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Rehabilitate Newsome Creek Watershed

Annual Report CY 2008

(12/1/07 - 11/30/08)

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Abstract

The Nez Perce Tribe Department of Fisheries Resource Management, Watershed Division approaches watershed restoration with a ridge-top to ridge-top approach. The Nez Perce Tribe (NPT) and the Nez Perce National Forest (NPNF) have formed a partnership in completing watershed restoration activities, and through this partnership more work is accomplished by sharing funding and resources in our effort.

The Nez Perce Tribe began watershed restoration projects within the Newsome Creek watershed of the South Fork Clearwater River in 1997. Progress has been made in restoring the watershed through road decommissioning and culvert replacement. Starting in FY 2001 and continuing into the present, a major stream restoration effort on the mainstem of Newsome Creek has been pursued. From completing a watershed assessment to a feasibility study of 4 miles of mainstem rehabilitation to carrying that forward into NEPA and a final design, we will begin the effort of restoring the mainstem channel of Newsome Creek to provide spawning and rearing habitat for anadromous and resident fish species. Roads have been surveyed and prioritized for removal or improvement as well as culverts being prioritized for replacement to accommodate fish passage throughout the watershed.

Acknowledgements

Acknowledged below is a list of people who worked very hard on this project demonstrating great enthusiasm and commitment to make it a success.

U.S. Forest Service, Nez Perce National Forest: Joe Bonn, Engineer

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U.S. Forest Service, Nez Perce National Forest: Nick Gerhardt, Forest Hydrologist

U.S. Forest Service, Nez Perce National Forest: Jake Strohmeyer, Engineer

U.S. Forest Service, Nez Perce National Forest: Doug Bladek, Engineer

U.S. Forest Service, Nez Perce National Forest: Dave Mays, District Fish Biologist

U.S. Forest Service, Nez Perce National Forest: Andy Bryden, District Hydrologist

Nez Perce Tribe:

Project Leader: Stephanie Bransford, Biologist III

Project Technician: Phyllis Heath, Technician III

Background

Newsome Creek and its tributaries encompass approximately 42,576 acres within the South Fork of the Clearwater River. This watershed has a very high habitat potential for both anadromous and resident fish with spawning occurring in the upper reaches and providing important subadult/adult rearing habitat for fish in the lower section (USDA Forest Service, 1998).

Aquatic processes and conditions have been altered from historic levels, primarily the stream/riparian and sediment regimes. The Newsome area has had a considerable amount of management activities within its boundaries. Most of the mainstem channel, and some tributaries, have had historic mining that negatively affected stream and riparian processes. Unfortunately, most of these impacts occurred in the lower gradient sections, which provide the best habitat for spawning and rearing.

The end result of the dredging was to convert extremely complex aquatic ecosystems into simplified, unproductive, confined stream channels (USDA Forest Service, 1998). By the 1960's more than 24 million cubic yards of material, along 30 miles of stream had been dredged in the subbasin. These activities have altered the riparian area by destroying the canopy and placing tailing piles within that previously vegetated area. These areas are not revegetating. Additionally, a road parallels the mainstem and encroaches upon the stream/riparian processes in sections.

Within the watershed's uplands there has been about 8,000 acres of timber harvest that has created 220 miles of transportation roads (USDA Forest Service, 1998). These 220 miles constitute to 3.3 miles of road per square mile, which gives it a high road density according to the 1992 Nez Perce National Forest (NPNF) coarse filter watershed condition analysis. This analysis considered watershed sensitivity, disturbance indicators, and the condition of streams relative to Forest Plan objectives (USDA Forest Service, 1998).

The current modeled sediment yield within the watershed is 13% over natural base. The basic pattern is that the sediment peaks resulting from wildfire are of similar magnitude as the development era peaks, but that the chronic sediment yield between peaks has been progressively increasing since roading began.

Newsome Creek is a very high priority for restoration within the South Fork Clearwater subbasin because of its high potential aquatic productivity, intact aquatic assemblages, and current conditions and processes affected by past management activities. Past management activities have most significantly affected sediment regimes as a result of road building and mining. In addition, in-stream and near-stream activities have affected channel morphology, cover, and habitat complexity. Mining, livestock grazing, road construction, timber harvest, and removal of large wood have contributed to altered habitat conditions. More subtle alteration of the complexity of aquatic habitat at the landscape scale has been caused by fire exclusion and timber harvest.

Work Elements

- A : 165. Produce Environmental Compliance Documentation - Provide environmental compliance information to BPA
- B : 122. Provide Technical Review – Provide technical review for Newsome Roads Phase II (decommissioning) and Mule Creek Culvert Replacement.
- C : 157. Collect/Generate/Validate Field and Lab Data – Mule & Mare Creek Culvert Replacement Data Collection
- D : 157. Collect/Generate/Validate Field and Lab Data – Removed roads data collection
- E : 157. Collect/Generate/Validate Field and Lab Data - Stream habitat data collection
- F : 162. Analyze/Interpret Data – Condition/Health of Newsome Creek
- G. 119. Manage and Administer Projects – Management, Coordination and Communication.
- H : 132. Produce Annual Report - Annual report
- I : 185. Produce Pisces Status Report - Periodic status reports for BPA

Results

Environmental Compliance

NEPA and Environmental / Cultural consultation for the Newsome Creek Rehabilitation Project was completed during the 05 & 06 contract years.

All NEPA and consultation documents have been forwarded onto the BPA NEPA specialist for this project, Colleen Spiering.

Coordination and Management

Coordination and pre-work meetings between the Nez Perce Tribe and the Nez Perce National Forest were held throughout the contract period to organize activities that would be completed and protocols that would be used to complete those activities. Written agreements were signed between the Nez Perce Tribe and the Nez Perce National Forest to document each entities roles in the project as well as the cost share for each agency. Nez Perce Tribe employees attended relevant BPA meetings, reporting and accrual estimates were completed and submitted to BPA as requested, and the FY 2009 SOW was submitted to BPA.

Mule Culvert Replacement

The Mule Creek Culvert was replaced this contract year. The existing 48" CMP was replaced with a bottomless steel-structure plate arch. Mark Agee out of Kooskia was the subcontractor. Stephanie Bransford & Phyllis Heath were the primary inspectors while Doug Bladek was the COR for the project.

Original Culvert during removal

Mare Creek Culvert Replacement

Newsome Road Decommissioning Phase II

An additional 8 miles of road (spurs off of the main 1826 road) were decommissioned during the field season of 2008. The contractor was Dale Barger out of Orofino, ID. The primary inspector was Phyllis Heath and Doug Bladek was the COR.

During Road Decommissioning

Immediately After Road Decomm.

Monitoring

Automatic temperature loggers are deployed each year at various locations within the Newsome Creek watershed by the Forest Service. The temperature loggers were placed at the same location as they have been in past years to accommodate repetition in data collection. The automatic recorders were collected from the field in October 2008. Data was downloaded to a computer and summarized in the monitoring report.

Road obliteration monitoring was also conducted on Phase I roads. Results were analyzed and reported in a Road Decommissioning Monitoring Report. Photo points were replicated, vegetation plots were taken as well as data collected on stream crossings. The only main thing to report here is that a new (and currently small) weed infestation of orange hawkweed was found. We reported this back to the Forest Service botanist and they are planning to treat the site.

Pre and post construction monitoring for the Mule Creek culvert replacement also occurred as well as the 1 year post-implementation survey for the Mare Creek culvert replacement. Surveys were conducted in accordance with the "National Inventory and Assessment Procedure for Identifying Barriers to Aquatic Organism Passage at Road-Stream Crossing" prepared by the USFS in 2003 and the Nez Perce Tribe's culvert monitoring protocol. The Nez Perce Tribe will perform these surveys and continued annual monitoring when the installations occur in the future as funding allows.

Discussion

The main focus of this contract year was the replacement of the Mule Creek Culvert, 8 miles of road decommissioning, and general administration of the Newsome Creek Watershed Project. All implementation went well and no setbacks were encountered. Riparian planting was accomplished on the culvert replacement site with plug plantings as well as alder clump plantings.

For the future contract year, work will consist of Phase III Road Decommissioning (10 miles) and Improvement (17 miles) as well as preparing and awarding the construction contract (based on the final design) for the restoration of Stream Reach 5.

As funds become available in future contract years we will have implementation work ready to go. We do anticipate another Roads NEPA starting in 2010 to cover additional road decommissioning & improvement in the southern portion of the watershed.