Northwest Power and Conservation Council

February 9, 2006

MEMORANDUM

TO: Council Members

FROM: Mark Fritsch, Project Implementation Manager

SUBJECT: Funding recommendation for Updated Proposed Action (UPA) habitat proposal - Little Bridge Creek Fence Project

PROPOSED ACTION:

On October 12, 2005 Council staff received five proposals from Bonneville Power Administration addressing the Updated Proposed Action (UPA) for the Federal Columbia River Power System Biological Opinion remand. As you will recall the Council during the January meeting approved two[1] of these five projects. At your meeting in February the Council staff will bring the next project to you and provide an overview of this submittal and discuss the Fish and Wildlife Committee's recommendation for Little Bridge Creek Fence Project.

SIGNIFICANCE:

The Fish and Wildlife Committee recommends that the Council approve Fiscal Year 2006 funds, not to exceed $80,869, for the Updated Proposed Action (UPA) Little Bridge Creek Fence Project as defined in the submittals received from Bonneville on October 12, 2005 and January 5, 2006.

BUDGETARY/ECONOMIC IMPACTS:

Bonneville is requesting $80,869 in Fiscal Year 2006 for this project.[2] There are other projects in implementation in Fiscal Year 2006 in order to help the Action Agencies' meet the metric goals in the Columbia Cascade province. In addition, Bonneville expects to integrate the UPA

[1] Updated Proposed Action (UPA) habitat proposals - Project #2005-004-00 Whitehall Wells and Project #2005-003-00 Entiat 4-Mile Wells.
[2] As part of the FY 2006 recommended Start-of-Year budgets, the Columbia Cascade UPA habitat measures were budgeted at $2,400,000.

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habitat project implementation in Fiscal Year 2007 and beyond with the Council's program as part of the FY 2007 - 2009 selection process.

BACKGROUND:

Bonneville, Bureau of Reclamation (Reclamation), and the U.S. Army Corps of Engineers developed the UPA for their joint operation of the Federal Columbia River Power System (FCRPS). The UPA includes a program to improve the quality of tributary habitat to help provide "off-sets" to the impacts of hydropower operations on the survival of certain listed anadromous species (Evolutionarily Significant Units, or ESUs). Together, the Action Agencies have agreed to address specific limiting factors on the survival of these ESUs in specified areas of their passage, spawning and rearing habitats. The effects of the November 24, 2004 UPA were evaluated in a revised Biological Opinion regarding the FCRPS issued by NOAA Fisheries on November 30, 2004 pursuant to Section 7 of the Endangered Species Act (ESA).

NOAA Fisheries analyses determined that habitat actions addressing limiting factors have the potential to increase the ESU populations. The updated NOAA Fisheries analyses for the Biological Opinion found that a qualitative estimate of improvement is needed for Upper Columbia River spring Chinook and steelhead. To fill part of that gap, Bonneville agreed to help achieve tributary habitat metric goals to improve overall survival for fish in these ESUs during their spawning and rearing life stages. The proposed action to meet these goals focuses on four limiting factors: fish entrainment, instream flow, channel morphology and riparian protection/enhancement. These proposed projects will assist in achieving milestones set forth and described in the tributary habitat action section of the UPA at three- and six-year intervals.

Reclamation provided funds for the planning and design of these projects. Bonneville's strategic approach in Fiscal Year 2005 was to provide cost-share funds for the habitat projects in the Columbia Cascade Province to enable the Action Agencies to achieve the specific metric goals identified in NOAA Fisheries' 2004 Biological Opinion and UPA.

On February 16, 2005 Bonneville presented to the Council a review of the anticipated implementation of the UPA for the Biological Opinion for the Federal Columbia River Power System by the Action Agencies. Bonneville requested that the proposed projects be reviewed by the ISRP.

On October 12, 2005 Council staff received the five proposals from Bonneville (see attached letter) addressing the UPA for the Federal Columbia River Power System Biological Opinion remand. The submittal included not only the three listed habitat proposals (i.e., the Whitehall Wells, Entiat 4-Mile Wells, and Little Bridge Creek Fence proposals), [3] but also included Project #2005-001-00, Estuary RM&E Pilot Project and Project #2003-114-00, Acoustic Tracking for Studying Ocean Survival.

[3] The Whitehall Wells and Entiat 4-Mile Wells proposals were part of the Council decisions regarding funding recommendations for Updated Proposed Action (UPA) habitat proposals at the April and March 2005 meetings. As you may recall, of the eight proposals six eventually were approved, but the remaining two proposals (i.e., Entiat 4-Wells and Whitehall Wells) were not addressed and were dependent on a future submittal and favorable review and recommendation by the ISRP and the Council.

Based on the initial staff review of the five proposals, Project #2003-114-00, Acoustic Tracking for Studying Ocean Survival, was returned due to Bonneville for additional information prior to scientific review. This project was resubmitted on November 7, 2005 and currently is under review by the ISRP.

On November 30, 2005 the ISRP provided its review (ISRP Document 2005-17) of the four remaining proposals. The ISRP found the two well projects fundable, the fencing project partially fundable, and the Estuary RM&E project not fundable.

On December 14, 2005 the Fish and Wildlife Committee recommended funding for the Updated Proposed Action (UPA) Whitehall Wells and Entiat 4-Mile Wells as defined in the submittal received from Bonneville Power Administration on October 12, 2005.[4] It was also recommended that Bonneville provide additional detail and justification regarding the costs associated with the Little Bridge Creek Fence Project before a recommendation could be made. On January 5, 2005 information was received from Bonneville providing the requested information.

At it's January meeting the Fish and Wildlife Committee recommended, after an extensive discussion regarding the cost of the proposal, approving the project with the condition that the sponsor and Bonneville provide a report on the nature of a passage barrier downstream from the project site and plans for passage improvement and additional detail regarding the USDA Forest Service (USFS) planning costs. The Committee asked for that information for the Council's discussion of this funding request at its February meeting. On February 3, 2006 information was received from Bonneville addressing the requested information (see Attachment 1).

ANALYSIS:

The Little Bridge Creek Fence Project will provide Bonneville and Reclamation with a FCRPS BiOp metric credit of 4.8 miles for the riparian enhancement limiting factor.[5] The Little Bridge Creek Fence project will protect approximately 2.7 miles of steelhead spawning habitat by establishing two enclosure areas. This will exclude cattle from stepping on redds and allow the streambanks and riparian vegetation to recover, thereby decreasing sediment delivery to Little Bridge Creek and the Twisp River.

Though the ISRP recommended the Little Bridge Creek Fence Project as "partially fundable," the panel raised costs issues that should have been identified by the Council staff during the initial review. In addition, the ISRP raised concerns regarding the proposal's link to the adopted subbasin plan, but qualified this concern by noting the project will benefit an important spawning site in Little Bridge Creek.

[4] January 2006 Council Agenda Item #1.

[5] Riparian enhancement projects include streambank stabilization and riparian treatments such as fencing or reconstruction. Metric measurement - Number of miles enhanced. Three year metric goal of 6 miles/Six year metric goal of 12 miles.

Bonneville not only address the costs associated with the proposal, but also provide extensive detail in response to ISRP comments.[6] This detail strengthens the link of the proposal to the subbasin plan and enhances the credibility of the proposal because it was the only one of 14 riparian enhancement proposals that was able to meet implementation criteria in the Methow Subbasin. The costs associated with the proposal have been reduced by $44,131 from the original level of $125,000, to $80,869. These savings are principally from the Okanogan Conservation District reducing its overhead and fringe benefits that results in savings of $21,129 and from the US Forest Service providing additional supplies for a savings of $17,060.[7]

On February 3, 2006 Bonneville and the sponsor provided clarification regarding the nature of the passage barrier downstream from the project site and plans for passage improvement. Also, as part of the information the received, additional detail was provided regarding the regarding the USDA Forest Service (USFS) planning costs (see Attachment 1).

Based on the information received from Bonneville, the staff believes that the questions raised by the Fish and Wildlife Committee have been addressed and that the Council can approve the proposal for funding. With this understanding and the metric credits that the proposal provides to the FCRPS Biological Opinion, the staff recommends that the Council approve Fiscal Year 2006 funds, not to exceed $80,869, for the UPA Little Bridge Creek Fence Project as defined in the submittals received from Bonneville on October 12, 2005 and January 5, 2006.

[6] The information received from Bonneville on January 5, 2006

[7] Material cost associated with this proposal totals an estimated $26,790, with $17,060 of the materials provided by the Forest Service.

Attachment 1: Information received from Bonneville Power Administration, on February 3, 2006 regarding the UPA Little Bridge Creek Fence Project.

Little Bridge Creek Fence: Project Sponsor Responses to Council Fish Committee Comments, January 17, 2006

Introduction

This document provides project sponsor responses to comments from the Council Fish Committee on the Little Bridge Creek Fence project. The Little Bridge Creek Fence project will provide BPA and Reclamation with a FCRPS BiOp metric credit of 4.8 for the riparian enhancement limiting factor. The objectives include building approximately 5 miles of fence, one water trough, 300 feet of pipeline and one cattle guard with a bypass gate for cattle management. The Little Bridge Creek Fence project will protect approximately 2.47 miles of steelhead spawning habitat by establishing 2 exclosure areas. Currently, cattle presently access Little Bridge Creek for water and are having detrimental impacts to the stream channel and riparian. The fence will allow the streambanks, gravel bars and riparian vegetation to recover and protect existing functioning riparian areas, thereby decreasing sediment delivery. An additional benefit of the proposed enclosures is that it will allow the range permittees to move cattle more easily and distribute cattle more evenly across the watershed. This will reduce livestock impacts on soils, smaller tributary streams and springs throughout the watershed, which will indirectly benefit aquatic habitat downstream in Little Bridge Creek.

During the January 17, 2006 meeting of the Council's Fish and Wildlife Committee, the Council members requested additional information and clarification on the project. The following information from the project sponsors responds to the comments about the passage barrier in the Little Bridge Creek Culvert (downstream from the proposed fence site). In addition, the Committee had questions regarding the USDA Forest Service (USFS) planning costs. The response provides additional information on these items.

Response

The Little Bridge Creek Culvert is downstream from the planned riparian enhancement area. The culvert is only a partial barrier. Adult steelhead, as well as adult and sub-adult bull trout, can migrate upstream and downstream through the Little Bridge Creek Culvert during spring flows. The adult steelhead spawn in the Little Bridge Creek Fence site. Once the juvenile steelhead emerge from the redds, they are able to safely pass downstream through the Little Bridge Creek culvert and into the Twisp River. Therefore, it makes sense to fund the Little Bridge Creek Fence project prior to replacing the partial barrier culvert because the fence project will immediately provide direct and indirect benefits to Upper Columbia steelhead adults and juveniles, and also non-natal juvenile spring Chinook. The fence will also help establish the riparian buffer to provide additional benefits to other fish species, such as adult spring Chinook, when the culvert is replaced.

The Little Bridge Creek Watershed Restoration Strategy includes prioritizing activities to minimize the impacts to salmonids (Mark Cookson, pers. comm.). For this reason, habitat improvements and fish passage barriers have been addressed by beginning in the headwaters and working toward the mouth of the creek. The USFS, Okanogan County and other cooperators are very committed to salmon recovery in the Little Bridge Creek watershed and have completed numerous habitat improvement projects (Figure 1). In 1999, Okanogan County implemented the Aspen Meadows Ditch Piping project, which replaced a portion of the Aspen Meadows irrigation ditch with pipe to prevent water loss. The Tourangeau Ditch Retirement project abandoned the Tourangeau irrigation canal and installed a well on Little Bridge Creek. In 1996, the USFS fixed, obliterated, closed or performed culvert work on many small roads in Little Bridge Creek (NPPC 2004). In 2001 the USFS replaced the culverts at the #030 and #100 roads with bottomless arch culverts (Jennifer Molesworth, pers. comm.). The Aspen Meadows Diversion was replaced with a roughened channel in 2005. The 030 road culvert, 100 road culvert and Aspen Meadows Diversion now provide year-round fish passage to all fish species at all life stages. The Little Bridge Creek Culvert, at the mouth of the creek, will be the final partial barrier to be corrected. Implementing the Little Bridge Creek Fence (Figure 2) prior to constructing the Little Bridge Creek Culvert will be consistent with the Little Bridge Creek Watershed Restoration Strategy.

The Little Bridge Creek Culvert project will replace the culvert (Figure 3) near the mouth of Little Bridge Creek at the Twisp River Road. The Little Bridge Creek Culvert was proposed for funding several years ago by Okanogan County but was dropped due to county budgetary constraints and issues surrounding the jurisdiction of the culvert. The culvert is under an Okanogan County road which is on National Forest land and there is no easement. The USFS intends to address this with Okanogan County in 2006 and is pursuing funding to design a culvert that will provide year-round fish passage to all fish species at all life stages. It is anticipated that construction should be completed within the next five years. The culvert is currently undersized for the hydrologic conditions and is not passable to all species at all life stages throughout the entire year. The Washington Department of Fish and Wildlife Barrier Inventory protocol considers the Little Bridge Creek Culvert to be a barrier to 6” salmonids and anything smaller (Mark Cookson, pers. comm.). The culvert is level with the channel elevation at the upstream end but has a drop at the downstream end during low flows. Adult steelhead can migrate upstream past the culvert to spawn, and the outmigrating juveniles can easily go

downstream through the culvert and into the Twisp River (Figure 4). In addition, adult and sub-adult bull trout can go upstream and downstream through the culvert during spring flows. The Little Bridge Creek Culvert is sometimes passable to other juvenile fish depending upon the elevation of the culvert outfall, which changes annually due to the Twisp River (Jennifer Molesworth, pers. comm.). When the Twisp River flow conditions are high, there is a connection to the downstream end of the Little Bridge Creek culvert, making it possible for juvenile fish passage upstream and downstream through the culvert. In fact, a number of juvenile fish species use Little Bridge Creek as non-natal rearing habitat (Mark Cookson, pers. comm.). However, when Twisp River flow conditions are low, there is a drop at the culvert outfall that hinders upstream passage through the culvert for juvenile salmonids and other fish. The culvert is a barrier to juvenile fish and adults at certain flows, but replacing the culvert has been a lower priority since steelhead and bull trout can obviously pass through it.

The USFS Planning Costs (18 days x $235/day = $4,230) are based on estimated time that will be spent before the project is completed. Costs for developing the Little Bridge Creek Fence project, include time to:

1. Provide cost estimates, fence specifications, construction narrative and images.
2. Plan the fence design in the office.
3. Check the proposed fence location in the field.
4. Coordinate with other USFS departments (roads, timber, fisheries) to ensure the proposed fence location is not in conflict with other on-going and proposed work.
5. Take staff from Okanogan County Conservation District to the field site to discuss the BiOp minimum criteria, fence design and possible alternatives.
6. Coordinate with the permittees to ensure long-term support for the project.
7. Inform the Range Supervisor, District Ranger and Forest Supervisor about the proposed project and obtain support.
8. Coordinate with Grants and Agreements Department to establish a subcontracting agreement with the Okanogan Conservation District.
9. Coordinate NEPA (Range, Botany, Cultural Resources, Fisheries, Wildlife).
10. Based on the fence design, flag the area where the fence will be constructed.
11. Inspect the quality of the fence during construction to ensure fence specifications are being met.
12. Ensure the fence is built in the location that was specified and facilitate any needed changes in the design plans.
13. Coordinate Monitoring and Evaluation.

The Little Bridge Creek Fence is a well-designed riparian enhancement project that will immediately provide direct and indirect benefits to Upper Columbia steelhead adults and juveniles. Fish and wildlife benefits, including upstream adult passage and downstream juvenile passage, will occur at the Little Bridge Creek Fence project even before the partial barrier culvert is replaced.

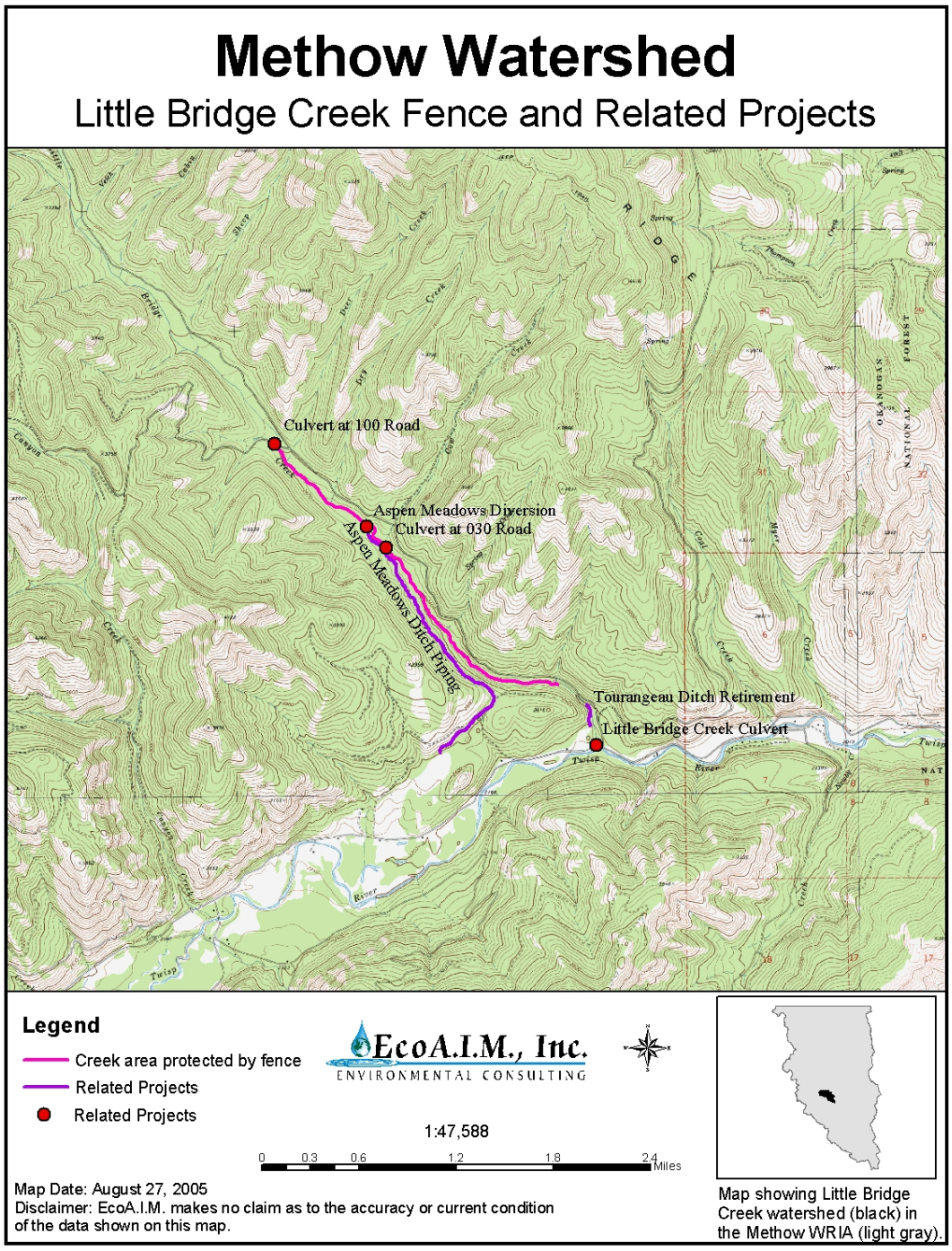

Figure 1. Topographic Map of proposed Little Bridge Creek Fence and Related Projects

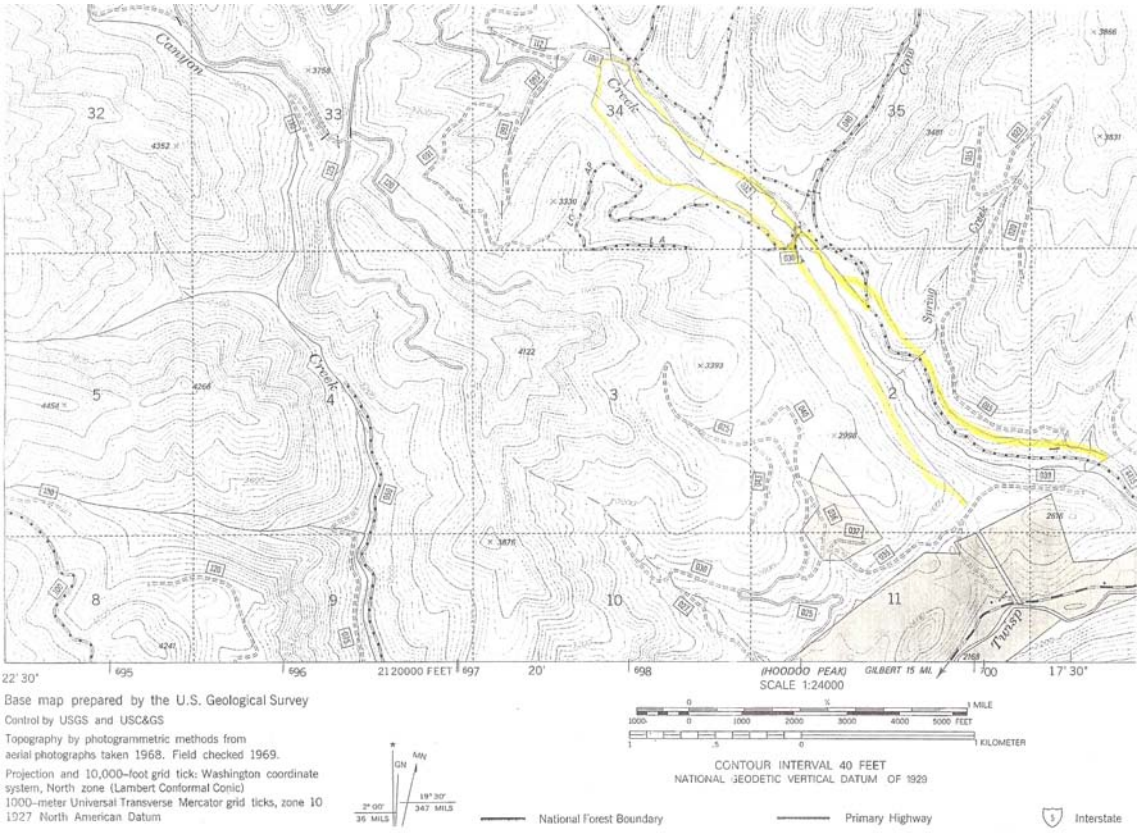

Figure 2. Topographic map with the Little Bridge Creek proposed fence location

Figure 3. Little Bridge Creek Culvert (looking upstream)
Photo taken: June 24, 2005

Figure 4. Little Bridge Creek Culvert and connection to the Twisp River
Photo taken: June 24, 2005

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