Fiscal Year 2004 – Program of Work Year End Summary Report

Watershed (Water/Soils) Program of Work (NFVW)

The Watershed Program of work emphasizes accomplishment of National and Regional soil and water stewardship priorities. Activities include providing soil and water resource analyses during project planning and environmental disclosure, supporting water rights acquisition/maintenance, monitoring implementation and effectiveness of Best Management Practices, conducting soil and water inventories to support project-level and Forest planning processes and meet corporate data standards, working with local partners to develop water quality and watershed restoration plans, and performing watershed improvement/restoration work in priority watersheds.

Watershed Improvement Projects – Appropriated Funds

Zone	Project Name	Funding (BLI)	Output
FW	NFVW02 FW Watershed Program Coordination	\$400,076 (NFVW)	na
West	NFVW02 SW Threemile Road NEPA	\$23,819 (NFVW)	1 EA
West	NFVW02 SW Rock Creek Project	\$27,255 (NFVW)	40 Ac / 1 Mi
West	NFVW02 SW Lake of the Woods Sediment Abatement	\$12,003 (NFVW)	Inven & 1 EA
West	NFVW02 Klamath Basin Adjudication	\$270,000 (NFVW)	na
		Regional Commit.	
South	NFVW02 02 Wildhorse Crk Channel & Wet Meadow	\$18,721 (NFVW)	20 Ac / 1.5 Mi
	Restoration		
South	NFVW02 01 Boyd Roads Decommissioning	\$6,049 (NFVW)	45 Ac
South	NFVW02 SE Drews Creek Willow Planting	\$12,049 (NFVW)	20 Ac / 1 Mi
South?	NFVW02 02 Helphenstein Creek Improvement	\$7,547 (NFVW)	9 Ac / 1.5 Mi
South	NFVW02 01 Five Mile Sub-watershed Road Assessment	\$11,481 (NFVW)	9,600 Ac Inven
	Total	\$789,000 (\$789,000	134 Ac
		Available)	

Inventory and Monitoring Program of Work (NFIM)

Emphasis is placed on watershed assessment and data collection for stream, range, and timber resources. Monitoring of projects and activities will identify compliance with plans and objectives. Legacy data is entered and migrated into corporate databases for support of project and plan development. Assessing the physical, chemical and biological quality water in selected high mountain lakes and stream aquatic inventories are ongoing activities.

Inventory and Monitoring – Appropriated Funds

Zone	Project Name	Funding (BLI)	Output
FW	NFIM02 FW Aquatic Stream Survey	\$56,000 (NFIM)	40 Mi
		Regional Commit.	
FW	NFIM NRIS Implementation	\$31,000 (NFIM)	Data
		Regional Commit.	Entry/Migration
FW	NFIM02 FW Forest Plan Ramp-up	\$15,593 (NFIM)	NA
FW	NFIM02 SE LSR Fuels Management Plan	\$137,926 (NFIM)	NA
FW	NFIM02 FW Inventory and Monitor Non-Forest Plant	\$49,431 (NFIM)	
	Communities		
FW	NFIM02 FW Monitor Land Management Plan	\$16,938 (NFIM)	1 Document
FW	NFIM02 FW Kathy Cushman Salary (Survey and Manage	\$78,885 (NFIM)	NA
	Prgm Mgmt)	Regional Commit	
West	NFIM02 FW Terrestrial Ecological Unit Inventory	\$301,000 (NFIM)	120,000 Ac
		Regional Commit.	
West	NFIM02 FW Lake Water Quality Assessments (Coop. Agree.	\$21,687 (NFIM)	5 Lakes
	With Rogue Community College)		
West	NFIM02 SW Water and Sediment Sampling (Coop. Agree.	\$16,487 (NFIM)	1 Lake
	With Oregon State University)		
West	NFIM02 NW Watershed Assessment Jack Creek	\$29,510 (NFIM)	1 WA
West	NFIM02 SW Lake of the Woods LSR Reallocation Project	\$9,012 (NFIM)	NA
West	NFIM02 SW Upper Williamson Watershed Assessment	\$15,000 (NFIM)	1 WA
South	NFIM02 SE Watershed Assessment Lower Sycan	\$71,311 (NFIM)	1 WA
	•	, ,	
		\$849,780 (\$849,780	
		Available)	

Other

RAC Projects

Zone	Project Name	Funding (BLI)	Output
FW	NFEX20 FW Staff Soil Scientist	\$36,384 (BLM)	na
West	NFEX50 SW Threemile Instream Log & Fish Barrier Placement	\$100,000 (ERO)	70 Ac / 2 Mi
West	RSF650 SW Thousands of Willows	\$34,820 (RAC)	70 Ac / 2.5 Mi
West	RSW664 SW Hog Creek Meadow Restoration	\$10,500 (RAC)	NEPA/Design
South	RSR651 SE Barnes Valley/Long Branch Instream	\$19,316 (RAC)	
South	RSR651 SE Barnes Valley, Long Branch Road Decom.	\$8,484 (RAC)	10 Mi
South	RSH655 01 Deming Creek Riparian Exclosure	\$4,875 (RAC)	20 Ac
South	RSI651 SE Sprague River Park	\$10,000 (RAC)	NEPA/Design
South	NFCC02 SE Cottonwood Creek Instream Design and Fence	\$13,714	40 Ac
	Construction		
North	RSF606 FW Paradise Creek Fish Passage	\$16,000 (RAC)	NEPA/Design

Watershed Improvement (NFVW)

Project Name: Threemile Road NEPA

Location: Klamath Ranger District, Threemile Sub-watershed, HUC 180102030201 **Purpose and Need:** Forest Service Road 3413 has been identified as having adverse impacts on Bull trout and Bull trout habitat. Develop alternatives to address impacts of the 3413 road on Bull trout habitat.

<u>Description</u>: NEPA development. <u>Project Lead</u>: Neil Anderson

Planned Accomplishment: 1 NEPA document.

Project Status: NEPA in progress. **Accomplishment Date:** 09/30/04

Project Name: Rock Creek Large Wood Placement

Location: Klamath Ranger District, Rock Creek Sub-watershed, HUC 180102030205 **Purpose and Need:** There is a need to improve fish habitat for Redband trout. Rock Creek is also proposed habitat for Bull trout. The purpose is to add large woody debris (LWD) to the creed to create pools and spawning and rearing habitat. The project will also reduce sediment inputs to creek by decommissioning the road adjacent to stream. **Description:** Add LWD. Decommission Forest Service Rd. 060 adjacent to stream

channel.

Project Lead: Neil Anderson

Planned Accomplishment: 40 acres/1mile

Project Status: NEPA is completed and permits acquired. Logs are decked at project site and ready for placement. Forest Service is negotiating with helicopter contractor to place logs in stream.

Accomplishment Date: 09/31/2004



Typical steam reach in Rock Creek. Channel lacks LWD



Road 060, to be decommissioned.



Erosion on Rd. 060.

Project Name: Lake of the Woods Sediment Abatement

<u>Location</u>: Klamath Ranger District, Lost Sub-watershed, HUC 180102030301

<u>Purposes and Need</u>: Identify sediment sources to Lake of the Woods for the purpose of

designing and implementing measures to protect lake water quality.

<u>Description</u>: Inventory road system to identify sediment sources. Develop NEPA for

watershed improvement projects. **Project Lead:** Neil Anderson

Planned Accomplishment: 1 NEPA document.

Project Status: Project not yet started.

Accomplishment Date: Inventory to be completed by 09/30/04.

Project Name: Wild Horse Creek Channel & Meadow Restoration

<u>Location</u>: Lakeview Ranger District, Wild Horse Creek Sub-watershed, HUC

180102040202

<u>Purpose and Need</u>: Past channel down cutting has lowered the water table and reduced water storage capacity. Meadow restoration will be achieved through elevating water table and increasing water storage capacity.

Description: Raise up to 5 existing check dams, construct up to 3 new check dams. Protect raw banks with juniper. Plant willow cuttings (2005) as necessary and transplant whole willow as necessary in 2004.

Project Lead: Jim Leal & Jill Ralston

Planned Accomplishment: 20 acres/1.0 miles stream

Project Status: Completed

Accomplishment Date: August, 2004



Down cut channel



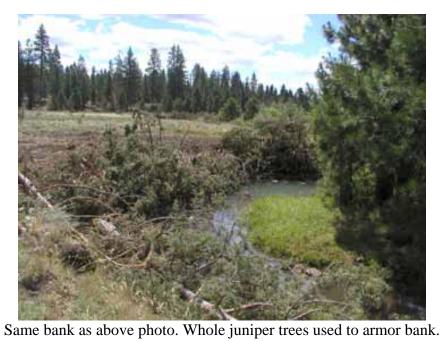
Over wide, down cut channel.



Juniper trees used to armor banks.



Eroding, unvegetated bank.





Excavator building new floodplain, then laying sedge mats.



Excavator placing sedge mat on new floodplain.

Project Name: Boyd Road Decommissioning

Location: Bly Ranger District, Deming Creek Sub-watershed, HUC 180102020701 **Purpose and Need:** Deming Creek is occupied by bull trout from its confluence with Anderson Field, approximately on mile downstream of the Forest boundary, to its headwaters. Deming Creek is Proposed Critical Habitat for bull trout and is recognized as supporting one of the strongest populations of bull trout remaining in the Klamath Basin. The Deming Creek Road Obliteration Project implemented in 1998, involved the obliteration (full re-contour) of approximately 3.3 miles of the 3400-018 road adjacent to

Deming Creek in an effort to reduce fine sediment to desired levels in Deming Creek. The Deming Creek Project was effective at reducing fine sediment levels in Deming Creek, although fine sediment levels in Deming Creek remain in excess of desired conditions (31% fines in 1998; 23% fines in 2001; desired condition is <20% fines). **Description:** Approximately 15 miles of road will be decommissioned in the Deming Creek sub-watershed. Decommissioning treatments may include any of the following: 1) removal of hydrologically unstable roads from the Forest transportation system without any on the ground treatment (approximately 10 miles). This will only occur on roads that are well drained (i.e. out sloped), currently impassable to vehicle traffic, and well vegetated. Further treatment on this type of roads could retard hydrologic recovery: 2) closing with barrier structures and adding drainage features as specified in best management practices (BMPs) (approximately 4 miles); 3) using a sub-soiler or ripper to shatter compacted soils in the road prism and adding drainage features as specified in BMPs (approximately 1 mile). Approximately 1.5 miles of the 3400-018 road will be resurfaced with gravel to reduce sediment input to Deming Creek. Pending Regional funding, approximately 5 miles of the 3400-018 road will be hydrologically improved through the addition of drainage features, including rolling dips and relief culverts to improve watershed function.

Project Lead: Jill Ralston

Planned Accomplishment: 45 acres/20 miles

Actual Accomplishment: 39 acres (16 ft. road width)/6 miles in 2003, 14 miles in 2004

<u>Project Status</u>: Completed <u>Accomplishment Date</u>: 06/2004



Sub-soiled road.



Waterbar on road that has naturally revegetated.



Closed/Block road.

Project Name: Drews Creek Willow Planting

Location: Bly Ranger District, T36S, R17E, Sec. 5, Quartz Creek Sub-watershed, HUC

180200010101

<u>Purpose and Need</u>: This reach of Drews Creek has elevated levels of bank instability created by past channel down cutting and management activities. Encourage revegetation of stream banks to increase bank stability thereby protecting the associated meadow and reducing sediment deposition downstream.

Description: Plant 1000 willow stakes on poorly vegetated banks along Drews Creek.

Project Lead: Jim Leal

Planned Accomplishment: 20 acres/1mile

Project Status: Completed. Project was monitored on 06/23/04.

Accomplishment Date: 04/2004



Raw, unstable banks on Drews Creek.



Sprouted willow cuttings in banks of Drews Creek (06/13/04).



Sprouted willow cuttings.



Sprouted willow cuttings.



Sprouted willow cuttings on left bank.

Project Name: Helphenstein Creek Improvement

Location: Lakeview Ranger District, T38S, R18E, Sections 23, 24, 25, 26, Upper

Cottonwood Creek Sub-watershed, HUC 180200010207

<u>Purpose and Need</u>: Helphenstein Creek has elevated levels of fine sediment and lacks habitat complexity and LWD. Restore natural stream function; reduce fine sediment deposition in downstream fish habitat.

<u>Description</u>: Obliterate Forest Service Road 015 that is confining the stream channel.

Add LWD to the channel. **Project Lead:** Jill Ralston

Planned Accomplishment: 9 acres/1.5 miles

<u>Project Status</u>: Completed. <u>Accomplishment Date</u>: 07/14/04



Road near channel before obliteration – initially ripped to break up compaction.



Excavator obliterating road, restoring the natural contours.



Roadbed after obliteration.

Project Name: Five Mile Creek Sub Watershed Road Assessment

<u>Location</u>: Bly Ranger District, Five Mile Creek Sub-watershed, HUC 180102020402 <u>Purpose and Need</u>: Address high road densities in the Five Mile Creek Sub Watershed.

Reduce road densities and improve drainage in the Five Mile Sub Watershed.

<u>Description</u>: Conduct base inventory and analysis to determine restoration needs.

Project Lead: Jill Ralston

Planned Accomplishment: 1 Inventory/Analysis document.

Project Status: Inventory complete. Roads analysis, project design and NEPA to be

completed 9/30/05. Implementation in FY06.

Accomplishment Date: See above

Inventory and Monitoring (NFIM)

Project Name: Aquatic Stream Survey, Level II Inventories

Location: Fremont-Winema, Forest-wide

<u>Purpose and Need</u>: Periodic, recurring inventories are an integral part of the fish habitat and watershed management programs and form the foundation of effective program management. They will generate the baseline information that will be used to support a variety of management activities, including, but not limited to; watershed analysis, timber sales, range allotments, special use permitting, and fish habitat and watershed restoration programs.

The purpose of Level II inventories is to identify existing stream channel, riparian, and aquatic ecosystem conditions on a watershed scale. As inventories are completed and repeated over time, the information generated by them can be useful in measuring changes in stream channel conditions and determining attainment of habitat management objectives. The inventory can be applied as a basic monitoring tool.

<u>Description</u>: The streams to be surveyed in 2004 were identified by the District Fish Biologists. Data is then collected on these streams to identify existing aquatic and riparian conditions, and then entered in the NRIS database.

Project Lead: Steve Ruda

Planned Accomplishment: 40 miles

Project Status: (As of 8/16/04) Cold Creek, 3.5 miles; Boulder Creek, 2.1 miles; North Creek, 2.7 miles; Jackson Creek, 9.7 miles; Mud Creek, 2.4 miles; Camas Creek, 1.9 miles:

Accomplishment Date: 09/30/04



Jackson Creek, Chemult District



Mud Creek, Lakeview District

<u>Project Name</u>: Water Quality Assessments – Participating Agreement with Rogue Community College

<u>Location</u>: Lake of the Woods, Miller Lake, Fourmile Lake, Harriette Lake, and Blue Lake.

<u>Purpose and Need</u>: The purpose and need for the multi-year (June, 2004 through May, 2009) Participating Agreement between Rogue Community College and the Fremont-Winema National Forests is to enable the College and the Forest Service to assist each other accomplish mutually beneficial objectives related to environmental education; assess physical, biological and chemical quality of selected high mount lakes on the National Forests; and to provide a learning experience in aquatic and environmental management for students at the College.

Description: In FY 2004 the College will collect in-situ water quality data and instantaneous grab samples at Lake of the Woods, Miller Lake, Fourmile Lake, Harriette Lake (Mountain Lakes Wilderness), and Blue Lake (Gearhart Mountain Wilderness). The work will be performed at Lake of the Woods two (2) times between June and August, and at Miller, Fourmile, Harriette and Blue Lakes one (1) time each in August, September, or October. A benthic plant survey, bacteria survey, and beach erosion survey will be performed one (1) time at Lake of the Woods. The College will prepare a final report, due May 31, 2005, which will compile and assess the chemical, physical, and biological data. The report will analyze trends, where past sampling warrants, to document any changes occurring in these lakes; a trophic state index will be calculated using the nutrient balance, clarity, chlorophyll, productivity, and the photometric extinction coefficient. Conclusions will include recommendations for future lake management.

Project Lead: Dave Pawelek

Planned Accomplishment: 5 lake water quality assessments

<u>Project Status</u>: Water quality ampling has been done at Lake of the Woods, Miller Lake and Fourmile Lake. Benthic plant survey and beach erosion survey at Lake of the Woods has been completed. Water quality ampling will be done in September at Harriette Lake and Blue Lake.

Accomplishment Date: Sampling and analyses will be complete by end of October and the final report will be completed by May 31, 2005.

<u>Project Name</u>: Water and Sediment Sampling – Participating Agreement with Oregon State University

Location: Lake of the Woods

Purpose and Need: The purpose and need for this Participating Agreement is to enable Oregon State University and the Forest Service to assist each other to accomplish mutually beneficial objectives related to environmental education. This includes: 1) coordination and completion of water quality related physical, biological, or chemical survey on selected lakes and streams on the Fremont-Winema National Forests, as directed by the Forest Service, and 2) providing a learning experience in aquatic and environmental management for students at Oregon State University, Department of Fisheries and Wildlife. The agreement is for the period 2003 through 2008.

Description: Work that is planned for FY 2004 includes: 1) investigation and summary of land use and fisheries history for the Lake of the Woods watershed; 2) outreach/education at Lake of the Woods – a) develop a permanent display for Lake of the Woods Lodge describing the work of Oregon State University and Rogue Community College to date; b) develop a supporting web site for the Lake of the Woods project that can be queried at increasing levels of detail relating to the land use and fisheries history of the lake, the modern limnology and littoral sediment composition, and paleolimnology of the lake; 3) feasibility study for bathymetric survey and sediment profiling in lakes using a floatable ground penetrating radar that can be towed behind a motorized boat; and 4) completion of lab work for lake sediment core samples taken in 2003.

Project Lead: Dave Pawelek

<u>Planned Accomplishment</u>: Written report documenting land use and fishing history for the last 150 years, permanent display and draft web page documenting recent work accomplished at Lake of the Woods by Rogue Community College and Oregon State University, and a written report describing the feasibility of using ground penetrating radar to perform bathymetric surveys and sediment profiling in lakes.

Project Status: Work is in progress.

Accomplishment Date: All work will be completed by the end of September 2004, except the feasibility report for performing lake bathymetric survey and sediment profiling, which will be completed prior to January 1, 2005.

Project Name: Jack Creek Watershed Assessment

Location: Chemult Ranger District, Jack Creek Watershed

<u>Purpose and Need</u>: Watershed analysis is a planning process for understanding an ecosystem at a watershed scale. The watershed analysis follows the process outlined in *Federal Agency Guide for Watershed Analysis, version 2,3*. This 6-step process addresses social values, biological capabilities and physical characteristics of the landscape at the watershed level.

Description: Complete watershed analysis using the "Federal Guide for Watershed

Analysis."

Project Lead: Ed Brown

Planned Accomplishment: 1 Watershed Assessment covering 60,000 acres

<u>Project Status</u>: Undergoing final review <u>Accomplishment Date</u>: 09/30/2004

Project Name: Lower Sycan Watershed Assessment

Location: Bly Ranger District,

Purpose and Need: To characterize the human, aquatic, riparian and terrestrial features,

conditions, processes and interactions within the watershed.

Description: Complete the watershed analysis using the "Federal Guide for Watershed

Analysis."

Project Lead: Dick Ford

Planned Accomplishment: 1 Watershed Assessment

Project Status: In progress

Accomplishment Date: 09/30/2004

Other Projects (Various Funding Sources)

Project Name: Threemile Instream Log & Fish Barrier Placement

Location: Klamath Ranger District, Threemile Sub-watershed, HUC 180102030201 **Purpose and Need:** There is a need to improve and expand existing Bull Trout habitat in Threemile Creek. The purpose is to restore step pool channel configuration by placing LWD in the channel.

Description: Eighty (80) pieces of large wood will be placed in the channel.

Project Lead: Neil Anderson

Planned Acomplishment: 70 acres (riparian acres)/2miles (Treated reach will be 1 mile,

improved habitat will be 2 miles)

Project Status: Plan/design completed. Permits applied for. Project is on hold while

waiting for permits and consultation with USFW.

Accomplishment Date: 11/15/04

Project Name: Thousands of Willows

Location: Chiloquin Ranger District, Deep Creek sub-watershed, HUC 180102010103

Purpose and Need: There is a need to lower water temperatures in the Upper

Williamson River. The purpose is to replace native riparian hardwoods that have been affected by past activities and to ultimately provide shade to the Upper Williamson River.

Description: The proposed planting started in 2002 and will continue through 2006. Planting will take place from the edge of the channel, where possible, out to a distance of up to 100 feet on both sides of the channel. Planned planting spacing will be from 2 ft. up to 8 ft., depending on conditions. Planting stock will be 1-0 bare-root and/or container stock, with the possibility of un-rooted willow cuttings also being planted. Planting methods will be by shovel for bar-rooted stock, auger for container stock, and shovel or

planting bar for willow cuttings. To reduce adverse impact of depredation of the seedlings by cattle and wildlife, it may be necessary to install 3'-4' tall wire protectors around a percentage of the planted seedlings. These protectors would be either "free-standing", or anchored with metal fence posts. Once the seedlings have become established (1-3 years), the wire protectors will be removed from the project area.

<u>Project Lead</u>: Tom Gorman.<u>Planned Accomplishment</u>: 6 acres (25 feet width on both sides of channel)

Actual Accomplishment: 1 stream mile, 2750 plug seedlings and 1375 willow cuttings.

Protective cages installed around 5% of plantings.

Project Status: Target for 2004 was met. This is a multi-year project.

Accomplishment Date: 06/15/2004



Upper Williamson River, Chiloquin District. Typical treated reach.



Unrooted willow cuttings.



Rooted willow plugs.



Rooted willow plug planted in augured hole.



Auger digging holes for planting.



Wire protector cages installed around planted seedlings.



Wire cages protecting planted seedlings.

Project Name: Hog Creek Meadow Restoration

<u>Location</u>: Chemult Ranger District, Hog Creek Sub-watershed, HUC 180102010501, T.33S.,R8E., Secs. 2&11

<u>Purpose and Need</u>: The purpose and need for FY 2004 project is to complete the NEPA and design work in preparation for implementing restoration work in FY 2005. The goals of the project are to restore the hydrologic function of the meadow that has been alerted by past ditching and draining.

<u>Description</u>: Work that planned for FY 2004 using Title II and FS funds includes site survey, NEPA & Sec. 7 ESA consultation, and project design/engineering.

Implementation will occur in 2005. The project will restore wet meadow conditions in Hog Creek Meadow by altering (increasing) water storage in the meadow soils, prolonging and increasing late season base flow, and increasing the extent of wet meadow vegetation. Ditches will be filled that were once used to drain the meadow using mostly natural materials (brush, soil) obtained from on-site sources or with fill material brought in from outside sources, if necessary. Natural channels will be re-connected in the meadow to restore natural drainage patterns. Loose rock check dams will be constructed in certain channels to serve as grade control.

Project Lead: Dave Pawelek

<u>Planned Accomplishment</u>: Ultimately project will restore approximately 400 acre of wet meadow. FY 2004 accomplishment will consist of completing NEPA documents and project design.

<u>Project Status</u>: Specialist reports have been written. NEPA will be completed prior to September 30. Project design will be completed by the end of September.

Accomplishment Date: 09/30/2004

Project Name: Barnes Valley/Long Branch Instream

Location: Bly Ranger District, Long Branch Creek sub-watershed, HUC 180102040503 **Purpose and Need:** An existing headcut threatens water table and water storage capacity in upstream wet meadow. Protect 30 acres of wet meadow by stabilizing head cuts to stop channel erosion and prevent meadow dewatering; preserve soil productivity. **Description:** Relax slope of headcut using an excavator and protect with geotextiles. Re-

Project Lead: Jill Ralston

Planned Accomplishment: 30 acres

vegetate headcut with native vegetation.

Project Status: Planning completed. EA is not completed.

Accomplishment Date: 08/2005

Project Name: Barnes Valley/Long Branch Road Decommissioning

Location: Bly Ranger District, Long Branch Creek Sub-watershed, HUC 180102040503 **Purpose and Need:** There is a need to restore watershed function impaired by high road densities. The purpose of the project is to reduce road densities and restore hydrologic function by decommissioning 10 miles of road.

<u>Description</u>: Rip roads and install water bars.

Project Lead: Jill Ralston

Planned Accomplishment: 20 acres/10 miles

Project Status: Planning completed. EA is not completed.

Accomplishment Date: 07/2005

Project Name: Deming Creek Riparian Exclosure

<u>Location</u>: Bly Ranger District, Deming Creek sub-watershed, HUC 180102020701 <u>Purpose and Need</u>: Prevent cattle damage to stream banks and riparian area located upstream of critical Bull Trout habitat. Reduce sediment inputs and bank instability due to cattle.

<u>Description</u>: Build exclosure fence to facilitate cattle movement throughout the allotment.

Project Lead: Jill Ralston

Planned Accomplishment: 5 riparian acres (+ 15 upland acres)

<u>Project Status</u>: Project not yet started. <u>Accomplishment Date</u>: 09/30/2005

Project Name: Sprague River Park

Location: Bly Ranger District, T35S, R15E, Sec. 8, Lower South Fork Sprague Sub-

watershed, HUC 180102020504

Purpose and Need: Protect trail bridge over the Sprague River. Stabilize stream banks

adjacent to trail bridge.

Description: Instream channel design to relieve stream flow pressure from unstable

banks adjacent to trail bridge. **Project Lead:** Jill Ralston

Planned Accomplishment: Complete survey and design in 2004

Project Status: Planning and design will be completed 09/2004. NEPA will be

completed 2005. Implementation is planned for 2006.

Accomplishment Date: 2006



Footbridge at Sprague River Park.



Undercut banks.

Project Name: Cottonwood Creek Instream Design and Fence Construction **Location:** Lakeview Ranger District, T38S, R18E, Sections. 14 & 15, Upper Cottonwood Creek Sub-watershed, HUC 180200010207

<u>Purpose and Need</u>: This reach of Cottonwood Creek has elevated levels of fine sediment, unstable stream banks and lacks fish habitat diversity and hiding cover. The project will create a stable stream channel that is in balance with its landscape setting. Stabilize stream banks, reduce sediment deposition to down stream areas, increase fish habitat diversity and hiding cover, accelerate stream channel aggradation, and provide long-term solution for maintaining flow to landowner ditch. Stabilize head cut in Tom Young Creek and promote channel aggradation.

<u>Description</u>: Alternatives for treatment include: 1) Fence out reach and plant with native riparian vegetation; 2) fence out reach, excavate/create floodplain, plant with native riparian vegetation; 3) fence out reach, design and construct new stream channel.

Project Lead: Jim Leal

Planned Accomplishment: Data collection and design in FY04. NEPA and implementation in FY05. Approximately 10 acres/0.4 miles of channel and floodplain will be restored.

<u>Project Status</u>: Initial data collection and design are completed. Additional data and design work are required Regional team reviewed the project on 8/03/2004. **Accomplishment Date:** Implementation scheduled for completion by 08/2005



Cottonwood Creek, reach to be treated.



Private landowner diversion ditch.



Over wide, down cut channel.



Down cut channel. Unstable banks.

Project Name: Paradise and Crazy Creeks Culvert Replacement Location: Paisley Ranger District, Paradise Creek Subshed, HUC 180102020101 Purpose and Need: To improve upstream and downstream passage for aquatic organisms in the Upper Sycan River within areas designated as proposed Critical Habitat for bull trout. Successful implementation of the project will provide access to approximately 6.0 miles of habitat on Paradise Creek and 4.0 miles of habitat on Crazy Creek.

Description: Data collection and design are scheduled for FY04. The Crazy Creek site would most likely involve and upgrading in culvert size and countersinking with a natural stream bottom. Paradise Creek site may include replacing existing culvert with opened bottom pipe arch. A bridge may be a possibility at this location.

Project Lead: Rich Pyzik

Planned Accomplishment: Improve fish access to approximately 10.0 miles of habitat.

Project Status: Data collection and project design should be completed in FY04.

Accomplishment Date: Design work will be completed in 2004. Implementation will

be completed in 2005 or 2006, depending on funding availability.

Compile By: David Pawelek Steve Ruda

Forest Hydrologist Hydrologic Technician