stabilization Design		1/31/2013	Active	See the Deliverable Specification above

The Project originally approached two landowners and the Oregon Department of Transportation in an effort to reduce streambank erosion created by Camas Creek trying to regain appropriate sinuosity. Although all parties were initially interested in stabilizing the streambank near the shoulder of SR 244 one landowner later decided against participating. With the loss of interest and potential for action under the upcoming Camas Creek Coordination Effort planning, permitting, and implementation did not occur. The action was included in the 2014 SOW as means for demonstrating potential structures which could be used to reduce streambank erosion that were relatively unobtrusive.

T: 186. Operate and Maintain Habitat/Passage/Structure

Title: 5 Mile Fence Maintenance

Description: During the early 1990's the UNF constructed riparian enclosures using BPA funds along much of 5 Mile Creek a tributary of Camas Creek and in turn the NFJD; these fences are now in need of heavy maintenance and have successfully improved water quality and in-stream/riparian conditions used by Red Band trout. At the time of construction Steelhead trout accessed the area using a fish ladder constructed by ODFW which is no longer in service. Conversations between the UNF and CTUIR determined that with contribution of materials and labor by the UNF and labor by CTUIR personnel the fences lifespan could be extended at a minimal cost. Up to five miles of fence maintenance will occur with the expectation that the entire amount would not likely be finished by the end of 2012 due to other commitments by both cooperators. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands.

Deliverable Specification: Complete heavy maintenance on up to five miles of riparian fence as time and resources allow.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 2.50 * # of acres protected by fence maintenance: 90.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	4/30/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Confirm which fences are to be maintained and schedule maintenance.	3/30/2012	8/31/2012	Completed	Work with UNF Range Conservationists to confirm which fences are to be maintained and schedule the assistance of UNF personnel.
C. Complete maintenance.	4/2/2012	12/17/2012	Completed	Complete fence maintenance.
Deliverable: D. 5 Mile Fence Maintenance		12/31/2012	Completed	See the Deliverable Specification above

Maintenance on five miles of fence completed by The Projects staff over four days with materials from the UNF. Maintenance primarily included clearing trees, tensioning wire, and rebuilding two structures.

U: 29. Increase In-stream Habitat Complexity and Stabilization

Title: Upper Camas Creek In-stream Implementation

Description: During 2008 CTUIR entered into a Cooperative Agreement with Mr. Forrest Rhinehart to complete grazing improvements on a 250 acre upland pasture and in-stream and riparian habitat improvements within a 40 acre pasture along Camas Creek. This action consists of two phases; Phase I, develop an upland well and cross fencing in an existing pasture while Phase II, construct riparian fencing to exclude cattle from Camas Creek and in-stream restoration efforts to improve in-stream complexity and water quality. The upland well will improve upland grazing management by enabling grazing beyond early July when stock watering ponds dry out and before fall rains fill the ponds again and improve water quality by reducing sediments caught up as cattle spend less time in the ponds. Current grazing management utilizes approximately fifty percent of available upland forage due to the loss of upland stock watering opportunities. An existing upland pasture, in which the well is located, will be subdivided to support rotational cross fencing and fully utilize available forage. In-stream restoration and stream bank modifications will improve in-stream habitat complexity, channel morphology, water quality and riparian health for Threatened Mid-Columbia Steelhead trout and Spring Chinook salmon. In 2008 an upland well was drilled to 310 feet that produced adequate stock watering opportunities and an OWEB grant application was submitted and subsequently awarded to support the installation of a solar pump and upland cross fencing. The riparian fence along Camas Creek was completed in late 2009 and an in-stream design to complete in-stream restoration efforts secured in 2010. The in-stream design identified several area of concern with respect to cultural resources and resulted in a survey which forced a re-design in two specific areas during 2010. This precluded implementation in 2010 and additional issues with cultural resource, NOAA, and county permits which arose during 2011 precluded implementation during 2011. During late 2011 and early 2012 CTUIR will re-consult with Oregon DSL, Corps of Engineers, USFWS, and NOAA so that the appropriate permits are secured.
Thus far, half of the LWD have been secured.

Deliverable Specification: Implement in-stream structures as identified and designed by an in-stream design secured during late 2010 along a 0.8 mile reach of Upper Camas Creek. Oversight by the design contractor shall insure design specifications are met.

Planned Metrics: * # of miles of stream with improved complexity: 0.80 * Start latitude of treated stream reach: 45.158790 * End latitude of treated stream reach: 45.164480 * Start longitude of treated stream reach: -118.805530 * End longitude of treated stream reach: -118.792900 * # of logjam structures installed for both stabilization and complexity: 20 * # of unanchored rocks/boulder structures installed for both stabilization and complexity: 75 * # of rock weir structures installed for both stabilization and complexity: 18

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2012	7/2/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure necessary permits.	2/1/2012	7/2/2012	Completed	Using design specifications provided by the in-stream design secure permits necessary for project implementation. Insure appropriate monitoring personnel are present for implementation efforts.

C. Secure materials.	6/1/2012	7/31/2012	Active	Using design specifications developed during the 2009 design efforts secure necessary materials and supplies.
D. Implement in-stream restoration efforts.	7/16/2012	8/15/2012	Active	Coordinate contractors, suppliers, monitors, and other personnel necessary to implement in-stream restoration efforts.
Deliverable: E. Upper Camas Creek In-stream Implementation		9/14/2012	Active	See the Deliverable Specification above

A disagreement regarding the terms of the upland stock water development and conservation agreement resulted in conversations between the landowner and The Project. After consulting with BPA a decision was made to rescind the conservation agreement leaving all developments in place without cost to the landowner while reserving the right to remove trees from the property which had previously been paid for. The conversations prevented implementation efforts in 2012 and recession of the conservation agreement prevented any improvements to the upland stock water development or in-stream, riparian, or floodplain habitat in 2013. Materials were provided to the landowner so that water gaps could be placed and removed after spring runoff and before freeze-up respectively.

V: 132. Produce (Annual) Progress Report

Title: Submit Annual Report (1 February 11 - 31 January 12)

Description: The annual report summarizes the project goal, objectives, hypotheses, completed and uncompleted deliverables, problems encountered, lessons learned, and long-term planning. Examples of long-term planning include future improvements, new directions, or level of effort for contract implementation, including any ramping up or ramping down of contract components or of the project as a whole. Date range 1 February 2011 to 31 January 2012 will be agreed upon by the COTR and the contractor. This will coincide with the contract period. If producing a technical report for this contract, a discrete experiment, or a peer-reviewed publication, use work element 183: Produce/Submit Scientific Findings Report.

Deliverable Specification: Attach the annual report for the period 1 February 2011 to 31 January 2012 to this contract in Pisces.

Planned Metrics: * Start date of reporting period : 2/1/2011 * End date of reporting period : 1/31/2012

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Review annual report format requirements	2/1/2012	4/2/2012	Completed	Contractor must review formatting requirements before starting the first draft of their report. Please follow the BPA-required format. http://www. efw.bpa.gov/Integrated_Fish_and_Wildlife_Program/technicalreports. aspx
B. Complete the report	4/2/2012	12/31/2012	Completed	Complete a report detailing efforts undertaken during the 2010 contract.
C. Confirm BPA has posted the report	1/1/2013	1/31/2013	Completed	It usually takes BPA no more than 30 days to get the report posted.
Deliverable: D. Upload final report		1/31/2013	Completed	See the Deliverable Specification above

The annual report for the 2012 performance period was not completed due to time spent on the 2013 I.S.R.P. Proposal due in February 2013 and subsequent 2013 planning and implementation efforts. As such, the 2012 and 2013 annual reports are contained within this document.

W: 119. Manage and Administer Projects

Title: Produce Project Deliverables

Description: Submit next year's Statement of Work (SOW), Budget, and Property Inventory to the BPA COTR. Produce metric forms for each applicable Reasonable and Prudent Alternative (RPA), as well as project deliverables and project accomplishment narratives.

Deliverable Specification: Submit next year's SOW, Budget, and Property Inventory to the BPA COTR. The SOW should include location information (latitude and longitude) for those work elements that require it. If contractor or contractor's organization takes longer than 30 days to sign the contract, the contractor will need to send this funding package to BPA more than 90 days before the end of the current contract.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Accrual - Submit September estimate to BPA	9/3/2012	9/28/2012	Completed	Provide BPA with an estimate of contract work that will occur prior to September 30 but will not be billed until October 1 or later. Generally, this should be done by September 10.
B. Attend RRNW Symposium.	1/28/2013	1/31/2013	Completed	Attend RRNW Symposium in Stevenson, Washington.
C. Attend Wildlands Hydrology Level III course	5/14/2012	5/24/2012	Completed	Attend the Wildlands Hydrology Level III course in Shepardstown, WV.
Deliverable: D. Funding Package - Submit draft to COTR		1/31/2013	Completed	See the Deliverable Specification above

One of the projects staff attended the RRNW Symposium and two attended the Wildlands Hydrology Level III course.

X: 185. Produce Pisces Status Report

Title: Periodic Status Reports for BPA

Description: The Contractor shall report on the status of milestones and deliverables in Pisces. Reports shall be completed either monthly or quarterly as determined by the BPA COTR. Additionally, when indicating a deliverable milestone as COMPLETE, the contractor shall provide metrics and the final location (latitude and longitude) prior to submitting the report to the BPA COTR.

Deliverable Specification:

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Feb-Mar 2012 (2/1/2012 - 3/31/2012)	4/1/2012	4/15/2012	Completed	
B. Apr-Jun 2012 (4/1/2012 - 6/30/2012)	7/1/2012	7/15/2012	Completed	
C. Jul-Sep 2012 (7/1/2012 - 9/30/2012)	10/1/2012	10/15/2012	Completed	
D. Oct-Dec 2012 (10/1/2012 - 12/31/2012)	1/1/2013	1/15/2013	Completed	
E. Final Jan 2013 (1/1/2013 - 1/31/2013)	1/17/2013	1/31/2013	Completed	

Completed and submitted before of shortly after the due date for approval.

Y: 40. Install Fence

Title: Mud Creek Fence

Description: Prior to this effort the landowner and ODFW had cooperated to construct a riparian fence along Hideway Creek and develop alternative stock watering sites. During 2012 ODFW and the landowner contacted CTUIR concerning a fence along Mud Creek, a tributary of Hideway and in turn Camas Creek. Additionally the landowner is working with CTUIR to reestablish Camas in several upland areas. The landowner is now interested in exclusion fencing along Mud Creek to prevent cattle from loitering along Mud Creek and disturbing the riparian area. While this stream does not produce trout or salmon it does provide viable habitat for juvenile fish in its lower reaches and conducts water from low gradient meadows above. The landowner has secured CSP funds and ODFW has materials available for use in fence construction during 2012 which will be supplemented with funding and permitting efforts by CTUIR. Additional efforts during 2013 and beyond will include additional fencing to exclude cattle from Mud Creek, stock water developments, and educational opportunities.

Deliverable Specification: Install up to 7,900 feet of four strand New Zealand wire fence as agreed upon by all cooperators to restrict cattle access by grazing cattle. ODFW hall provide materials, the landowner shall provide funding for labor, and CTUIR shall provide permitting and funding for labor.

Planned Metrics: * Start latitude of treated stream reach: 45.144590 * End latitude of treated stream reach: 45.157760 * Start longitude of treated stream reach: -118.777820 * End longitude of treated stream reach: -118.783990 * # of miles of fence installed in a riparian area: 1.50 * # of miles of left streambank fenced in a freshwater area: 0.50 * # of miles of right streambank fenced in a freshwater area: 1.00 * # of water gaps: 1 * Average buffer width: 100.00 * # of acres of riparian non-wetland habitat protected by fencing: 16.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	6/1/2012		Canceled	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a construction contract	9/3/2012		Canceled	Accept bids for fence construction from qualified contractors.
C. Ensure the fence is constructed and follows NRCS specifications.	8/1/2012		Canceled	Confirm and evaluate fence construction follows NRCS specifications.
Deliverable: D. Mud Creek Fence			Canceled	See the Deliverable Specification above

Permits for implementation did not arrive until late 2012. While implementation may have begun in late 2012 the project did not want to cause undue damage to the property while soils were wet. As such implementation was rescheduled for 2013.

Z: 40. Install Fence

Title: RPB Fence

Description: CTUIR has previously secured a Conservation Agreement on the BRP Property along the M.F. John Day River which bounds The Nature Conservancies Dunstan Ranch property. Cattle trespass onto the RPB property has raised concerns which will be resolved through the construction of approximately 47,500 feet of four strand barbed wire fence around the property. This is a joint effort

where the landowners and The Nature Conservancy are supplying materials, the Warm Springs Tribe will provide construction labor and permitting, and CTUIR will provide materials. Additional assistance is currently being sought from ODFW and others.

Deliverable Specification: Provide barbed wire, staples, spikes, and posts for the construction of approximately 5,280 feet of four strand barbed wire fence.

Planned Metrics: * Start latitude of treated stream reach: 44.750680 * End latitude of treated stream reach: 44.762160 * Start longitude of treated stream reach: -118.857700 * End longitude of treated stream reach: -118.857950 * # of miles of fence installed in a riparian area: 9.00 * Start date of lease: 6/1/2004 * # of miles of left streambank fenced in a freshwater area: 2.00 * # of miles of right streambank fenced in a freshwater area: 2.00 * # of water gaps: 1 * Average buffer width: 100.00 * # of acres of upland non-wetland habitat protected by fencing: 900.00 * # of acres of riparian non-wetland habitat protected by fencing: 80.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	6/1/2012	9/28/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Provide materials for construction	8/1/2012	8/31/2012	Completed	Provide wire for approximately 5,280 feet of four strand barbed wire fence, 1 box of staples, one box of spikes, and 50 green treated posts.
C. Ensure construction has been completed according to NRCS specifications	8/1/2012	1/15/2013	Active	Coordinate with cooperators to ensure fence construction occurs and meets NRCS specifications.
Deliverable: D. RPB Fence		1/15/2013	Active	See the Deliverable Specification above

This joint effort between the TNC, CTWSRO, and The Project strove to construct fence on TNC property to prevent cattle access on to a property the CTUIR maintains a conservation agreement. For this effort all cooperators were to provide materials with the TNC and CTWSR providing labor as well. Permitting efforts supported by the CTRWSSS were completed in late 2012 delaying implementation to 2013. The Project passed on materials for this effort in late 2012.

AA: 156. Develop RM&E Methods and Designs

Title: CTUIR Monitoring Plan Development

Description: In order to report standard progress against regionally defined limiting factors the CTUIR Fisheries Habitat Program needs to create a set of protocols to measure the changes imparted to aquatic habitats as a result of CTUIR efforts. During the past several years the projects of the Habitat Program are increasingly focused on the elements of the CTUIR Rivervision to reconcile proposed projects with tribal culture as well as prioritizing ad justifying their validity along with other documents such as subbasin plans and recovery documents. While CHAMPS and other region wide efforts are assembling protocols for habitat measures, it is important that we are able to independently defend the results of the CTUIR Accords work while reconciling those methods with regional monitoring protocols/efforts as best as possible. Accordingly, the CTUIR measurements and resulting descriptions of floodplain processes differ from those currently considered in regional processes (CHAMPS and PNAMP suggestions). For example our work frequently includes deliberate changes to surface/groundwater

exchange, which are currently poorly characterized in CHAMPS and other region-wide habitat protocols. In order to meet this need we suggest a short and focused effort to produce an inclusive physical habitat monitoring plan. While individual restoration projects will have a unique set of conditions and a particular monitoring design, the goals of reducing the limiting factors remains constant. Baseline or trend, pre-project, implementation and effectiveness monitoring vary considerably by scale and currently, are poorly addressed by regional monitoring guidance (ex. CHAMPS). Toward this end we anticipate assembling sets of prioritized methods for each of the monitoring types listed above. Rather than being exclusively prescriptive, this monitoring document will serve as a foundation to build individual monitoring plan for each project. We anticipate that each of the individual basin habitat projects will develop focused monitoring plans that tier to the CTUIR central physical monitoring plan. Drawing from this central document each of the individual monitoring plans will be fit to the sites and the particular issues and dynamics that influence the limiting factors on the sites. To meet a short timeline, we will assemble a small team (maximum of 5) including external experts to outline and produce a physical habitat monitoring plan in the next seven months drawing on the experience of the short, intense effort to create the Rivervision as an example to address this need. Using the CTUIR Rivervision, we will identify several central disciplinary themes (ex. geomorphology, open channel hydrology and hyporheic hydrology) and organize suites of monitoring methods around them. The final plan shall develop a suite of standardized monitoring practices addressing geomorphology, hydrology (surface and hyporheic), and riparian (vegetation) shall be developed to be used for pre and post restoration treatment efforts. Parameters associated with each Rivervision touchstone shall be arrayed to describe and create graphic relationships and discuss scale constraints related to MorPHoGEN - Multiscale Physical habitat Guidance. At this time CTUIR's Fishery Research Program is developing a similar monitoring plan with communication between Habitat and Research; eventually the two plans will be reconciled.

Deliverable Specification: A report consisting of a suite of useful monitoring practices reconciled with CTUIR's River Vision, CHAMPS, and PNAMP to be used by CTUIR's Fishery Habitat Program. The resulting suite of practices will allow individual basin projects to select appropriate methods to satisfactorily track effectiveness and long term trends within individual basins while allowing for reconciliation with broader scope multi-basin plans.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	6/1/2012	6/29/2012	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Attend cooperator meetings	6/1/2012	11/30/2012	Active	Attend July, September, and November meetings and participate in literature searches and writing efforts between the meetings.
C. Review, revise, and Publish protocol, study design, and methods in monitoringmethods.org	6/1/2012	1/31/2013	Active	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., Published through monitoringmethods.org), preferably prior to data collection. Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.
D. Produce draft monitoring protocols.	10/1/2012	1/15/2013	Active	Produce draft monitoring protocols and secure peer and supervisor review of the proposed protocols to be finalized and submitted to CTUIR's DNR Dept.
E. Submit Draft monitoring plan to BPA for review and comment	12/3/2012	1/18/2013	Active	Submit the draft plan to BPA personnel for review and comment.
F. Subcontract for USGS	1/1/2013	1/31/2013	Active	Secure contract to support the USGS development of the Vegetation Chapter for the monitoring plan and provide input for all other chapters.

Deliverable: G. CTUIR Monitoring Plan Development	1/31/2013	Active	See the Deliverable Specification above

With the more recent push to standardize monitoring practices throughout the Columbia River Basin the project cooperated with staff from NOAA, USGS, and the CTUIR's Geography Department to develop a standardized set of monitoring practices for the CTUIR's Fishery Habitat Program. This plan essentially identifies a set of monitoring protocols drawn from existing literature and/or plans and identified standardized objectives for the program. Through this document project leads can select objectives specific to an individual effort and in turn appropriate monitoring protocols to track progress toward meeting the objectives. The plan does not attempt to develop a new or replace existing RM&E plans such as the Bio-Monitoring Plan developed and implemented by the CTUIR Fishery Research Program. Rather the plans will be used for status and trend monitoring implemented by individual project leads.

Delays in 2012 regarding establishing contracts and beginning work prevented our ability to complete the plan in 2012. As such this work element will be contained within the 2013 SOW as well. A final draft plan is currently being reviewed by NOAA and USGS staff prior to final drafting AND APPROVAL BY THE CTUIR. Once the final plan has been completed it will be attached to The Projects 2014 contract in Pisces.

AB: 34. Develop Alternative Water Source

Title: Upper Camas Stock Water Development Improvement

Description: In 2008 CTUIR and the landowner of the Upper Camas Creek property entered into a 15 tear Conservation Agreement that included the development of an upland well and associated cross fencing, riparian exclusion fencing and in-stream improvements. Upland efforts completed in 2009 have allowed for rotational pasture management and supplemented previously existing ponds which would typically dry out by early July leaving unused forage on the ground during the summer months. The solar powered well installed to extend summer grazing has operated as designed but is unable to provide winter watering opportunities and as such, the landowner is requesting that power be brought in by wire to allow the installation of heated troughs. This work element supports that effort once CTUIR and the landowner agree upon an appropriate cost-share and the roles of each party with the landowner paying power bills. At this point discussions have not produced an agreement for the new management strategy.

Deliverable Specification: Deliver power to the water development by wire stretched from the landowners residence 1 mile distant. Columbia Power will complete the installation with CTUIR modifying the existing troughs (two new insulated troughs) and pomp apparatus as appropriate.

Planned Metrics: # of alternate water sources installed in the upland: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	6/29/2012		Canceled	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Identify appropriate contributions of the landowner and CTUIR	6/29/2012		Canceled	Discussions between CTUIR and the landowner will need to identify appropriate cost-share, the role of each party during implementation and maintenance during the life of the Conservation Agreement. At this point these matters have not been settled and discussions continue.

C. Secure implementation contract	9/3/2012		Canceled	Upon agreement by CTUIR and the landowner Columbia Power will be contracted to install wire, poles, and meter to the well house.
D. Install troughs and associated equipment	9/3/2012		Canceled	This change in management requires switching the existing troughs with new insulated plastic troughs placed on a concrete pad. Associated efforts may require replacing the existing pump and installing a pressure tank.
Deliverable: E. Upper Camas Stock Water Development Improvement			Canceled	See the Deliverable Specification above

A disagreement regarding the terms of the upland stock water development and conservation agreement resulted in conversations between the landowner and The Project. Given the ongoing conversation The Project decided to settle the disagreement before implementing any further actions.

2013 WORK ELEMENT DETAILS

A: 114. Identify and Select Projects

Title: Identify, Prioritize and Select Habitat Project Areas

Description: Coordinating with landowners, agencies, and the North Fork John Day Watershed Council (NFJDWC) allows us to identify and select passive habitat restoration (riparian fencing, native revegetation and off-stream water improvements), active habitat restoration (in-stream complexity improvements), passage, and restoration efforts related to past resource extraction efforts within the Lower Camas, Upper Camas, Desolation and Granite Creeks Geographic Areas (GA's) in FY 2013 and beyond. Projects are identified and ranked throughout the year in an effort to take advantage of available opportunities, cooperators, and funding. During the performance periods third actions not conducted during the current contract year are prioritized according to restoration effectiveness and feasibility, financial constraints, and cooperation with individuals, groups, and agencies for implementation during consecutive performance periods. Restoration projects are identified by meeting with individuals, public meetings, interagency coordination efforts and communication, watershed council and conservation district meetings and communications, and opportunistic cost-share opportunities. These efforts require constant review of sub-basin and recovery plans, watershed analyses, management plans (grazing, EIS, others), county records, and funding resources. Project personnel also direct landowners to potential cooperative partners such as the U.S. Department of Agriculture (USDA), NF John Day Watershed Council, and soil and water conservation districts. CTUIR works to secure Riparian Conservation Agreements within the Lower Camas, Upper Camas and Desolation Creek Geographic Areas for a minimum term of 15 years and a maximum term of perpetuity. Landowners accept BPA-funded habitat improvements and CTUIR's maintenance of these improvements in lieu of direct funding which allows for cooperative restoration efforts whereby riparian corridor widths, fence specifications, water development locations and numbers are identified for the life of the easement. These negotiations can consume a considerable amount of time. Often requiring constant attention and the willingness to act as opportunities present themselves.

Deliverable Specification: Prepare and secure Riparian Conservation Agreements where feasible by working with individuals, groups, and agencies to develop priority areas to enhance riparian, in-stream, and other resource enhancements. Select priority habitat restoration and protection projects within the Lower Camas, Upper Camas, Desolation and/or Granite Creeks GA's in FY 2013 and beyond. A list of priority 2014 habitat enhancement projects shall be developed by October 31, 2013.

Milestone Title	Start Date	End Date	Status	Milestone Description
Deliverable: A. Identify, Prioritize and Select Habitat Project Areas		11/1/2013	Completed	See the Deliverable Specification above

A draft statement of work and associated budget were submitted to BPA as required and reflected outreach and coordination efforts that occurred during 2013.

B: 165. Produce Environmental Compliance Documentation

Title: Produce Environmental Compliance Documentation

Description: Complete and submit Environmental Compliance documentation to BPA.

Deliverable Specification: Provide and support environmental compliance documentation efforts in the NFJD basin.

Planned Metrics: * Are herbicides used as part of work performed under this contract?: Yes * Will water craft, heavy equipment, waders, boots, or other equipment be used from outside the local watershed as part of work performed under this contract?: No

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Provide BPA EC Lead with calendar year 2014 proposed herbicide use form	11/1/2013	1/31/2014	Completed	Contractor submits any proposed herbicide use on an approved form to the BPA EC Lead. The BPA EC Lead will send the form out in December of each year; it will be due January 31. Use this milestone only when you are using BPA funding to apply herbicides as part of your work.
B. Provide BPA EC Lead with calendar year 2013 actual herbicide use form	11/1/2013	1/31/2014	Completed	Contractor submits any actual herbicide use on an approved form to the BPA Environmental Compliance Lead. The BPA EC Lead will send the form out in December of each year; it will be due January 31. Use this milestone only when you are using BPA funding to apply herbicides as part of your work.
C. Determine if contract work could adversely affect Pacific lamprey	2/1/2013	1/31/2014	Completed	Contractor will review work proposed under this contract and determine the following: 1) Will field work take place in any area where lamprey may be present? (Any tributary or subbasin where anadromous fish exist is also accessible Pacific lamprey habitat.) 2) Are there any stream disturbing activities or in-stream activities that could adversely impact Pacific lamprey? Examples of activities posing a threat to lamprey may include (this list is not intended to be all-inclusive): aquatic habitat improvements, fish passage improvements, culvert replacements, water diversions, altered management of water flows, dewatering of any portions of streams, or alteration of irrigation practices. If you answer no to EITHER 1 or 2 above, the following does not apply. If the answer is yes to BOTH 1 and 2, the contractor must implement USFWS Best Management Practices to Minimize Adverse Effects to Pacific Lamprey (Entosphenus tridentatus) http://www.fws.gov/pacific/Fisheries/sphabcon/lamprey. By Feb 15 each year, the contractor should report any lamprey observations during the previous calendar year to US Fish and Wildlife Service contacts listed at http://www.fws.gov/pacific/Fisheries/sphabcon/lamprey/. This data should include date, location (river mile or GPS), number of individuals, and life stage. Report the life stage as ammocoete (larval stage with undeveloped eyes, found burrowed in substrate), macropthalmia (free-swimming juvenile stage with developed eyes) or adult. See page 10 of the BMP document for pictures. This milestone end date should match the last day of any field work that could adversely impact Pacific lamprey, under this contract, or the Feb 15 reporting date, whichever comes later.
D. Inspect water craft, waders, boots, etc. to be used in or near water for aquatic invasive species	2/1/2013	1/31/2014	Completed	Aquatic invasive Species Guidance: Uniform Decontamination Procedures: http://www.aquaticnuisance.org/wordpress/wp-content/uploads/2009/01/ Recommended-Protocols-and-Standards-for-Watercraft-Interception-Programs-for-Dreissenid-Mussels-in-the-Western-United-States-September-8.pdf --Best management guidance for boaters: http://www.coastal.ca.gov/ccbn/bmp-boaters.pdf --Aquatic Nuisance Species newsletter: http://www.aquaticnuisance.org/newsletters --State Aquatic Invasive Species Management Plans: Oregon: http://www.clr.pdx.edu/publications/files/OR_ANS_Plan.pdf --Washington: http://www.wdfw.wa.gov/publications/pub.php?id=00105 --Montana: http://www.anstaskforce.gov/Montana-FINAL_PLAN.pdf --Idaho: http://www.idahoag.us/Categories/Environment/InvasiveSpeciesCouncil/ documents/Idaho%20Aquatic%20Nuisance%20Species%20Plan.pdf
E. Inspect and, if necessary, wash vehicles and equipment	2/1/2013	1/31/2014	Completed	Prevent spread of invasive species.

infested with terrestrial invasive species				
F. Complete and document public involvement activities and provide to EC Lead	2/1/2013	1/31/2014	Completed	Public involvement is any outreach to the public or landowners about specific actions that are proposed. This could be public letters, meetings, newspaper notices, posted notices at local facilities, or information booths at local events.
G. Participate in ESA Consultation	2/1/2013	1/31/2014	Completed	Work may include drafting BA, completing HIP II BO Project Notification Form, providing copy of Section 10, 4(d), or 6 permit, etc.; or submitting Hatchery Genetic Management Plan to BPA for ESA consultation initiation, and providing input for the ensuing consultation.
H. Participate in Cultural/Historic Resource Consultation	2/1/2013	1/31/2014	Completed	Examples include providing maps and detailed project descriptions, contracting for an archaeological survey, etc.
I. Obtain/Renew applicable local, state, federal and tribal environmental permits	2/1/2013	1/31/2014	Completed	Work done to obtain permits such as Sec. 401 or 404 (including RGP process), shoreline, NPDES, or any other required federal, state, or local permits.
J. Obtain BPA's EC Lead sign-off that EC requirements are complete	2/1/2013	1/31/2014	Completed	The EC column on the contract SOW tab in Pisces must have a "full moon" for each work element requiring environmental compliance before ground-disturbing implementation of that work element can begin. You will receive verbal or email notification from the EC Lead when a work element or, in rare instances, a portion of a work element is approved for implementation.
K. Use Best Management Practices to stabilize soils and prevent spread of noxious weeds	2/1/2013	1/31/2014	Completed	Use applicable BMPs to retain existing vegetation and achieve re-establishment of vegetation in disturbed areas to at least 70% of pre-disturbance levels. Visit chapter 7.3 of http://www.ecy.wa.gov/pubs/0410076.pdf for BMPs to consider for construction contracts and http://wdfw.wa.gov/publications/01330/wdfw01330.pdf for guidance on re-vegetation in the Columbia River Basin.
L. Work with EC Compliance Lead to ensure permitting requirements have been completed	2/1/2013	1/31/2014	Completed	Work with EC Compliance Lead to ensure permitting requirements have been completed.
Deliverable: M. Produce Environmental Compliance Documentation		1/31/2014	Completed	See the Deliverable Specification above

Proposed and actual weed treatments to occur under HIP III were submitted to BPA. Treatments are not expected to change significantly during 2013 although save the addition of one new property and adjustments to another which came on line in 2012. Consultation with the CTUIR's Lamprey Project staff occurred prior to implementing the Granite Creek Streambank Stabilization effort.

C: 99. Outreach and Education

Title: Provide Outreach and Education

Description: The project shall conduct outreach efforts (public meetings, tours, and presentations) to obtain input, identify landowner and resource agency concerns, provide educational opportunities, and promote stream habitat restoration and protection; provide coordination between the project and participating cooperators involved in project work. Outreach efforts will be directed towards, both FY 2013 and 2014 activities.

Deliverable Specification: Conduct public outreach and educational opportunities for landowners and agencies to develop public awareness of habitat conservation and project effectiveness through tours and in cooperation with the NF John Day Watershed Council (outreach fairs, conversations with the public) to reach landowners. Attend 8-12 NFJDWC meetings and actively participate as a member of the council.

Planned Metrics: # of general public reached: 15

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Provide tours and presentations to the general public, interest groups, school groups, etc.	2/1/2013	1/31/2014	Completed	Provide educational or outreach efforts to show and explain the projects efforts, goals, and objectives. This milestone is closely related to WE 114 in that tours and presentations may also be used to inform cooperative partners of potential projects and efforts conducted through the NF John Day Watershed Councils outreach and educational efforts.
B. Attend 8-12 NFJDWC meetings	2/1/2013	1/31/2014	Completed	Attend NFJDWC meetings in an effort to educate the public and others about CTUIR's efforts and opportunities in the basin. This milestone is closely related to WE 114.
Deliverable: C. Provide Local Community-Based Outreach and Education		1/31/2014	Completed	See the Deliverable Specification above

Outreach and education for 2013 was primarily related to the Camas Creek Coordination effort for 2013. A large amount of time spent on the 2013 I.S.R.P. Proposal and subsequent work answering questions largely prevented a concerted effort in outreach as projects in the pipeline were adequate to develop the 2014 SOW. The Project did however, make efforts to attend and participate in NFJDWC and Monument SWCD meetings.

D: 186. Operate and Maintain Habitat/Passage/Structure

Title: Maintain Water Developments

Description: Prevent in-stream stock watering opportunities to better distribute livestock in upland areas improving grazing management, stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat and increase thermal cover, pool habitat, channel shading, and native plant recovery and succession for terrestrial and aquatic wildlife with an emphasis on those species that fall within CTUIR's First Foods Policy and/or are listed species. This WE includes maintenance of troughs, associated plumbing, and pumps.

Deliverable Specification: Five wells, 17 water developments, and four ponds within existing project areas shall be inspected weekly by project personnel to insure that they are functioning properly and

continue prevention of livestock watering from streams, as necessary. Projects sites include Upper and Lower Camas Creek, Snipe Creek, Owens Creek, Deer Creek, and the Lower North Fork John Day River. Maintenance needs are dependent upon the presence of cattle and will be assessed throughout the project year.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 9.80 * # of acres protected by fence maintenance: 748.10

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Project personnel shall repair water developments as needed - First Quarter	2/1/2013	4/30/2013	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's first quarter.
C. Project personnel shall repair water developments as needed - Second Quarter	5/1/2013	7/31/2013	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's second quarter.
D. Project personnel shall repair water developments as needed - Third Quarter	8/1/2013	10/31/2013	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's third quarter.
E. Project personnel shall repair water developments as needed - Fourth Quarter	11/1/2013	1/31/2014	Completed	During weekly inspections, water developments shall be maintained by project staff during the project's fourth quarter.
Deliverable: F. Maintain Water Developments		1/31/2014	Completed	See the Deliverable Specification above

Maintenance of water structures occurred between April and October of 2012. Maintenance did not identify or require excessive efforts or a change in policy or practice as a result of these efforts. Water gaps required the most maintenance due to woody debris and the like deposited during high flows after gaps were removed in the fall and replaced in the spring.

E: 26. Investigate Trespass

Title: Investigate for Livestock Trespass

Description: Removing livestock will improve stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat and increase thermal cover, pool habitat, channel shading, and native plant recovery and succession for mammals and adult and juvenile Threatened Mid-Columbia Steelhead trout and Chinook salmon.

Deliverable Specification: Identify livestock trespass into restricted access areas such as riparian enclosures along approximately 12 miles of stream: Inspect project areas on a weekly basis for trespass and address maintenance issues which allowed the trespass.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Inspect project areas for trespass livestock on at least a weekly basis - First Quarter	2/1/2013	4/30/2013	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's first quarter.
B. Inspect project areas for trespass livestock on at least a weekly basis - Second Quarter	5/1/2013	7/31/2013	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's second quarter.
C. Inspect project areas for trespass livestock on at least a weekly basis - Third Quarter	8/1/2013	10/31/2013	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's third quarter.
D. Inspect project areas for trespass livestock on at least a weekly basis - Fourth Quarter	11/1/2013	1/31/2014	Completed	During weekly inspections, livestock discovered within riparian enclosures shall be promptly removed by project staff during the project's fourth quarter.
Deliverable: E. Investigate for Livestock Trespass		1/31/2014	Completed	See the Deliverable Specification above

Investigations of livestock trespass occurring between May and October did not identify significant issues with fence suitability or maintenance. Although trespass did occur in several instances repairs to fencelines and gates corrected the issue. In one instance the adjacent landowner was notified to correct a maintenance issues on their property.

F: 186. Operate and Maintain Habitat/Passage/Structure

Title: Maintain Fences

Description: As necessary, existing riparian enclosure fences shall be maintained and repaired by project personnel to exclude livestock from restricted access areas. This shall insure continued improvement of stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat, and increased thermal cover, pool habitat, channel shading, and native plant recovery and succession for mammals and adult summer steelhead and juvenile spring Chinook salmon and summer steelhead. Sites shall include Upper and Lower Camas Creek, Snipe Creek, Owens Creek, Deer Creek, and the Lower North Fork John Day River.

Deliverable Specification: Conduct weekly inspections on approximately 23 miles of riparian and floodplain protection fencing to continue exclusion of livestock from existing project riparian corridors and floodplain areas: Inspections will not cover the entire fence every week; only a portion of the fence equal to 1/4 of the fence unless trespass or damage is noted while completing WE 26 and 186. These fences enclose approximately 11 stream miles and include maintenance of 19water gaps. Maintenance needs are dependent upon the presence of cattle and will be assessed throughout the project year.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 20.00 * # of acres protected by fence maintenance: 748.10

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Project personnel shall repair fences as needed - First Quarter	2/1/2013	4/30/2013	Completed	During weekly inspections, fence repair shall occur by project staff during the project's first quarter.
C. Project personnel shall repair fences as needed - Second	5/1/2013	7/31/2013	Completed	During weekly inspections, fence repair shall occur by project staff during the project's second quarter.

Quarter				
D. Project personnel shall repair fences as needed - Third Quarter	8/1/2013	10/31/2013	Completed	During weekly inspections, fence repair shall occur by project staff during the project's third quarter.
E. Project personnel shall repair fences as needed - Fourth Quarter	11/1/2013	1/31/2014	Completed	During weekly inspections, fence repair shall occur by project staff during the project's fourth quarter.
Deliverable: F. Maintain Fences		1/31/2014	Completed	See the Deliverable Specification above

Fencelines were maintained between April and October and did not identify significant issues with suitability or maintenance beyond trees falling over the winter and where trespass occurred.

G: 197. Maintain/Remove Vegetation

Title: Maintain Vegetation

Description: Noxious weeds often out compete native vegetation and reduce the value/productivity of a given parcel of land. As such The State of Oregon has developed a 'A' noxious weed list which guides control efforts by CTUIR and others. This list may include additional species as the need arises. Additionally, historic land management practices have often reduced the conditions necessary for the vigorous and healthy growth of native species. Restoration efforts must therefore include a component addressing the presence and health of native vegetation to provide long term shade, structure, and stability to restoration sites. Weed treatments where CTUIR holds Conservation Agreements and are outside of the Cooperative Agreement with the City of Ukiah CTUIR will use a sole source contract with the contractor from 2012. This will be done to provide treatment continuity across years and more effectively treat noxious weeds. With respect to the Cooperative Agreement with Ukiah, the city secures a contract with a qualified weed contractor and administers that contract. CTUIR cannot guarantee that a sole source contract will be secured by the city although for the sake of treatment continuity this is likely to occur.

Deliverable Specification: Treat noxious weeds where CTUIR holds Riparian Conservation Agreements and as opportunities arise with cooperators within the NFJD basin. Treatments shall occur two to three times per growing season using spot treatments by hand wand. Expected chemicals include Clopyralid, Metsulfuron methyl, and 2,4-D. Spot treatments significantly reduce inadvertent exposure by sensitive habitats and species while reducing expenses associated with larger more general treatments. An estimate of the acres treated is therefore misleading. Clearances from BPA's Environmental Planning and Analysis Section for FY 2011 noxious weed treatments and all other NEPA and ESA requirements: Clearances will be secured based upon when CTUIR clearance requests (BPA Watershed NEPA Checklist and BPA Herbicide Applications forms) are submitted to BPA for approval.

Planned Metrics: * # of riparian miles treated: 6.40 * # of acres of upland non-wetland habitat treated: 200.00 * # of acres of upland wetland habitat treated: 0.00 * # of acres of riparian non-wetland habitat treated: 370.00 * # of acres of riparian wetland habitat treated: 0.00 * # of acres of freshwater non-wetland habitat treated: 0.00 * # of acres of freshwater wetland habitat treated: 0.00 * # of acres of estuarine wetland habitat treated: 0.00 * # of acres of estuarine non-wetland habitat treated: 0.00 * # of estuarine miles treated: 0.00 * # of freshwater miles treated: 0.00 * # of years treated: 10 * # of acres maintained: 570.00 * Biological plant removal: No * Herbicide plant removal: Yes * Mechanical plant removal: No * Conduct controlled burn: No

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Award subcontract	2/1/2013	4/12/2013	Completed	Award subcontract to the contractor from 2012 after developing subcontract specifications based upon Conservation Agreemnts. Treatment methods and allowable chemicals stipulated within NOAA Fisheries' 2008 Biological Opinion will be enforced.
C. Assess the condition of vegetation, weeds in vegetation, weeds in vegetation, weeds in project areas, and the contractor's performance	4/1/2013	11/29/2013	Completed	Determine if conditions have remained consistent (number of acres requiring treatment, etc.) with the previously submitted BPA CALENDAR YEAR 2012 PROPOSED HERBICIDE APPLICATION form. Noxious weed mortality will be verified via inspections two to three weeks after each herbicide application. PROPOSED HERBICIDE APPLICATION form. Noxious weed mortality will be verified via inspections two to three weeks after each herbicide application.
D. Eradicate noxious weeds with herbicides	4/15/2013	11/29/2013	Completed	Apply herbicides and biological controls where appopriate to weeds listed on Umatilla and Grant County's' Noxious A Weed lists, within existing project areas. This shall occur two to three times per growing season to be effective in eradicating various weed species (different growth cycles) and reducing seed drop.
E. Subcontractor shall submit 2013 weed treatment log	11/29/2013	1/31/2014	Completed	The subcontractor shall complete and submit a weed log (form shall be provided in CTUIR's subcontract) indicating herbicides and adjuvant utilized, number of upland and riparian acres treated, total volume of herbicide utilized, treatment method, etc. for each individual project area treated during the 2013 project period. Project personnel shall incorporate this information into BPA's CALENDAR YEAR 2013 ACTUAL HERBICIDE APPLICATIONS form to document weed treatments.
Deliverable: F. Maintain Vegetation		1/31/2014	Completed	See the Deliverable Specification above

With a full year to complete weed control efforts the new contractor has changed treatments according to their practices. This has resulted in more intensive treatments in several locations requiring reseeding with native grasses. A cooperative effort with the City of Ukiah continues to treat weeds in and around Ukiah including on an adjoining property where a conservation agreement is in place.

H: 157. Collect/Generate/Validate Field and Lab Data

Title: Collect Monitoring Data

Description: Collect pre-and post-project monitoring data where CTUIR maintains a Riparian Conservation Agreement or where cooperative projects require monitoring by CTUIR within the North Fork John Day River basin. Monitoring efforts will track and identify short and long-term effects and the success of habitat enhancements. Data will be summarized and included in the project's 2013 Annual Report.

Deliverable Specification: Document changes resulting from restoration activities. Channel morphology and processes, native plant communities, floodplain function and temperatures will be examined by tracking changes over time. Sites established during and prior to 2008 will be used for annual surveys conducted in June/July. Longitudinal and transverse transects, scour chains, and bank pins quantitatively track changes in channel morphology and processes with the added benefit of identifying habitat and changing in-stream habitat diversity. Cross sectional surveys, photopoints and densiometers will quantitatively and qualitatively track changing streamside and riparian vegetation communities while providing an estimate of its shading ability upon the stream. Cross sectional surveys and circle plots

qualitatively assess the floodplains vegetative diversity. Topographic surveys conducted every 3 to 5 years will track changes in channel and floodplain topography and establish the stable state of habitat improvements. Efforts to refine methodologies will continue. Pre-project data will be collected to establish a baseline may include topographic channel and riparian surveys, longitudinal and cross sectional surveys, scour chains, photopoints, and other potential methods mentioned above. Monitoring Plan - Assuming BPA has an interest in tracking or identifying trends related to habitat restoration efforts we expect to follow several protocols. Pre-project data, as mentioned above, will be used as a baseline to gauge project effectiveness. Post-project data will be collected yearly in an effort to build a data base from which to provide statistical analysis. After an adequate amount of data has been collected (period dependent upon analysis, (~ 5 years) monitoring frequency may be modified to reduce project costs and reflect the growth or natural changes of an established project site. Where projects involve steam channels or significant ground disturbances, topographic maps created every three years (frequency will remain constant) will track gross changes in channel and floodplain topography.

Planned Metrics: * Primary R, M, and E Focal Strategy : Tributary Habitat * Primary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Focal Strategy : Tributary Habitat

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/1/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Review, revise, and Publish protocol, study design, and methods in monitoringmethods .org	2/1/2013	1/15/2014	Completed	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., Published through monitoringmethods.org), preferably prior to data collection. Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.
C. Collect pre and post project data	2/1/2013	1/31/2014	Completed	Collect monitoring data using longitudinal and transverse surveys, scour chains, circle plots, photopoints, densitometers, topographical surveys, and stream temperatures. Survey sites established during and prior to 2008 and surveys conducted during June/July will standardize our efforts and provide quantitative and qualitative measures of project effectiveness. Efforts prior to project implementation will include the a portion or all of the afore mentioned surveys to establish a base line from which to base restoration efforts.
D. Conduct literature searches to obtain biological data	2/1/2013	1/31/2014	Completed	Review available literature to refine methods for collecting physical and biological inventories. If funds and staff are unavailable to conduct biological inventories the project shall continue to obtain relevant information from ODFW or others.
E. Data proofing and entry	11/1/2013	1/31/2014	Completed	Data collected will be entered and proofed during November - January. Analysis will identify relevant issues to be covered in the annual report.
Deliverable: F. Collect Data to Monitor Project Effectiveness and temperatures		1/31/2014	Completed	See the Deliverable Specification above

Upper Snipe Creek

Although there does appear to be some influence from upstream as indicated by the appearance of increased finer sediments the site has remained relatively stable. The stream channel has widened slightly (Figure 15) and this combined with the finer sediments suggest logging or some other ground disturbing action was undertaken upstream. Vegetative composition (Table 4) has remained stable with bushes and trees are increasing in size and shading the stream to a greater degree.

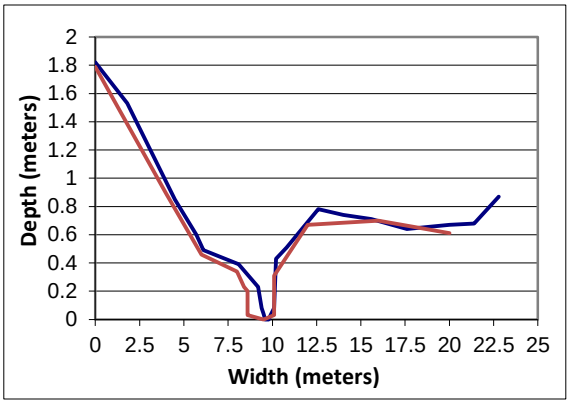


Figure 15. Data displayed from a cross-section from 2008 (blue) and 2013 (red).

Transect # and Bank	%	Cover Type
91 Left	40	Snowberry
91 Left	40	Grass
91 Left	20	Sedge
91 Right	55	Snowberry
91 Right	30	Grass
91 Right	10	Grand Fir
91 Right	5	Douglas Fir
29 Left	60	Grass
29 Left	30	Snowberry
29 Left	10	Strawberry
29 Right	70	Grass
29 Right	20	Snowberry
29 Right	10	Alder

Table 4. Vegetation along the cross-section shown above for 2013.

Lower Snipe Creek

The Lower Snipe Creek site has generally maintained its form and structure. While streambanks continue to collapse during high flows as banks are undercut and the stream channel widens Figure 16 suggests additional incision is minimal and isolated. Channel depth at the sites upper end has increased by 14 centimeters since 2008. This can be expected as the head cut which began off the property migrates upstream. Unfortunately with the property being enrolled in the CREP program there is little that can be done at this time. Vegetation associated with these cross-sections and photopoints (Table 5 & Figure 17) suggest that has not changed significantly and native vegetation plantings have not been successful due to channel incision, lowering of the water table, and significantly reduced floodplain connectivity. Ponderosa pine has colonized the dryer floodplain on its own and willows are reproducing to a limited extent within the stream channel under their own volition.

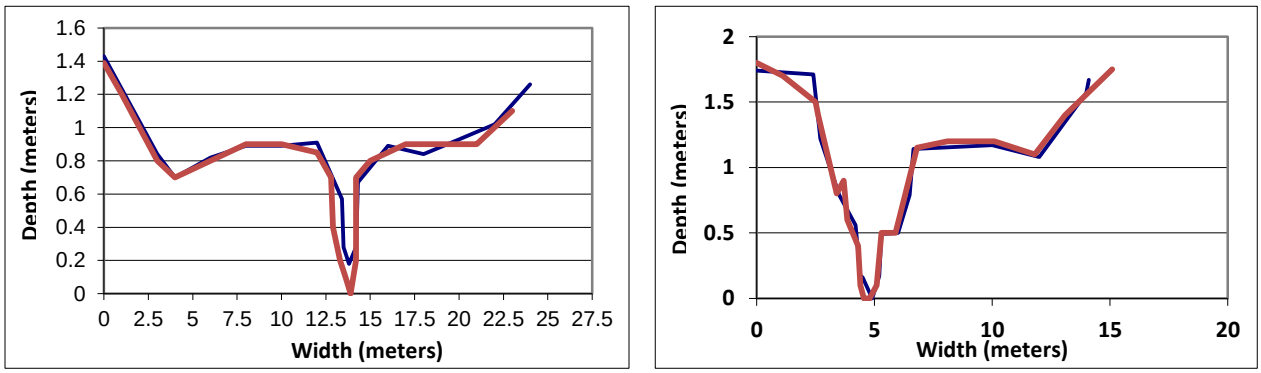


Figure 16. Data displayed from a cross-section at the upper end of the reach (left) and lower end of the reach (right) from 2008 (blue) and 2013 (red).

Transect # and Bank	%	Vegetation Type
#32 Left	100	Grass
#32 Right	100	Grass
#32 Left	78	Grass/Sedge
#32 Left	14	Grass/Sedge
#32 Left	5	Water
#32 Left	3	Dirt
#32 Right	90	Grass
#32 Right	5	Grass/Sedge
#32 Right	5	Water

Transect # and Bank	Distance Start	Distance Stop
32 Left	100	Grass
32 Right	100	Grass
#32 Left	78	Grass
#32 Left	18	Grass/Dirt
#32 Left	4	Water
#32 Right	81	Grass
#32 Right	13	Grass/Sedge
#32 Right	4	Water
#32 Right	2	Willow

Table 5. The results of vegetation surveys at an upper cross-section (left) and lower cross-section (right).

Figure 17. Photos looking up-stream from the lower end of the lower treated reach in 2004 (left) and 2013 (right).

Owens Creek

The Owens Creek site which has thus far only been outfitted with a riparian fence has consistently maintained its condition. Natural recruitment of willows has been slow and a cross-section (Figures 18 & 19) has not shown any change. While the potential for altering channel form and floodplain connectivity outside the inset floodplain is present the sites proximity to a downstream bridge and low gradient reduce its potential. The downstream bridge has low stringers which are nearly underwater during high flows and any treatments would have a direct influence upon the upstream landowner due to stream and floodplain gradient.

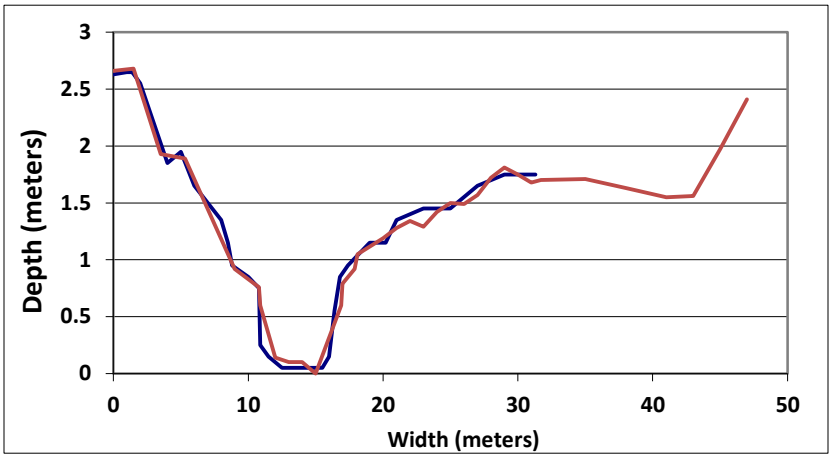
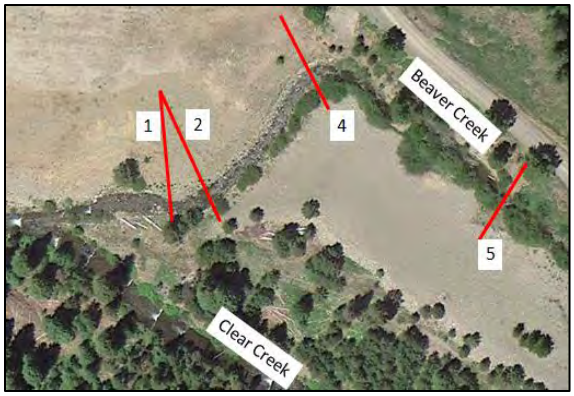


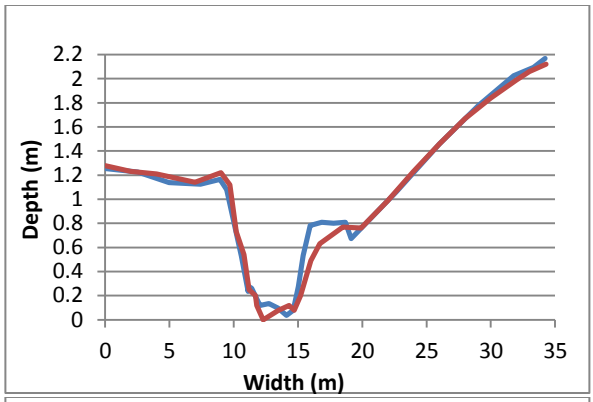
Figure 18. Cross-section data for the Owens Creek site from 2008 (blue) and 2013 (red).

Figure 19. Photopoints from 2005 (left) and 2013 (right) for the Owens Creek site.

Beaver Creek

Beaver Creek has maintained its form and function since 2011 where an adjustment was required to protect against localized scour exposing the bentonite blanket used to seal the channels substrate. Flows have not been lost from the channel since implementation and as such, passage for spring adult spring Chinook salmon and others during the summer has been maintained. Adjustments to the channel have occurred (Figure 20) through localized scour with a slight deepening as cross-section 4 which lies at the upper end of the treated channel. Changes have occurred at cross-section 5 as the streambank has eroded in response to debris catching on the channels margins. This may have some influence upon the treated reach in the form of additional bedload although any influence appears minimal. Native hardwood vegetation plantings along the stream edge have been successful and much more successful than pine planting in the dry remnants of tailing piles off the stream channel.





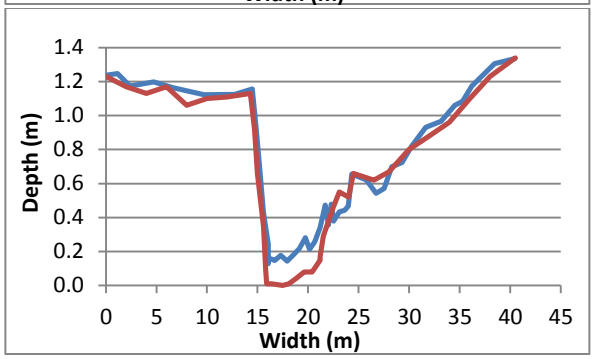


Figure 20. Aerial photograph showing cross-section placement across the site. Cross-section 2 (upper right) and cross-section 4 (lower right) display post implementation data collected in 2010 (blue) and 2013 (red).

I: 157. Collect/Generate/Validate Field and Lab Data

Title: Acquire Stream Temperature Data

Description: Due to the numerous land management and restoration partners throughout the North Fork John Day Basin multiple entities collect stream temperature data for upload into CTUIR's central Database. This information is available to anyone interested and helps provide baseline and trend monitoring data.

Deliverable Specification: Project staff will supply stream temperature data to CTYIR's s database. This data will be summarized in the project's 2012 - 2013 Annual Report.

Planned Metrics: * Primary R, M, and E Focal Strategy : Tributary Habitat * Primary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Type : Status and Trend Monitoring * Secondary R, M, and E Focal Strategy : Tributary Habitat

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	12/31/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Review, revise, and Publish protocol, study design, and methods in monitoringmethods.org	2/1/2013	4/30/2013	Completed	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., Published through monitoringmethods.org), preferably prior to data collection. Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.
C. Deploy data loggers	5/1/2013	5/15/2013	Completed	Deploy data loggers.

D. Recover data loggers	10/1/2013	10/31/2013	Completed	Recover data loggers.
E. Submit data to the CTUIR database	11/1/2013	1/31/2014	Completed	Submit data to the CTUIR database.
Deliverable: F. Acquire and Submit Stream Temperature Data to NOAA		1/31/2014	Completed	See the Deliverable Specification above

Water temperatures were recorded at dedicated locations at one hour intervals beginning at 0000 hours from 1 June through the end of September. Loggers were placed at sites upper and lower extents. Unfortunately, the Lower Snipe Creek logger was lost along with the data. The balance of collected water temperatures (Table 6) shows mixed results; many of which are not surprising give the site conditions and length of treated stream channel and riparian/floodplain habitats. 2013 data from the Upper Snipe Creek were very similar to that of the 2012 data.

During 2013 data from the Camas Creek site suggests streamflows warm as thy move through the site with temperatures above 20^{o} Celsius increasing considerably, exceeding the lethal 25^{o} Celsius mark more often at the lower data logger location and a decrease in the preferred temperature range. This is due to at least one of two reasons and likely a combination of the two. Above the site Camas Creek flows which are cooled as water enters the channel substrate approximately 1.2 Kilometers above the site and emerges several hundred meters above the site. Secondly vegetative planting have suffered greatly from wildlife predation and as the stream channel shifts annually removing planting altogether. Fortunately this reach contains groundwater inputs and deeper pools which can be used as refuge during these warmer periods.

The Deer Creek sites shows warming similar to that of Camas Creek with elevated temperatures exceeding 20 and 25^{o} Celsius at the sites lower end and a decrease in the number of reading within the growth range for salmonids. As previously noted these elevated temperatures are at least partially due to the sites lower elevation and dryer climate. Unfortunately, pre-implementation is not available for this site and as such a comparison to the disturbed conditions cannot be made. Similarly air temperatures have not been recorded for comparison although they will be collected beginning in 2014.

The Keslay Creek site shows a surprising number of days above 20^{o} Celsius considering the sites elevation at its upper end although this may be partially due compromised vegetation due to grazing cattle above the enclosure and/or wildlife. Differences between the upper and lower data do suggest removing cattle and allowing vegetative recovery has had an influence upon water temperatures. However, numbers for the categories shown below across years indicate the site has cooled stream flows all along. The influence or health of hyporheic flows are unknown at this time.

Site	> 20^{o}C	> 25^{o}C	% Mean Daily Temp >=17.8^{o}C	10^{o}C - 15.6^{o}C	Total Data Points
U Snipe	0	0	0.0	1956	2832
U Camas	180	2	5.2	1535	2760
L Camas	638	19	35.7	1048	2760
U Deer	368	8	21.8	1113	2856
L Deer	644	30	47.1	845	2856
U Kelsay	211	0	2.5	1397	2856
L Kelsay	27	0	2.5	1801	2856

Table 6. The results of water temperature data collected in 2013

J: 184. Install Fish Passage Structure

Title: Corrigal Springs Culvert Replacement

Description: During 2012 the WWNF, NFJDWC, and CTUIR cooperated to complete necessary documentation to replace a culvert on Bull Run Creek near Granite, OR. This is the first phase of a multi-step coordinated effort to address limiting factors in the Bull Run watershed. NEPA and design work has been completed by the WWNF who will secure and administer the implementation contract for this project. CTUIR will provide technical and financial support for this effort while contracting, contract administration and implementation oversight shall be completed by the WWNF and the NFJDWC shall facilitate funding transfer between cooperators. Estimated implementation costs for this culvert are expected to be $143,839 through an implementation estimate provided by the USFS. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands; however, CTUIR's understanding is that this is a region wide agreement. Thus far the UNF has contributed NEPA permits, survey and design work, and will secure, and manage an implementation contract. The NFJDWC is seeking funding for implementation.

Deliverable Specification: Provide passage to approximately 3.6 miles of high quality spawning and rearing habitat for adult and juvenile Threatened Mid-Columbia Steelhead trout and opportunistic Bull trout. This replacement also stabilizes the road prism as the existing culvert is undersized and prone to plugging resulting in roadbed erosion.

Planned Metrics: * # of miles of habitat accessed to the next upstream barrier(s) or likely limit of habitable range: 6.00 * # of bridges installed in the freshwater non-tidal zone: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	7/15/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement	2/1/2013	4/1/2013	Completed	Secure a Cooperative Agreement with cooperators to facilitate funding transfer to the UNF.
C. Ensure implementation is complete	7/15/2013	8/15/2013	Completed	Works with the WWNF and NFJDWC to insure implementation occurs according to design.
Deliverable: D. Corrigal Springs Culvert Replacement		10/1/2013	Completed	See the Deliverable Specification above

The Corrigal Springs Culvert replacement undertaken as a joint effort between the WNF, NFJDWC, and The Project was implemented successfully within the 15 July to 15 August in-stream work window and restored passage to approximately 3.6 miles of existing habitat. An unexpected bedrock ledge did require a bit of extra work to properly place the structures footer although the structure was successfully placed. The UNF secured and administered a contract for this effort with final costs of $106, 485 to The Project matching those originally estimated. A 4’ round culvert which plugged annually during spring run-off was replaced by a pre-cast concrete bridge (Figure 21) which will be large enough to prevent plugging and subsequent roadbed erosion. Spawner surveys will be conducted by The Project during early 2014 to identify successful passage by adult summer steelhead trout.

Passage through this structure during 2014 be restricted until a culvert approximately one mile downstream on Bull Run Creek is replaced in 2014. The spatial distribution of these culverts would

suggest that the lower culvert should be replaced first; however, the lower culvert is associated with a second culvert on Deep Creek and related road realignment. Given funding available at the time, a decision was made to complete the Corrigal Springs culvert first. The WNF has secured additional funds which will be supplemented by those of The Project to complete the lower culverts in 2014.

Figure 21. Pre-cast concrete bridge which replaced a round 4' in 2013.

K: 29. Increase In-stream Habitat Complexity and Stabilization

Title: Fox Creek Channel Improvements

Description: In response to landowner concerns about the state and function of Fox Creek flowing through their properties, the North Fork John Day Watershed Council (NFJDWC) conducted an assessment of Fox Creek in 2009. The assessment resulted in a list of potential actions addressing hydrologic, geomorphic, and land management concerns. CTUIR contributed $1,313 using funds from the Pacific Coast Salmon Recovery Fund toward this effort and participated in the 'agency' prioritization meeting. Several priority actions identified by both landowners and agency staff have resulted in a channel restoration on one section of Fox Creek in 2011 and 2012 for which CTUIR has contributed $95,697 to the effort. This phase will address channel stabilization and irrigation diversion adequacy. The NFJDWC will secure and administer implementation contracts and is working to secure additional implementation funds for 2013. Permits shall be secured by the NFJDWC with assistance from CTUIR as the need is outlined. CTUIR's funds will be used to support implementation construction, implementation oversight, and contract & fiscal management.

Deliverable Specification: Stabilize channel morphology and processes, decrease sediment loading, and increase available spawning and rearing habitat and the quality of that habitat for listed summer steelhead and resident redband trout by permanently abandoning the USACE channel using the plug and pond method.

Planned Metrics: * # of miles of stream with improved complexity: 0.60 * Start latitude of treated stream reach: 44.630868 * End latitude of treated stream reach: 44.636350 * Start longitude of treated

stream reach: -119.132212 * End longitude of treated stream reach: -119.141961 * # of logjam structures installed for both stabilization and complexity: 17 * # of rock weir structures installed for both stabilization and complexity: 347 * # of pools created for only complexity: 17

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	10/31/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure Cooperative Agreement	2/1/2013	4/1/2013	Completed	Secure a Cooperative Agreement to outline the roles and contributions of the NFJDWC and CTUIR.
C. Coordinate with the NFJDWC to insure success of implementation and funding transfer	7/15/2013	8/15/2013	Completed	Coordinate with the NFJDWC to provide technical support during implementation, approve invoices, and insure funding is transfer in a timely manner.
Deliverable: D. Fox Creek Channel Realignment		10/31/2013	Completed	See the Deliverable Specification above

Grant applications by the NFJDWC for funding were not awarded leaving only those CTUIR cost share. Given this, a reduced effort was undertaken using structures from the original design to improve flow through an irrigation diversion with the intent to build on that effort in 2014. Three rock structures (Figure 22) were placed at a cost of $21,897 and an additional $8,200 for engineering design work. After completion NOAA raised concerns regarding the implemented structures and discussions regarding those concerns and potential treatments are ongoing.

Figure 22. Structure (left) installed in Fox Creek and a over view (right) of the implementation area.

L: 40. Install Fence

Title: Mud Creek Fence

Description: Prior to this effort the landowner and ODFW had cooperated to construct a riparian fence along Hideway Creek and develop alternative stock watering sites. During 2012 ODFW and the landowner contacted CTUIR concerning a fence along Mud Creek, a tributary of Hideway and in turn Camas Creek. Additionally the landowner is working with CTUIR to reestablish Camas in several upland areas. The landowner is now interested in exclusion fencing along Mud Creek to prevent cattle from loitering along Mud Creek and disturbing the riparian area. While this stream does not produce trout or salmon it does provide viable habitat for juvenile fish in its lower reaches and conducts water from low gradient meadows above. The landowner has secured CSP funds and ODFW has materials available for use in fence construction during 2012 which will be supplemented with funding and permitting efforts by CTUIR. A Conservation Agreement has been secured and fence construction did not begin in 2012 as permits had not been secured prior to fall rains.

Deliverable Specification: Install up to 7,900 feet of six strand New Zealand wire fence as agreed upon by all cooperators to restrict cattle access by grazing cattle. ODFW shall provide materials, the landowner shall provide funding for labor, and CTUIR shall provide permitting and funding for labor.

Planned Metrics: * Start latitude of treated stream reach: 45.144590 * End latitude of treated stream reach: 45.157760 * Start longitude of treated stream reach: -118.777820 * End longitude of treated stream reach: -118.783990 * # of miles of fence installed in a riparian area: 1.50 * # of miles of left streambank fenced in a freshwater area: 0.50 * # of miles of right streambank fenced in a freshwater area: 1.00 * # of water gaps: 2 * Average buffer width: 200.00 * # of acres of upland wetland habitat protected by fencing: 0.00 * # of acres of riparian wetland habitat protected by fencing: 1.25

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	4/30/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a construction contract	3/1/2013	6/3/2013	Completed	Accept bids for fence construction from qualified contractors.
C. Ensure the fence is constructed and follows NRCS specifications	4/1/2013	11/29/2013	Completed	Confirm and evaluate fence construction follows NRCS specifications.
Deliverable: D. Mud Creek Fence		1/31/2014	Completed	See the Deliverable Specification above

The Mud Creek fence was constructed successfully as planned. The cost of labor for two miles of six strand high tensile fence was $18,350 with materials provided by ODFW's Grande Rhonde Habitat Project. Construction took roughly one month and was approved by representatives with CTUIR and ODFW. Additional work to improve upland stock watering opportunities will be completed in 2014.

M: 98. Other

Title: Red Boy Mine Pipeline Replacement

Description: The Red Boy Mine opened in 1886 producing gold, silver, and copper until 1916 at which time it was sold in a sheriff's sale. Sampling conducted during 1996 as part of an EPA-funded study of

mines in the Granite Creek Mining District found contamination in the soil, surface water, and sediments from the onsite tailings and effluent flowing from the mine shaft (PH ~3.9). Tailings at Red Boy are over 25 feet thick in some areas, and have the potential for collapsing into Congo Gulch and nearby Clear Creek. Since the current owners of the Red Boy Mine have been unable to pay for mine cleanup Oregon DEQ designated the site as an Orphan project in May 2000. That same year improvements were made to a water-collection system to prevent effluent movement (~60 gallons/minute) through the tailings carrying arsenic, iron and other metals into Congo Gulch and Clear Creek. At this time an effluent collection system drains the mine through a ground level grate just inside shaft and transports it through approximately 500 feet of 6 -inch PVC pipe and into the bottom of an infiltration basin. Unfortunately, the piping system plugs periodically and overflows into Congo Gulch and in effect Clear Creek which suggests that the existing system may be undersized. During 2010 the UNF and NFJDWC met to discuss the Red Boy Mines and determined that the existing treatment protocols are inadequate. This discussion also identified an outline for addressing the issues including an "emergency" treatment followed by a second phase to evaluate the long term separation from the Bluebird Mine Treatment System (a nearby mine) and improve effluent treatment and conveyance. The NFJDWC has secured funds to implement the pipeline replacement and address the larger issues; however, grant agreements were not secured in time to complete the pipeline replacement in 2011. During 2012 sampling and analysis work to address the larger issues occurred and given the completion of the assessment and and delays due to weather the pipeline replacement will now occur in 2013. Estimated cost at this time for the pipeline replacement is $57,000.

Deliverable Specification: Replace the existing PVC pipeline with an 8-inch high density polyethylene (HDPE) pipeline including air vents and clean outs discharging above the water level of the existing infiltration pond. The new pipeline would be designed such that it would be compatible with the new collection system in the portal once the long term options evaluation was complete. The NFJDWC shall secure additional funding to complement CTUIR's funding during late 2010 and contract with a qualified contractor to complete the work.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	6/1/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure a Cooperative Agreement with the NFJDWC	2/1/2013	4/1/2013	Completed	Secure a Cooperative Agreement with the NFJDWC to facilitate funding transfer.
C. Coordinate with the NFJDWC during implementation	5/1/2013	12/31/2013	Completed	Work with the NFJDWC to insure the contractor follows the approved design.
Deliverable: D. Red Boy Mine Pipeline Replacement		12/31/2013	Completed	See the Deliverable Specification above

Following the 2012 assessment a design for the pipeline was finalized and implemented. The landowner worked as the contractor under the direction of the NFJDWC, ODEQ and the engineering contractor. The old 6' PVC pipe was replaced by a 12" HPDE pipe with five manholes and two additional cleanouts expanding upon the two cleanouts of the old pipeline (Figure 24). The new line is completely sealed as opposed to the old line suspected of having leaks. Costs to the CTUIR were $6,301 of the total $67,219 cost.

Figure 24. Photographs showing the intake adjacent to the mine audit (left) and pipe and manhole being bedded (right).

N: 186. Operate and Maintain Habitat/Passage/Structure

Title: Taylor Creek Fence Maintenance

Description: During the early 1990's the UNF constructed riparian enclosures using BPA funds along much of 5 Mile Creek a tributary of Camas Creek and in turn the NFJD; these fences are now in need of heavy maintenance and have successfully improved water quality and in-stream/riparian conditions used by Red Band trout. At the time of construction Steelhead trout accessed the area using a fish ladder constructed by ODFW which is no longer in service. Conversations between the UNF and CTUIR determined that with contribution of materials and labor by the UNF and labor by CTUIR personnel the fences lifespan could be extended at a minimal cost. During 2012 approximately five miles of fence received maintenance consisting of replacing jacks, restringing and repairing wire, and rebuilding water crossings. While maintaining the fence line additional work was identified including the reconstruction of approximately 0.25 miles of fence and additional heavy maintenance on Taylor Creek a tributary of Five Mile Creek which will be completed during 2013. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. For this effort the UNF will provide materials and additional labor when needed.

Deliverable Specification: Complete heavy maintenance on up to one mile of riparian fence as time and resources allow.

Planned Metrics: * # of miles of streambank protected by fence maintenance: 2.50 * # of acres protected by fence maintenance: 90.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Confirm which fences are to be maintained and schedule	3/29/2013	4/1/2013	Completed	Work with UNF Range Conservationists to confirm which fences are to be maintained and schedule the assistance of UNF personnel.

maintenance				
C. Complete maintenance	4/1/2013	12/16/2013	Completed	Complete fence maintenance.
Deliverable: D. Taylor Creek Fence Maintenance		12/31/2013	Completed	See the Deliverable Specification above

Heavy maintenance took three days of labor and minimal materials from the UNF. A total of 0.25 miles of fence were worked on. Efforts included wire tightening, clearing trees in several locations, and rebuilding one structure.

O: 40. Install Fence

Title: Indian Creek Fence

Description: This WE builds upon previous cooperative efforts between the NFJDWC, UNF, and CTUIR to improve grazing management, critical habit for threatened Mid-Columbia Steelhead trout, and water quality on federal grazing allotments. Cattle intrusion into the stream has caused excessive streambank instability and sediment entrainment, effectively reducing available instream habitat and water quality. In this instance approximately 6,900 feet of four strand barbed wire fence will be constructed on Little Indian Creek a tributary of the Middle Fork of the North Fork John Day River. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. For this effort the UNF will provide materials, the NFJDWC will secure and administer an implementation contract, and the CTUIR will provide funds for implementation labor.

Deliverable Specification: Construct approximately 6,900 feet of four strand barbed wire fence on Little Indian Creek.

Planned Metrics: * Start latitude of treated stream reach: 44.872870 * End latitude of treated stream reach: 44.871970 * Start longitude of treated stream reach: -118.892190 * End longitude of treated stream reach: -118.903600 * # of miles of fence installed in a riparian area: 1.30 * # of miles of left streambank fenced in a freshwater area: 0.65 * # of miles of right streambank fenced in a freshwater area: 0.65 * # of other exclusion structures: 0 * Average buffer width: 50.00 * # of acres of riparian non-wetland habitat protected by fencing: 8.00

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	6/30/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure agreement with cooperators	2/1/2013	4/1/2013	Completed	Secure an agreement with cooperators to identify the roles of cooperators and facilitate funding transfer.
C. Insure implementation has occurred according to design specifications	4/15/2013	12/31/2013	Completed	Coordinate with the NFJDWC to select an qualified contractor and ensure construction follows USFS design specifications.
Deliverable: D. Indian Creek Fence		12/31/2013	Completed	See the Deliverable Specification above

A joint effort between the UNF, NFJDWC, and the CTUIR constructed 1.5 miles of four strand barbed wire fence. The fence closed of a remaining portion of Little Indian Creek which was not excluded during a previous fencing effort. The CTUIR contributed $9,360 for labor to the UNF's $5,000 in materials to protect 0.5 miles of stream channel. Maintenance will be completed by the grazing permittee with oversight by the UNF Range Conservationist.

P: 40. Install Fence

Title: Smith Creek Fence

Description: This WE builds upon previous cooperative efforts between the NFJDWC, UNF, and CTUIR to improve grazing management, critical habit for threatened Mid-Columbia Steelhead trout, and water quality on federal grazing allotments. Concentrated cattle intrusion into the stream caused by water gaps constructed in a 1990's exclusion fence has significantly contributed to excessive streambank instability and sediment entrainment, effectively reducing available in-stream habitat and water quality. This effort will exclude water gaps within the existing fence line and in turn reduce sediment entrainment and streambank cutting. In this instance approximately 4,000 feet of four strand barbed wire fence will be constructed on Little Indian Creek a tributary of the Middle Fork of the North Fork John Day River. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. For this effort the UNF will provide materials, the NFJDWC will secure and administer an implementation contract, and the CTUIR will provide funds for implementation labor.

Deliverable Specification: Construct approximately 4,000 feet of four strand barbed wire fence on Smith Creek.

Planned Metrics: * Start latitude of treated stream reach: 45.983276 * End latitude of treated stream reach: 45.932651 * Start longitude of treated stream reach: -118.905119 * End longitude of treated stream reach: -118.829426 * # of miles of fence installed in a riparian area: 0.75 * # of miles of left streambank fenced in a freshwater area: 0.35 * # of miles of right streambank fenced in a freshwater area: 0.35 * # of other exclusion structures: 3 * Average buffer width: 100.00 * # of acres of riparian wetland habitat protected by fencing: 0.40

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	6/30/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure an agreement with cooperators	2/1/2013	4/1/2013	Completed	Secure an agreement with cooperators to identify the roles of cooperators and facilitate funding transfer.
C. Ensure implementation has occurred according to design specifications	4/15/2013	12/31/2013	Completed	Coordinate with the NFJDWC to select an qualified contractor and ensure construction follows USFS design specifications.
Deliverable: D. Smith Creek Fence		12/31/2013	Completed	See the Deliverable Specification above

A joint effort between the UNF, NFJDWC, and the CTUIR constructed 0.75 miles of four strand barbed (Figure 25) wire fence to close off water gaps in an existing fence along Smith Creek. The water gaps were becoming an issue with respect to water quality. The CTUIR contributed $5,538 for labor to the UNF's $5,000 in materials to protect 0.5 miles of stream channel. Maintenance will be completed by the grazing permittee with oversight by the UNF Range Conservationist.

Figure 25. Fence constructed to protect Smith Creek

Q: 175. Produce Design and/or Specifications

Title: Granite Creek Implementation Design

Description: During 2012 ODFW asked CTUIR to speak with a landowner about efforts to stabilize the existing channel along 0.35 miles of Granite Creek. ODFW had previously knocked down tailing piles in cooperation with the landowner. Discussions thus far have led to the completion of a topographic survey and additional conversations with the landowner. The tentative approach for this effort includes in-stream work during 2013 to stabilize select locations thereby reducing sediment entrainment and design efforts for additional implement efforts in 2014.

Deliverable Specification: Complete a design capable of stabilizing streambanks and improving habitat for aquatic species without significantly reducing landowner access to the property.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	2/1/2013	Completed	Assure environmental compliance is completed before beginning any on the ground work.
B. Assign BPA Energy Efficiency Engineer as Advisor	2/1/2013	3/31/2013	Completed	The BPA COTR will contact Energy Efficiency to request the assignment of a BPA engineer to perform an advisory role on the design team.
C. Complete design	2/1/2013	11/30/2013	Completed	Consult with the landowner, BPA engineers and in-house staff to create a design suitable to all addressing channel stability, in-stream habitat, and landowner use of the property. The design shall seek to minimize the need for individual permits from agencies in order to reduce the opportunity for project delays.
D. Coordinate with utility company	2/1/2013	11/30/2013	Completed	Consult with the local utility to coordinate efforts as a utility line passes through the property and may be affected by implementation efforts.
E. Determine cost estimate and permits	2/1/2013	11/30/2013	Completed	Secure a design estimate and begin securing permits so the 2014 implementation efforts can occur as planned.
Deliverable: F. Granite Creek Implementation Design		1/31/2014	Completed	See the Deliverable Specification above

After completing a topographic survey from which design efforts could be based and coordinating with a BPA engineer a final design (Figure 26) was accepted by the landowner. The design treated unstable streambanks using large wood and native plantings. Additional efforts for 2014 will be designed by The Projects Staff and/or consultants depending upon available time and resources.

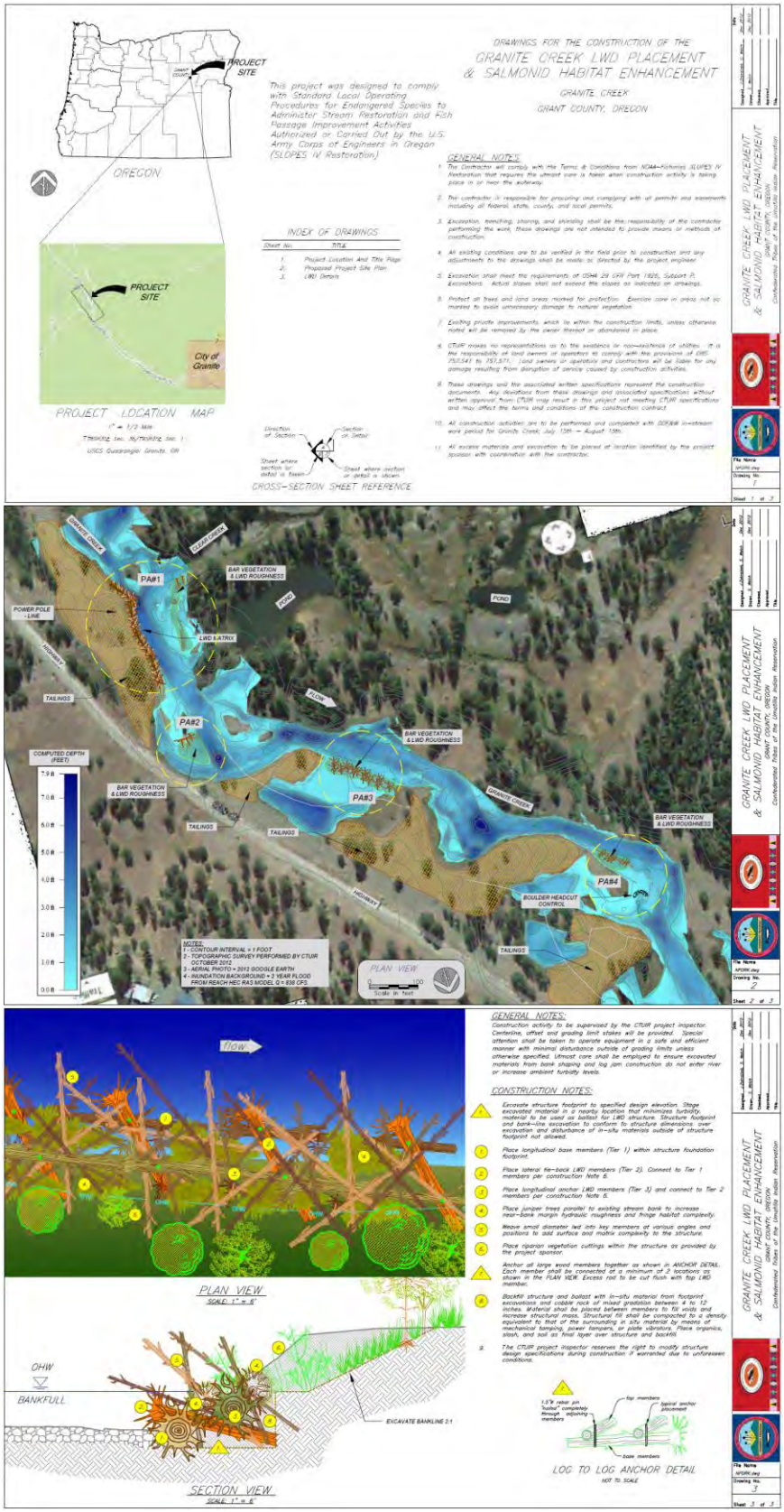


Figure 26. Plans developed for the 2013 Granite Creek Implementation effort.

R: 34. Develop Alternative Water Source

Title: CANCELED - Upper Camas Stock Water Development Improvement

Description: CANCELED - In 2008 CTUIR and the landowner of the Upper Camas Creek property entered into a 15 tear Conservation Agreement that included the development of an upland well and associated cross fencing, riparian exclusion fencing and in-stream improvements. Upland efforts completed in 2009 have allowed for rotational pasture management and supplemented previously existing ponds which would typically dry out by early July leaving unused forage on the ground during the summer months. The solar powered well installed to extend summer grazing has operated as designed but is unable to provide winter watering opportunities and as such, the landowner is requesting that power be brought in by wire to allow the installation of heated troughs. This work element supports that effort once CTUIR and the landowner agree upon an appropriate cost-share and the roles of each party with the landowner paying power bills. At this point discussions have not produced an agreement for the new management strategy. Conversations between the landowner and CTUIR have occurred to address the adequacy of the solar pump as it is not able to keep water ice free in the winter.

Deliverable Specification: CANCELED - Deliver power to the water development by wire stretched from the landowner's residence 1 mile distant. Columbia Power will complete the installation with CTUIR modifying the existing troughs (two new insulated troughs) and pump apparatus as appropriate.

Planned Metrics: # of alternate water sources installed in the upland: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013		Canceled	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Identify appropriate contributions of the landowner and CTUIR	2/1/2013		Canceled	Discussions between CTUIR and the landowner will need to identify appropriate cost-share, the role of each party during implementation and maintenance during the life of the Conservation Agreement. At this point these matters have not been settled and discussions continue.
C. Secure implementation contract	2/1/2013		Canceled	Upon agreement by CTUIR and the landowner Columbia Power will be contracted to install wire, poles, and meter to the well house.
D. Install troughs and associated equipment	4/1/2013		Canceled	This change in management requires switching the existing troughs with new insulated plastic troughs placed on a concrete pad. Associated efforts may require replacing the existing pump and installing a pressure tank.
Deliverable: E. CANCELED - Upper Camas Stock Water Development Improvement			Canceled	See the Deliverable Specification above

A disagreement regarding the terms of the upland stock water development and conservation agreement resulted in conversations between the landowner and The Project. After consulting with BPA a decision was made by to rescind the conservation agreement leaving all developments in place without cost to the landowner while reserving the right to remove trees from the property which had previously been paid for. The conversations prevented implementation efforts in 2012 and recession of the conservation agreement prevented any improvements to the upland stock water development or in-stream, riparian, or floodplain habitat in 2013. Materials were provided to the landowner so that water gaps could be placed and removed after spring runoff and before freeze-up respectively.

S: 29. Increase In-stream Habitat Complexity and Stabilization

Title: Granite Creek In-stream Implementation

Description: During 2012 ODFW asked CTUIR to speak with a landowner about efforts to stabilize the existing channel along 0.35 miles of Granite Creek. ODFW had previously knocked down tailing piles in cooperation with the landowner. Discussions thus far have led to the completion of a topographic survey and additional conversations with the landowner. The tentative approach for this effort includes in-stream work during 2013 to stabilize select locations thereby reducing sediment entrainment and design efforts for additional implement efforts in 2014. Design for 2013 implementation efforts will be completed in early 2013 with permitting efforts to follow immediately.

Deliverable Specification: Implement specific efforts to address streambank erosion which will complement the larger 2014 effort.

Planned Metrics: * # of miles of stream with improved complexity: 0.35 * Start latitude of treated stream reach: 44.821060 * End latitude of treated stream reach: 44.824210 * Start longitude of treated stream reach: -118.448710 * End longitude of treated stream reach: -118.448787 * # of miles of stream treated with spawning gravel: 0.00 * # of logjam structures installed for both stabilization and complexity: 3 * # of pools created for only complexity: 0

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	7/15/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Select Contractor	5/1/2013	6/10/2013	Completed	Select a qualified contractor through a competitive bid process. The estimate will be submitted to BPA so implementation funds can be secured.
C. Obtain Materials	6/1/2013	8/3/2013	Completed	Secure materials for implementation. Materials will be supplied to some extent by the landowner and other sources depending upon the final design specifications.
D. Project Implementation	7/15/2013	8/15/2013	Completed	Implement the final design during the 15 July to 15 August in-stream work window unless an extension is required and can be secured.
Deliverable: E. Granite Creek In-stream Implementation		9/2/2013	Completed	See the Deliverable Specification above

Following the completion of the Granite Creek design a qualified contractor was selected for implementation. Trees hauled from the Upper Camas Creek site finalized our obligations regarding the recession of the conservation agreement for that property. Large wood and the rock from a nearby UNF quarry were transported to the site prior to implementation beginning. Four large wood structures and one rock structure (Figure 27) were successfully developed as designed in eight days immediately prior to the end of the in-stream work window. Costs ($129,050) were slightly less than those quoted by the contractor. Implementation was reviewed by the UNF who provided permitting support and the landowner.

Figure 27. Structures placed along Granite Creek to reduce streambank erosion and increase channel complexity from upstream (top left to downstream (bottom right).

T: 29. Increase In-stream Habitat Complexity and Stabilization

Title: CANCELED - Upper Camas Creek In-stream Implementation

Description: CANCELED - During 2008 CTUIR entered into a Cooperative Agreement with Mr. Forrest Rhinehart to complete grazing improvements on a 250 acre upland pasture and in-stream and riparian habitat improvements within a 40 acre pasture along Camas Creek. This action consists of two phases; Phase I, develop an upland well and cross fencing in an existing pasture while Phase II, construct riparian fencing to exclude cattle from Camas Creek and in-stream restoration efforts to improve in-stream complexity and water quality. The upland well will improve upland grazing management by enabling grazing beyond early July when stock watering ponds dry out and before fall rains fill the ponds again and improve water quality by reducing sediments caught up as cattle spend less time in the ponds. Current grazing management utilizes approximately fifty percent of available upland forage due to the loss of upland stock watering opportunities. An existing upland pasture, in which the well is located, will be subdivided to support rotational cross fencing and fully utilize available forage. In-stream restoration and stream bank modifications will improve in-stream habitat complexity, channel morphology, water quality and riparian health for Threatened Mid-Columbia Steelhead trout and Spring Chinook salmon. In 2008 an upland well was drilled to 310 feet that produced adequate stock watering opportunities and an OWEB grant application was submitted and subsequently awarded to support the installation of a solar pump and upland cross fencing. The riparian fence along Camas Creek was completed in late 2009 and

an in-stream design to incomplete in-stream restoration efforts secured in 2010. However, cultural resources concerns led to a redesign and acceptance of a final design with final cultural resource clearance in late 2011. A Biological Opinion from NOAA was received in early 2012 and required additional consultation. During 2012 the presence of swallows prevented rock removal from a quarry wall which delayed to project long enough the selected contractor did not feel there was enough time left to implement the project given the potential for confounding issues such as cultural resources. As such, the project has been delayed until 2013 assuming WE R has been completed and funding is available. The last delay will result in a partial redesign as 300 feet of streambank cutting over the past two years has moved the channel approximately 15 feet from its predesign position requiring a different approach then previously proposed. Additional consultations will therefore with NOAA, NMFS, ODSL, and Corps will occur as a result of these changes.

Deliverable Specification: CANCELED - Implement in-stream structures as identified and designed by an in-stream design along a 0.8 mile reach of Upper Camas Creek. Oversight by the design contractor shall insure design specifications are met.

Planned Metrics: * # of miles of stream with improved complexity: 0.80 * Start latitude of treated stream reach: 45.158790 * End latitude of treated stream reach: 45.164480 * Start longitude of treated stream reach: -118.805530 * End longitude of treated stream reach: -118.792900 * # of logjam structures installed for both stabilization and complexity: 20 * # of unanchored rocks/boulder structures installed for both stabilization and complexity: 75 * # of rock weir structures installed for both stabilization and complexity: 18 * # of pools created for only complexity: 18

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure necessary permits	2/1/2013	8/15/2013	Canceled	Using design specifications provided by the in-stream design secure permits necessary for project implementation. Insure appropriate monitoring personnel are present for implementation efforts.
C. Secure materials	6/1/2013	8/15/2013	Canceled	Using design specifications developed during the 2009 design efforts secure necessary materials and supplies.
D. Implement in-stream restoration efforts	7/15/2013	9/30/2013	Canceled	Coordinate contractors, suppliers, monitors, and other personnel necessary to implement in-stream restoration efforts.
Deliverable: E. CANCELED - Upper Camas Creek In-stream Implementation		12/16/2013	Canceled	See the Deliverable Specification above

See WE R for description of actions.

U: 156. Develop RM&E Methods and Designs

Title: CTUIR Monitoring Plan Development

Description: In order to report standard progress against regionally defined limiting factors the CTUIR Fisheries Habitat Program needs to create a set of protocols to measure the changes imparted to aquatic habitats as a result of CTUIR efforts. During the past several years the projects of the Habitat Program are increasingly focused on the elements of the CTUIR Rivervision to reconcile proposed projects with tribal culture as well as prioritizing ad justifying their validity along with other documents such as subbasin plans and recovery documents. While CHAMPS and other region wide efforts are

assembling protocols for habitat measures, it is important that we are able to independently defend the results of the CTUIR Accords work while reconciling those methods with regional monitoring protocols/efforts as best as possible. Accordingly, the CTUIR measurements and resulting descriptions of floodplain processes differ from those currently considered in regional processes (CHAMPS and PNAMP suggestions). For example our work frequently includes deliberate changes to surface/groundwater exchange, which are currently poorly characterized in CHAMPS and other region-wide habitat protocols. In order to meet this need we suggest a short and focused effort to produce an inclusive physical habitat monitoring plan. While individual restoration projects will have a unique set of conditions and a particular monitoring design, the goals of reducing the limiting factors remains constant. Baseline or trend, pre-project, implementation and effectiveness monitoring vary considerably by scale and currently, are poorly addressed by regional monitoring guidance (ex. CHAMPS). Toward this end we anticipate assembling sets of prioritized methods for each of the monitoring types listed above. Rather than being exclusively prescriptive, this monitoring document will serve as a foundation to build individual monitoring plan for each project. We anticipate that each of the individual basin habitat projects will develop focused monitoring plans that tier to the CTUIR central physical monitoring plan. Drawing from this central document each of the individual monitoring plans will be fit to the sites and the particular issues and dynamics that influence the limiting factors on the sites. A small team (maximum of 5) has been assembled including external experts to outline and produce a physical habitat monitoring plan in the next seven months drawing on the experience of the short, intense effort to create the Rivervision as an example to address this need. Using the CTUIR Rivervision, we will identify several central disciplinary themes (ex. geomorphology, open channel hydrology and hyporheic hydrology) and organize suites of monitoring methods around them. The final plan shall develop a suite of standardized monitoring practices addressing geomorphology, hydrology (surface and hyporheic), and riparian (vegetation) shall be developed to be used for pre and post restoration treatment efforts. Parameters associated with each Rivervision touchstone shall be arrayed to describe and create graphic relationships and discuss scale constraints related to MorPHoGEN - Multiscale Physical habitat Guidance. At this time CTUIR's Fishery Research Program is developing a similar monitoring plan with communication between Habitat and Research; eventually the two plans will be reconciled. During 2012 delays in getting the SOW amended to include this WE put off discussions until mid-year and additional delays suggest the effort will not be completed in 2012. As such, this WE has been included in the 2013 SOW to facilitate efforts during 2013 if the need arises.

Deliverable Specification: A report consisting of a suite of useful monitoring practices reconciled with CTUIR's River Vision, CHAMPS, and PNAMP to be used by CTUIR's Fishery Habitat Program. The resulting suite of practices will allow individual basin projects to select appropriate methods to satisfactorily track effectiveness and long term trends within individual basins while allowing for reconciliation with broader scope multi-basin plans.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	3/1/2013	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Review, revise, and Publish protocol, study design, and methods in monitoringmethods.org	2/1/2013	1/31/2014	Completed	The Protocol (including temporal and spatial design) and Methods for this work element are stored at monitoringmethods.org and need to be finalized (i.e., Published through monitoringmethods.org), preferably prior to data collection. Preparations for contract renewals must include reviewing any previously published Protocols/Methods to ensure that they are consistent with how work will be done in any subsequent contract.

C. Secure Cooperative Agreement.	2/1/2013	3/31/2013	Completed	Secure a Cooperative Agreement with the UGSG to facilitate USGS cooperation in the effort and funding transfer.
D. Attend cooperator meetings	2/1/2013	1/31/2014	Completed	Attend July, September, and November meetings and participate in literature searches and writing efforts between the meetings.
E. Produce draft monitoring protocols	2/1/2013	1/31/2014	Completed	Produce draft monitoring protocols and secure peer and supervisor review of the proposed protocols to be finalized and submitted to CTUIR's DNR Dept.
F. Submit Draft monitoring plan to BPA for review and comment	6/1/2013	1/31/2014	Active	Submit the draft plan to BPA personnel for review and comment.
Deliverable: G. CTUIR Monitoring Plan Development		12/31/2013	Active	See the Deliverable Specification above

With the more recent push to standardize monitoring practices throughout the Columbia River Basin The Project cooperated with staff from NOAA, USGS, and the CTUIR's Geography Department to develop a standardized set of monitoring practices for the CTUIR's Fishery Habitat Program. This plan essentially identifies a set of monitoring protocols drawn from existing literature and/or plans and identified standardized objectives for the program. Through this document project leads can select objectives specific to an individual effort and in turn appropriate monitoring protocols to track progress toward meeting the objectives. The plan does not attempt to develop a new or replace existing RM&E plans such as the Bio-Monitoring Plan developed and implemented by the CTUIR Fishery Research Program. Rather the plans will be used for status and trend monitoring implemented by individual project leads.

Busy schedules prevented our ability to complete the plan in 2013. As such this work element will be contained within the 2013 SOW as well. A final draft plan will be reviewed by CTUIR, USGS, and NOAA staff not associated with the plans development in early to mid-2014. At this time (April 2014) the final draft is almost complete. Once the plan has been finalized a draft will be attached to The Projects 2014 contract in Pisces.

V: 174. Produce Plan

Title: Camas Creek Coordination Effort

Description: During 2011 CTUIR collected data to identify existing conditions in Camas Creek adjacent and within Ukiah, OR. This led to the development of a document in 2012 using readily available data and that collected during 2011. The document was distributed to community members and the Ukiah City Council and led to a presentation to the city council in late 2012. Landowners were not successful in developing a consensus to deal with substantial sediment issues which will in time create flooding problems. As such the NFJDWC, representatives for the City of Ukiah, and CTUIR will cooperate to build support among landowners for coordinated implementation efforts. The development of specific implementation measures would be ideal, however, given community relations, building a consensus to general actions will be a time consuming effort in add of itself. Initial efforts will work to build that general consensus and if possible outline a data collection, design, and permitting schedule and begin collecting relevant information upon which a coordinated effort can be developed.

Deliverable Specification: Obtain a consensus among landowners and residents of the Ukiah valley. This consensus will be identified by the development of a schedule for efforts and/or the collection of data necessary for any design, permitting, and implementation effort.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	1/31/2014	Completed	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Outreach to individual landowners	2/1/2013	1/31/2014	Completed	Meet with individual landowners to gage their interest to participate in an effort to address relevant issues through a coordinated approach. This shall occur through face to face meetings, letters, and other available means of communication.
C. Coordination meeting	2/1/2013	1/31/2014	Completed	Schedule one if not more coordination meetings to discuss relevant issues, coordination efforts, and develop a prioritized list of actions.
D. Development of prioritized tasks	2/1/2013	1/31/2014	Completed	Develop a prioritized list of tasks suitable to all participants.
E. Data collection	2/1/2013	1/31/2014	Canceled	Identify missing or underdeveloped data and begin collecting as necessary.
Deliverable: F. Camas Creek Coordination Effort		1/31/2014	Completed	See the Deliverable Specification above

Following on presentations and City of Ukiah council meeting and based upon limited interest the NFJDWC and The Project interviewed eight landowners to better understand their views and obtain additional information which would be useful later on. The information was compiled by the NFJDWC and a meeting scheduled in December of 2013. During the first meeting tentative goals were identified and several optional treatments which included the potential for obtaining permits and funding. Approximately eight people attended the first meeting with only four attending a follow-up meeting in March. A local citizen has agreed to discuss the matter with local residents before a third meeting to be held in April of 2014.

There are several issues which appear to be limiting attendance at meeting and/or progress. However, a recent rain event which came close to damaging property may provide a reason for additional attendance and cooperation to identify and implement a solution. Coordination will continue to the extent possible after which time the NFJDWC and The Project will work with individual landowners to the extent possible.

W: 36. Develop Terrestrial Habitat Features

Title: Clear Creek Wood Placement

Description: In response to historic placer mining along Clear Creek restoration efforts beginning in the 1980's have returned year around flow and aquatic passage to Clear Creek and its tributaries, redistributed mine tailings to return and improve floodplain connectivity, planted native vegetation, and placed large wood to increase floodplain complexity. This effort will place additional large woody debris in select locations on the floodplain along Clear Creek to further increase complexity on top of distributed mine tailings. Although keying the wood into the streambank is ideal well sorted sediments below the ground surface and channel substrate do not make this practical. The loss of all in-stream flows into a small trench has been seen on numerous occasions and water moving across the floodplain will often disappear into sorted sediment within several feet. Placing material on the floodplain will begin to trap and seal the floodplain over time.

The UNF and CTUIR have discussed the potential for this effort over the last year and will be placing them during 2013. At this time 24 trees removed from an ODOT road project and given to the UNF are

available ranging from 6" to 21" in diameter. CTUIR is aware of the region wide programmatic MOU between BPA and the USFS requiring a 30% USFS cost share for projects on USFS lands. For this effort the UNF will provide funding for labor (~$2,000) and all trees with CTUIR providing the balance of funding for labor.

Deliverable Specification: Place 24 trees in select locations on the floodplain along Clear Creek atop redistributed mine tailings.

Planned Metrics: # of features developed: 12

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013	8/1/2013	Active	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure agreement with cooperators	2/1/2013	11/1/2013	Active	Secure an agreement with cooperators to facilitate the transfer of funds and implementation.
C. Select contractor.	2/1/2013	11/1/2013	Active	A qualified contractor shall be selected through a competitive bid process. Estimates for project's cost will be supplied to BPA once costs are determined.
D. Stage materials on site	6/2/2013	12/31/2013	Active	Transport materials to site for placement.
E. Place materials	6/17/2013	12/31/2013	Active	Place materials as agreed upon by cooperators.
Deliverable: F. Clear Creek Wood Placement		12/31/2013	Active	See the Deliverable Specification above

Conversation with the UNF occurred with initial plans for placement identified. Unfortunately, staffing changes for the UNF prevented implementation in 2013. The effort has been included in the 2014 SOW and will be implemented provided a new Fisheries Biologist arrives in time to and has the time to complete the work in 2014.

X: 34. Develop Alternative Water Source

Title: CANCELED - Icenogle Stock Pond

Description: CANCELED - Preliminary discussions during 2012 identified a potential stock water pond development near Ukiah, OR to improve cattle grazing. A preliminary site visit indicated the site may be adequate to develop a one acre pond although additional site visits will be needed to confirm that opinion. Should the project mature the pond will use a shallow natural swale with a levee approximately 200 feet in length and eight feet in width. The pond will also include an apparatus capable of draining the pond completely if the need arises.

Deliverable Specification: CANCELED - Develop a stock watering pond approximately one acre in area.

Planned Metrics: # of alternate water sources installed in the upland: 1

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Environmental compliance requirements complete	2/1/2013		Canceled	On-the-ground work associated with this work element cannot proceed until this milestone is complete. Milestone is complete when final documentation is received from BPA environmental compliance staff (completion can be based on pre-existing environmental documentation from BPA).
B. Secure implementation	3/1/2013		Canceled	Secure a contract through a competitive bid process. Projects costs will

contract.				be passed to BPA once they have been determined.
C. Secure implementation contract.	4/1/2013		Canceled	Secure an implementation contract based upon the bids received.
D. Develop pond.	4/1/2013		Canceled	Develop the pond per ODWR requirements.
Deliverable: E. CANCELED - Icenogle Stock Pond			Canceled	See the Deliverable Specification above

Discussions with the landowner regarding this effort began in late October of 2012 with the work element was included in the 2013 SOW to reduce potential delays when modifying the 2013 SOW to include a new work element. In late spring discussions with the landowner began in earnest including exactly what the landowner requested, cost share, potential for obtaining permits and funding and the efforts compatibility with the CTUIR's First Foods and Umatilla River Visio. The project declined participation in the effort due to limited benefit to wildlife, relative to cost and incompatibility with the CTUIR's First Foods and Umatilla River Vision.

Y: 185. Produce Pisces Status Report

Title: Periodic Status Reports for BPA

Description: The Contractor shall report on the status of milestones and deliverables in Pisces. Reports shall be completed either monthly or quarterly as determined by the BPA COTR. Additionally, when indicating a deliverable milestone as COMPLETE, the contractor shall provide metrics and the final location (latitude and longitude) prior to submitting the report to the BPA COTR.

Deliverable Specification:

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Feb-Jun 2013 (2/1/2013 - 6/30/2013)	7/1/2013	7/15/2013	Completed	
B. Jul-Sep 2013 (7/1/2013 - 9/30/2013)	10/1/2013	10/15/2013	Completed	
C. Oct-Dec 2013 (10/1/2013 - 12/31/2013)	1/1/2014	1/15/2014	Completed	
D. Final Jan 2014 (1/1/2014 - 1/31/2014)	1/17/2014	1/31/2014	Completed	
Z: 132. Produce (Annual) Progress Report				

All reports completed and submitted for approval before or shortly after due date.

Z: 132. Produce (Annual) Progress Report

Title: Submit Annual Report (1 February 12 - 31 January 13)

Description: The annual report summarizes the project goal, objectives, hypotheses, completed and uncompleted deliverables, problems encountered, lessons learned, and long-term planning. Examples of long-term planning include future improvements, new directions, or level of effort for contract implementation, including any ramping up or ramping down of contract components or of the project as a whole. Date range 1 February 2012 to 31 January 2013 will be agreed upon by the COTR and the contractor. This will coincide with the contract period. If producing a technical report for this contract, a discrete experiment, or a peer-reviewed publication, use work element 183: Produce/Submit Scientific Findings Report. To support BPAs RM&E reporting needs, the Sponsor should submit the annual report supported by Taurus tools and uploaded to Pisces when completed. This report will summarize annual results on a calendar year timeframe for data collected/analyzed and the significance of the findings

relative to Fish and Wildlife Program's restoration, O&M, and RM&E Strategies. This report satisfies RM&E reporting requirements in support of Program Strategy's progress toward program goals and objectives.

Deliverable Specification: Use the attachment tab in Pisces to attach your progress report. Progress reports attached in Pisces will be posted on the web.

Planned Metrics: * Start date of reporting period : 2/1/2012 * End date of reporting period : 1/31/2013

Milestone Title	Start Date	End Date	Status	Milestone Description
A. Review progress report format requirements	2/1/2013	4/1/2013	Completed	Contractor must review formatting requirements before starting the first draft of their report. Please follow the BPA-required format. http://www.efw.bpa.gov/IntegratedFWP/technicalreports.aspx
B. Complete the report	4/1/2013	1/31/2014	Active	Complete a report detailing efforts undertaken during the 2012 contract.
C. Confirm BPA has posted the progress report	4/1/2013	1/31/2014	Active	It usually takes BPA 30-45 days to post the final version of a report. This milestone's end date should therefore be 45 days after the Deliverable milestone. You will receive an email from BPA confirming that your report has been finalized and posted to the web.
D. Submit Draft Annual Report	1/1/2014	1/15/2014	Active	Draft Annual Report of work conducted for the calendar year to be submitted to BPA for upload by your COTR and if a RM&E Technical Report also includes RMESupport@bpa.gov.
E. Finalize Annual Report to BPA for upload into Pisces	1/15/2014	1/31/2014	Active	Final Annual Report of work conducted for the calendar year to be submitted to BPA COTR and RMESupport@bpa.gov to be uploaded into Pisces. Due by March 1st each year.
F. Finalize Annual ESA BiOp RPA Report to BPA	1/15/2014	1/31/2014	Active	If you support an ESA BiOp RM&E RPA, electronically submit a Final Annual BiOp RPA Report of work conducted for the calendar year for upload into Taurus for FCRPS BiOp or as appendix to annual report for other BiOps for upload in Pisces and notify you BPA COTR and RMESupport@bpa.gov that the report is complete. Due by March 1st each year.
Deliverable: G. Attach Progress Report in Pisces		1/31/2014	Active	See the Deliverable Specification above

Due to delays resulting from the need to complete the 2013 I.S.R.P. Proposal and draft a response the final reports were not completed on time. As such, this report contains information related to the 2012 and 2013 performance periods.

AA: 119. Manage and Administer Projects

Title: Produce Project Deliverables

Description: Submit next year's Statement of Work (SOW), Budget, and Property Inventory to the BPA COTR. Produce metric forms for each applicable Reasonable and Prudent Alternative (RPA), as well as project deliverables and project accomplishment narratives.

Deliverable Specification: All administrative tasks shall be fulfilled on time and with quality products. Timely responses to request for more information are required. Proactive communication between the contractor and BPA's Contracting Officer (CO) and Contracting Officer Technical Representative (COTR) is required if a significant lag in scheduled delivery lags.

Milestone Title	Start Date	End Date	Status	Milestone Description
A. #1 Funding package- Review current SOW/Budget with BPA's Environmental Compliance (EC) Lead and COTR	10/1/2013	1/31/2014	Completed	Review Environmental Compliance and work anticipated during the following year, paying particular attention to actions anticipated in the next SOW that do not yet have EC approval in the current SOW. Milestone 240-211 days before the contract end date.
B. #2 Funding Package - Conduct internal review (e.g., with Supervisor) of draft SOW and budget	10/1/2013	1/31/2014	Completed	Submit next year's SOW, Budget and inventory for internal contractor review before submitting to BPA. Milestone 210-185 days before the contract end date.
C. #3 Funding Package - Attach budget and inventory documents then click Submit in SOW tab	10/1/2013	1/31/2014	Completed	The SOW should include location, planned metrics, and focal species information (species benefited) for those work elements that require it. If contractor or contractor's organization takes longer than 30 days to sign the contract, the contractor will need to send this funding package to BPA more than 181 days before the end of the current contract. Milestone begins and ends on approximately day 180--actually on the last day of the month #6 for 12-month contracts.
D. #4 Funding Package - Use Pisces to revise and finalize the new package (SOW, Budget & Inventory)	10/1/2013	1/31/2014	Completed	The contractor is expected to make COTR-requested changes within 15 days of receiving feedback from the COTR, who will coordinate BPA's internal review. This includes re-uploading of Excel documents (budget and inventory) or re-submitting the SOW. In order to do this, the funding package must be approved by the COTR in the Workflow tab in Pisces a minimum of 130 days before the contract starts. (Milestone 179-120 days before contract end.)
E. #5 Funding Package - Respond to any Contracting Officer's requests for revisions within 7 days	10/1/2013	1/31/2014	Completed	Contractor must respond to and revise documents within 7 days of CO request (as communicated through the COTR or directly from the CO, with COTR concurrence). Milestone 119-90 days before the contract end date.
F. #6 Funding Package – Contractor returns signed contract to BPA's Contracting Officer	10/1/2013	1/31/2014	Completed	The contractor is required to respond to the CO and COTR indicating any problems within 20 days, or return the signed contract to the BPA Contracting Officer (CO) within 30 days (Milestone begins 89 and ends 60 days before contract end).
G. #7 Funding Package- Set up accounting for subsequent contract. Write subcontracts.	10/1/2013	1/31/2014	Completed	Contractor's administrative personnel commences internal work to assist contract manager. Accounting Office will set up cost codes for subsequent contract and notify the contractor's contract manager. Subcontracting personnel set up and offer subcontracts (59-1 days before the new contract start date).
H. Accrual - Submit September estimate to BPA	10/1/2013	11/15/2013	Completed	Provide BPA with an estimate of contract work that will occur prior to September 30 but will not be billed until October 1 or later. Data must be input in to Pisces by September 10 (begins Aug 10, ends Sep 10).
I. Administer subcontractor paperwork	2/1/2013	1/31/2014	Completed	Read all BPA contract terms and conditions include all contract clauses that are required to flow down into subcontracts in preparation for subcontract negotiation. Upload confidential copy of subcontracts to Pisces. Upload is due 30 days from date of subcontractor signature. Email the link to the COTR after upload (Delete if there are no subcontracts).
J. Submit monthly invoices electronically within 45 days	2/1/2013	1/31/2014	Completed	Contractor's Contract Manager should review all charges included in contract invoices to ensure they are allowable, allocable, and consistent with the approved line-item budget. For contracts with subcontracts, invoices and associated supporting backup must be submitted electronically within 90 days of the end of the month in which costs were incurred. Subcontracts should be written to include requirements for timely submission of invoices from the subcontractor. (This milestone should be marked red if more than 30% of the invoices in the reporting period are later than 45 days - 60 days if they have subcontracts).
K. Submit final invoice within 90 days of end of the previous contract to facilitate contract closeout	2/1/2013	5/1/2013	Completed	Within 90 days of the last day of the previous contract, the contractor shall issue a final invoice. In instances where an extension to the 90 days to produce the final invoice is required, (e.g., because subcontractors have not invoiced), AND the remaining contract balance is in excess of $100,000, the

				contractor shall: 1. review records, 2. estimate all outstanding costs, and 3. provide BPA with a single, cumulative estimate of all completed, but uninvoiced work. This amount will be emailed to FWinvoices@bpa.gov and the COTR (Subject line: Contractor CTUIR, Uninvoiced balance for BPA contract 56226, BPA Project 2000-031-00 is $612,981.25.
L. Inventory – Mark/Tag all equipment purchased during the contract	2/1/2013	1/31/2014	Completed	Governments have required procedures for what does, and does not have to be tagged. If you are not a government, please follow requirements in the standardized language of your contract and with any additional clarity as provided by BPA's Contracting Officer if you have questions.)
M. Facilitate inputting Cost Share information into Pisces at the Project level	10/1/2013	11/15/2013	Completed	If there are multiple contractors under this project, and you are the lead project Proponent, solicit cost share information for the previous federal FY from project partners by Oct 1. Enter previous FY's Cost Share information on the Project Cost Share tab by Nov 15 for all project partners.
N. E-waste disposal in accordance with state and local jurisdiction, laws and policies	2/1/2013	1/31/2014	Completed	Confirm that adequate waste identification and collection procedures are in place and proper disposal practices are followed according to your governmental policy. If you do not have a policy, please contact your CO and/or COTR for guidance. Purpose is to keep hazardous materials from entering the normal waste stream, becoming land-fill, or being boot-legged into unregulated reprocessing and/or metals extraction. E-Waste usually includes: batteries, light ballasts, fluorescent tubes and bulbs, modems, routers, computers and all equipment with electronic components. For current EPA guidance, please see: http://www.epa.gov/osw/conserve/materials/ecycling/rules.htm
O. Attend RRNW Symposium	1/27/2014	1/30/2014	Completed	Attend RRNW Symposium in Stevenson, WA.
P. Attend Wildlands Hydrology Level III course	9/2/2013	9/12/2013	Completed	Attend the Wildlands Hydrology Level IV course in Colorado or Idaho once the location has been determined.
Q. Attend USGS Sediment Training in Castle Rock, WA	5/6/2013	5/10/2013	Canceled	Attend the USGS Sediment Training in Castle Rock, WA. The dates for this training have yet to be determined.
Deliverable: R. Fulfill all administrative tasks with quality products and in a timely manner.		1/31/2014	Completed	See the Deliverable Specification above

The 2014 SOW was submitted on 1 November 2013 as required.

One person who planned on attending the RRNW attended that.

One person attended the Annual AGU meeting in place of the Wildlands Hydrology class identified in the SOW.

The USGS Sediment class was canceled by that organization prior to registration closing.

FINANCIAL PERFORMANCE

Annual budget for the 2012 and 2013 performance periods totaled $966,855 and $670,343 respectively with expenditures totaling $642,574 in 2012 and $593,374 (Table 7). The significant saving in 2012 was directly related to The Projects inability to complete the Upper Camas Creek in-stream implementation effort. This was partially off-set through a modification to the budget to fund the Monitoring Plan Development work element.

Expenditures are relatively consistent across the two performance periods with the largest differences related to Training and Travel reflecting additional staff time to meet with cooperatives from NOAA and the USGS. Unspent funds will be rescheduled and spent during the 2014-17 performance periods.

Category - 2012	**Value**	**Percent of Budget**
Subcontracts	$352,331	54.83
Salary & Fringe	$165,643	25.78
Indirect	$84,088	13.09
Training & Travel	$14,205	2.21
Vehicle	$13,178	2.05
Supplies & Equipment	$11,880	1.85
Lease	$1,000	0.16
Utilities	$249	0.04
Category - 2013	**Value**	**Percent of Budget**
Subcontracts	$328,641	55.39
Salary & Fringe	$155,821	26.26
Indirect	$76,015	12.81
Vehicle	$17,199	2.9
Capitol Expense	$6,163	1.04
Training & Travel	$4,049	0.68
Supplies & Equipment	$4,044	0.68
Lease	$1,200	0.2
Utilities	$242	0.04

Table 7. Costs within categories for the 2012 and 2013 performance periods.

SUMMARY

The 2012 and 2013 performance periods were the 11th and 12th year of implementation for The Project. Progress toward addressing limiting factors has occurred through cooperation with public and private landowners and cooperators such as the NFJDWC UNF and WNF. Cooperation and interaction between potential cooperators such as ODFW, USFS, NFDDWC, Monument and Grant SWCD, Warm Springs Tribe, and NRCS has been increasing through a variety of channels. While better coordination may not directly translate to the larger projects as I.S.R.P wants to see implemented, it will increase our ability to address limiting factors within a single subbasin where opportunities exist such as on public lands.

Work elements were completed during 2012 and 2013 with success. Failures to complete actions were directly related to insufficient landowner cooperation after initial discussions occurred and/or scheduling issues. Points of note include;

- The Physical Habitat Monitoring Plan conceived and detailed in the 2012 SOW arrived late in the year with delays in 2013 resulting from scheduling conflicts. At this point the plan is undergoing review by the USGS and NOAA and will be attached to The Projects 2014 SOW when completed.
- The conservation agreement associated with the Upper Camas Creek site was rescinded in early 2013. After much discussion the decision was made to abandon the effort and retain rights to remove large wood previously paid for. The wood was removed and placed at the Granite Creek site during the 15 July to 15 August in-stream work window; ending all obligations for the Upper Camas Creek site.
- The Camas Creek Coordination effort continues and will continue until a complete loss of interest or treatments are identified and implemented.

OUTLOOK

Restoration efforts in 2014 and beyond will continue to focus upon both public and private lands to the extent possible with actions focused within the priority areas of the Camas, Granite, and Desolation Creek basins. Cooperative efforts outside of these basins will reflect the extent of efforts occurring within the focus basins, potential for cooperators, and the technical feasibility of proposed actions. Coordination will continue work toward addressing multiple limiting factors within a single subbasin and/or large property to the extent possible with private lands being prioritized over public lands.

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