

United States Government

Department of Energy

Bonneville Power Administration

memorandum

DATE: April 2, 2001

REPLY TO
ATTN OF: KEC-4

SUBJECT: Supplement Analysis for the Watershed Management Program EIS, (DOE/EIS-0265/SA-50)

TO: John Baugher - KEWN
Fish and Wildlife Project Manager

Proposed Action:

John Day Watershed Restoration

Project No: 9801800

Work Order No: 00002790

Watershed Management Techniques or Actions Addressed Under This Supplement Analysis (See App. A of the Watershed Management Program EIS):

4.2 Water Measuring Devices; 4.10 Water Conveyance Pipeline;

4.25 Consolidate/Replace Irrigation Diversion Dams; 6.5 Water Supply: Pipeline; 6.10 Access: Fencing.

Location: John Day, Oregon

Proposed by: Bonneville Power Administration (BPA) and the Confederated Tribes of the Warm Springs Reservation of Oregon

Description of the Proposed Action:

Project #1: Paul and Long Creeks provide habitats critical for summer steelhead and resident trout. Historic grazing and channelization activities have reduced the extent of riparian vegetation. A corridor fence to exclude grazing would be constructed along reaches of both streams.

Project #2: Currently, used irrigation water is channeled through either open ditches or ancient wooden drain systems. These channels may be over 50 years old. Open ditches allow water to heat and evaporate while flowing between river and field. When this water is returned to the river, it may cause significant local and downstream warming of the river. The wooden channels are rotting and allow considerable water waste and heating as it leaks and pools on the field.

The proposed project would replace the open and/or collapsed pipes with perforated PVC pipe. The pipes would collect return flows, eliminating pools of standing water in the fields and exposure to thermal loading processes. The result, with respect to water quality, is

lowered return flow temperatures and possibly river temperatures as well. Improved river temperatures may provide localized thermal refugia for aquatic organisms or overall improvement in downstream habitat quality. In addition, it is anticipated that better forage production on the hay meadows will be realized.

Project #3 Galbraith Ditch Diversion, Lower McHaley Ditch Diversion, John Forrest Middle Fork #1 and #2 Diversion: Currently, irrigation flows are diverted from Galbraith, Lower McHaley, Trowbridge, and John Forrest Middle Fork ditches using temporary gravel berms. These diversions are reconstructed annually and as river flows decline during the irrigation season. Building materials are excavated from the riverbed and the dike is left in place following the end of the irrigation season. Subsequent high flows typically wash the dike away, necessitating reconstruction the following irrigation season. The process of dike construction, which periodically requires use of heavy equipment in the river, may be conducted several times per year, causing a gradual lowering of the riverbed. While in place, the diversions can become a partial to total barrier to migrating fish, depending upon river flow condition.

To aid fish passage and improve river and tributary flow, permanent lay-flat diversions are recommended. These structures consist of a concrete wall, with lay-flat stanchions. When the diversion is not in use, it can be lowered for unrestricted fish passage at all river levels. When in use, more efficient headgate control and water measurement promotes legal rate and duty at all flow conditions. Such structures are not prone to damage by periodic high river flows, therefore maintenance is minimal; sediment input is reduced; streambed/streambank degradation ceases; and aquatic and terrestrial system recovery is possible.

Project #4 Coolie Island Diversion, Beaver Dam Ditch, O'Rorke East Side Ditch Diversion, Lane Ditch Diversion: Currently, water for irrigation is diverted using annually installed push-up diversion structures. These diversions are reconstructed annually and as river flows decline during the irrigation season. Building materials are excavated from the riverbed and the dike is left in place following the end of the irrigation season. The process of dike construction, which periodically requires use of heavy equipment in the river, may be conducted several times per year, causing a gradual lowering of the riverbed. While in place, the diversions can become a partial to total barrier to migrating fish, depending upon river flow condition.

The proposed project involves removing the temporary push-up diversions and replacing the open and collapsed pipes with buried, perforated PVC pipe. Removing the push-up diversion allows unrestricted fish passage at all river levels, reduces sediment input, halts streambed/streambank degradation, and allows the aquatic and terrestrial system to recover. The buried, perforated pipes would channel water to fields without placing a physical barrier within the river and prevent loss of water through evaporation or channel leakage. In addition, it is anticipated that better forage production on the fields will be realized.

Project #5 Clausen Pump Station North, Throop Snyder Diversion, Cummings Ditch Reorganization, Trowbridge Ditch Diversion, Southside Diversion, Rudishauser Pump Station, Mullin Pump Station, Mascall Irrigation Reorganization, Smokey Creek Irrigation Reorganization: Currently, water for irrigation is diverted using annually installed push-up diversion structures. These diversions are reconstructed annually and as river flows decline during the irrigation season. Building materials are excavated from the

riverbed and the dike is left in place following the end of the irrigation season. Subsequent high flows typically wash the dike away, necessitating reconstruction following irrigation season. The process of dike construction, which periodically requires use of heavy equipment in the river, may be conducted several times per year, causing a gradual lowering of the riverbed. While in place, the diversions can become a partial to total barrier to migrating fish, depending upon river flow condition.

Water is delivered to the fields via open conveyance systems and/or ancient wooden pipes. In many cases the channels have rotted and collapsed, causing ponding on parts of the fields. Water exposed to direct sunlight and ambient air heats significantly. When this water is returned to the river, it may cause significant local and downstream warming of the river.

The proposed project involves removing the temporary push-up diversions and installing pump stations closer to points of application. Removing the push-up diversion allows unrestricted fish passage at all river levels, reduces sediment input, halts streambed/streambank degradation, and allows the aquatic and terrestrial system to recover. The pump stations enhance efficient water use and measurement. By locating them closer to the point of application, river water stays instream longer, and less is lost to evaporation or leakage through conveyance channels. Many lengths of old conveyance systems may be retired and removed.

Analysis: The compliance checklist for this project was completed by Jennifer Stafford of the Confederated Tribes of the Warm Springs Reservation of Oregon and meets the standards and guidelines for the Watershed Management Program Environmental Impact Statement (EIS) and Record of Decision (ROD).

Steelhead trout and bull trout are the potentially affected listed threatened or endangered species in the vicinity of the project. A Biological Assessment addressing the impacts to Steelhead trout was submitted to NMFS on January 17, 2001. A BA addressing the impacts to bull trout was submitted to USFWS on January 24, 2001. A biological opinion and concurrence from both USFWS and NMFS would be received prior to any instream construction.

Cultural resource surveys would be completed and SHPO compliance documents would be provided prior to any ground disturbing activities.

These projects were considered and reviewed under the Upper John Day River Basin Master Water Plan Working Paper at the request of the John Day Basin Council (which was formed by the government of Grant County). The Bureau of Reclamation (BOR) and cooperators of the plan did a complete public review of this plan. Public review was also completed on individual stream restoration plans, where these projects are also considered, which tier to the Working Paper. Contacts were made through press releases, information brochures and materials, field tours, public meetings, agency coordination meetings, mailing list distributions, and other similar methods.

Findings: The project is generally consistent with the Northwest Power Planning Council's Fish and Wildlife Program. This 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 Powers

Eric N. Powers

Environmental Project Lead

CONCUR: /s/ Thomas J. McKinney DATE: 4-4-2001

Thomas C. McKinney

NEPA Compliance Officer

Attachments:

NEPA Compliance Checklist

cc: (w/attachment)

Jennifer Stafford, Confederated Tribes of the Warm Springs Reservation of Oregon,

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