

United States Government

Department of Energy

Bonneville Power Administration

memorandum

DATE: April 24, 2001

REPLY TO
ATTN OF: KEC-4

SUBJECT: Supplement Analysis for the Watershed Management Program EIS (DOE/EIS-0265/SA-51)

TO: Linda Hermiston - KEWN-4
Fish and Wildlife Project Manager

Proposed Action: Chumstick Creek Culvert Replacement Projects

Work Order No: 00003008 and 00003009

Watershed Management Techniques or Actions Addressed Under This Supplement

Analysis (See App. A of the Watershed Management Program EIS): 1.1 Modeling the effect of river channelization; 1.4 Pre-implementation evaluation of proposed enhancements; 1.5 Install grade control structures, 1.8 Bank Protection through vegetation management, 1.13 Culvert removal/replacement to improve fish passage, 1.14 Reduce scour and deposition at hydraulic structures, 2.7 Avoid exotic species, 7.3 Minimize erosion and sedimentation during storm crossing construction; 7.4 Divert water around construction of larger structures; 7.5 Avoid stream crossing outside of construction windows, 7.9 Avoid construction during inclement weather, 7.10 Erosion control and revegetation at the project completion.

Location: Chelan Country, Washington.

Proposed by: Bonneville Power Administration (BPA), and the U.S. Fish and Wildlife Service (USFWS).

- 1. Project 1, Chumstick Creek (North Road) Culvert Fish Barrier Replacement:** During the North Road construction in 1957, the bridge that spanned the Chumstick Creek was replaced with a 10-foot diameter circular steel pipe. In 1996 through 1997 the USDA NRCS and the USFWS performed a stream survey of the Chumstick Creek and found the North Road culvert to be impassable for fish migration. In 1998 a decision was made to replace the existing culvert with a structure that will allow salmonid passage. A structural plate circular pipe would be countersunk and designed to meet the requirements for passage of steelhead, bull trout and spring chinook adults and juveniles.

This project would require in-stream channel work during stream diversion, structure removal, culvert installation and channel restoration. For the new culvert excavation of previously undisturbed soils would be required below the existing culvert. Timing of the project would occur during the construction window, most likely in late summer when flows are low and to protect spawning salmonids, salmonid eggs, in-gravel alevins or salmon fry. Construction of the project is scheduled to begin in late summer of 2001. It will take an estimated 60 working days for completion of this project.

- 2. Project 2, Replace 23 culverts in Chumstick Creek:** The Chumstick Creek Restoration Project is designed to provide passage to 78 square miles of spawning, rearing and overwintering habitat for steelhead, spring chinook and bull trout. The project would improve fish passage and water quality in the private land portion of the Chumstick Watershed. This would be accomplished by replacing 23 undersized and poorly aligned culverts with properly sized bottomless arch culverts.

Culverts would be removed, where possible, and natural channel cross section reestablished. Undersized culverts, which present a barrier to up and/or downstream fish movement due to excessive velocity or height, would be replaced with appropriately sized culverts. Perched culverts would be lowered and set below the natural bed of the stream and installed with a slope approximating that of the stream channel. Misaligned culverts would be excavated and realigned. Artificial structures that impede fish passage would be removed or lowered. Work may entail the use of heavy equipment, power tools, and/or crew.

All disturbed areas would be completely revegetated with native riparian plant species beneficial to fish and wildlife, such as ponderosa pine, black cottonwood, water birch, alder, hawthorn, red-osier dogwood, and several willow species. These plants would provide shade, in-stream large organic diversity recruitment, overhanging cover, leaf litter and other detritus for aquatic food chain development in the project area.

The overall purpose of this project would be to improve fish passage, prevent streambank and roadbed erosion, facilitate natural sediment and wood movement, and eliminate or reduce excess sediment loading. Also to eliminate or reduce dynamic changes in stream flow patterns through culverts that cause streambank erosion, undermining of roadbeds, and the washout of culverts.

Analysis: The two compliance checklists for this project was completed by Chelan Conservation District and Chelan County Public Works Department and meets the standards and guidelines for the Watershed Management Program Environmental Impact Statement (EIS) and Record of Decision (ROD).

Section 7 consultation was initiated with the US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) under the requirements of the Endangered Species Act. Of concern are the potential impacts from the proposed project construction activities to the bald eagle, bull trout, gray wolf, grizzly bear, Canada lynx, northern spotted owl, Ute ladies'-tresses and the upper Columbia River steelhead and Upper Columbia River spring chinook and their critical habitat. A Biological Assessment (BA) was submitted to USFWS on August 17, 2000 and additional information provided on October 30, 2000. A Biological Assessment was submitted to NMFS on August 14, 2000. BPA determined that the effects of the proposed action would not jeopardize the continued existence of Upper Columbia River steelhead and Upper Columbia River spring chinook or result in the adverse modification or destruction of their critical habitat. A Biological Opinion from NMFS was given on January 12, 2001 concurring with the no jeopardy determination, however, some reasonable and prudent measures and terms and conditions were included to minimize take. For the replacement of 23 culverts, the USFWS concurred with BPA's determination of a may affect, but not likely to adversely affect, for the listed species gray wolf, bald eagle, bull trout, grizzly bear, northern spotted owl, Ute ladies-tresses and Canada lynx. For the North Road Culvert Replacement Project, the USFWS

concurred with BPA's finding of a may affect, but not likely to adversely affect, the following species: gray wolf, bald eagle, bull trout, grizzly bear, northern spotted owl, Ute ladies'-tresses, and Canada lynx provided that Best Management Practices outlined in the BA are implemented. USFWS encourages BPA to replace the North Road culvert with either a steel or concrete bridge rather than a new culvert.

A Cultural Resources Survey of the North Road Culvert Replacement Project area was conducted on June 30, 1996 by the USFWS cultural resources team. No historic properties were identified within the project area. A cultural resources survey would be completed prior to construction of any of the 23 culvert replacement projects in the Chumstick Creek Basin. Projects would proceed only if no historic properties are identified within the project area. Any cultural resources found during the survey would be identified and the project would be stopped until the appropriate authorities are contacted.

Findings: The project is generally consistent with Section 7.6 of the Northwest Power Planning Council's Fish and Wildlife Program. The attached Supplement Analysis finds 1) that the proposed actions are substantially consistent with the Watershed Management Program EIS (DOE/EIS-0265) and ROD, and; 2) that there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. Therefore, no further NEPA documentation is required.

/s/ Eric N. Powers

Eric N. Powers
Environmental Project Lead

Concur:

/s/ Thomas C. McKinney

Thomas C. McKinney
NEPA Compliance Officer

DATE: 4/30/2001

Attachment:

NEPA Compliance Checklists (2)
Cultural Resource Survey Report
USFWS Concurrence Letters (2)
NMFS Concurrence Letter

cc:

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