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October 3, 2006

Mark Walker
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Northwest Power and Conservation Council
851 SW 6th Avenue, Suite 1100
Portland, OR 97204-1348

Dear Mr. Walker:

This letter represents comments of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) on the Northwest Power and Conservation Council's (Council's) recent Draft 2007-2009 Project Funding Recommendations (Council document 2006-16). This letter includes concerns regarding the Council's decision-making processes, subsequent Fish and Wildlife Program (Program) funding recommendations, and supportive technical comments specific to CTUIR projects. A joint letter from the four Columbia River Treaty Tribes (Umatilla, Warm Springs, Yakama, Nez Perce) with additional comments on programmatic issues will be transmitted separately and is incorporated herein by reference.

General Concerns

The arbitrary funding level of $143 million set by the Bonneville Power Administration (BPA) and endorsed by the Council is not adequate to fully implement the new subbasin plans, the Program itself or the new FCRPS Biological Opinion. Indeed, the subbasin plans were designed to guide funding decisions, rather than being shoe-horned into a predetermined budget package. A significant investment in planning and collaboration is at risk if sufficient funding is not allocated to implement critical projects and subbasin plans.

Under the Northwest Power Act (Act), 16 USC §§ 839-839h, the Council is Congressionally authorized to "review the actions of the Administrator pursuant to this section and section 839d of this title to determine whether such actions are consistent with the plan and programs, the extent to which the plan and programs is being implemented, and to assist the Council in preparing amendments to the plan and programs." 16 USC §8369b(i). Furthermore, the Council has an obligation to develop the Program that is "consistent with the legal rights of appropriate Indian tribes in the region[,]" including Treaty Rights. 16 USC §839b(h)(6)(D).

The Council Decision Memorandum states that the Council is to make project funding recommendations to BPA that protect, mitigate and enhance the fish and wildlife affected by the Columbia hydrosystem and are also consistent with the Council's program. These recommendations are supposed to balance BPA's obligations to ESA-listed and non-ESA-listed fish and wildlife affected by the hydrosystem. In addition, the Council is to strive for a balance between power and fish and wildlife interests. The Council recommendations do not meet these directives for the following reasons:

- The Council adopted a Program funding cap prior to submission and review of project proposals, thereby limiting the ability to objectively recommend a suite of projects that fulfills the intent the Act and their Program.
- The Council's own biological Program objectives are not being met at static Program funding levels. The Program objectives are to stop declines by 2005, restore the widest set of healthy populations in each province by 2012, and return five million adults by 2025. When considering inflation, overall Council funding recommendations have **decreased**.
- The Council does not consider the depressed fish run status in determining the appropriate Program funding level to meet requirements of the Act and the Council's own Program.
- The Council's process seems unlinked and uninformed by other key regional processes such as ESA recovery planning and the BiOp Remand. These processes must be better coordinated and integrated to fill fish recovery gaps in order to meet population viability objectives and avoid the risk of extinction.
- The Council's recommendations demonstrate a severe funding reduction or elimination of tribally sponsored non-ESA projects which represent cornerstone efforts for research and restoration of species such as lamprey and freshwater mussels. These species are now absent in many locations, have high knowledge gaps needing to be addressed, and have a significant likelihood of future ESA listing.
- In 2001, the Council was ready to recommend a Program funding level of $186 million but BPA's "financial crisis" forced continuance of a static funding level. Five years later the Council is still recommending three more years of flat funding even though the funding "crisis" is long gone. BPA is significantly increasing industry subsidies. BPA power rates are among the lowest in the country at 53% below market-based electricity costs. Today it was announced that BPA would cut its wholesale rates by another 3%. When adjusted for inflation, BPA power rates are lower now than they were in 2001 and even lower than rates were as far back as 1940. These facts and the points above indicate an imbalance between power and Fish and Wildlife Program allocations.

BPA has usurped the role of the Council by predetermining the appropriate budget for the Council to meet its obligation to balance fish and wildlife needs against power. The NWPCC has acquiesced to this usurpation, fundamentally contrary to the Act. This approach has resulted in excessive and unnecessary divisions among the sovereigns implementing the Program, undermining achievement of its most basic goals. The process whereby BPA establishes an arbitrary, inadequate budget ceiling for the Council's Program is flawed. The Council should

recommend to BPA the appropriate funding levels necessary to meet the intent of the Act and the Council Program rather than BPA predetermining what their financial obligations are under the Act. This is consistent with the views of the current BPA Administrator, who has told the CTUIR and other tribes, in effect, that the primary initial step is to determine what measures need to be taken to adequately protect impacted species and then to establish the means to implement them.

Insufficient overall funding has also resulted in inadequate implementation of the priority needs identified in the newly completed Council subbasin plans. We are frustrated that after spending $15 million on this planning process, the Council's funding recommendations are now more inconsistent with implementing plan recommendations than was the case before the plans were completed. At the Council's recommended funding levels, it will take well over 50 years to implement the subbasin plans. The Subbasin Plans are part of the Program; if the plans aren't being implemented, then the Program is not being implemented.

The CTUIR encourages the Council to look beyond the BPA-imposed cap on the Program and fully fund and implement a Program that meets the obligations under the Act and addresses the numerous concerns regarding specific projects expressed below.

Project-Specific Concerns

Pacific Lamprey Research and Restoration (1994026000)

The CTUIR strongly objects to the Council's recommended termination of this project. There is no justification for removing what has been the leading Columbia Basin lamprey project. There is also no justification for removing funded tribal involvement in lamprey research and restoration efforts when the tribes have the deepest and most vested concern for this species. Unlike some others in the Basin, we value lamprey as a critical part of our culture, tradition and diet. In addition, the CTUIR was responsible for working with the Council and getting lamprey included in the Program in the first place. We were also responsible for delivering the first status report and gathering together for years what is now the multi-agency Lamprey Technical Workgroup. Lamprey are heavily impacted by the Columbia hydrosystem. This project's accomplishments were recognized in the *Council Quarterly* newsletter and are posted on the Council website as a "Success Story." In addition, this project received a favorable ISRP science review.

The CTUIR's Pacific Lamprey Research and Restoration Project has been instrumental in obtaining and providing much needed information on all life history phases of the Pacific lamprey in the Columbia River Basin. Through field and lab experimentation, the project has successfully restored larval lamprey back into the Umatilla River. Continuation of the Pacific Lamprey Research and Restoration Project is essential for effective conservation and restoration of Pacific lamprey in the Umatilla River. In addition, the project addresses needs outlined in both the Umatilla Subbasin Plan and in provisions of the 2000 Fish and Wildlife Program. The unique adult outplanting efforts, related monitoring, and proposed passage efficiency study as

well as modification of low-head diversions will be implemented in coordination with other subbasins, resulting in broad applications of this project's results throughout the entire region. The research portion of this project deals with evaluation of stress steroids and pheromone attractants for lamprey which will also have broad application for mainstem and tributary programs. The research actions proposed in the 2007 and 2008 portion of this project represent the final stages of a Ph.D. program being carried out by a tribal member at Michigan State University. Defunding this project would terminate this effort about one year prior to its scheduled completion. Termination of the project would cut short past investments and not allow results to be finalized for continued lamprey restoration and evaluation in the Umatilla Basin. It would prevent informing numerous other programs throughout the Columbia Basin where similar restoration efforts are likely needed.

The Umatilla/Willow Subbasin Plan calls for strategies to "Implement the Pacific lamprey restoration plan for the Umatilla Basin" (page 5-40) by conducting the following actions:

- Action 1.1 Continue outplanting of adults as detailed in the Umatilla River Basin Pacific Lamprey Restoration Plan (Close 1999). Action addressed by proposal Objective 5.
- Action 1.2 Determine reproductive success of adult outplants. Action addressed by proposal Objectives 2 & 6.
- Action 1.3 Monitor for increases in larval abundance, juvenile outmigration and adult returns. Action addressed by proposal Objectives 1, 6 & 7.
- Action 1.4 Operate Umatilla Basin Project Phase I pumps to provide instream flows for adult lamprey migration in the Umatilla River below Threemile Dam throughout the summer. Action monitored by proposal Objective 3 and additional passage provided by Objective 4.

The proposed project also directly addresses a number of critical uncertainties ranked by the Columbia River Lamprey Technical Workgroup (CRLTW). Specifically, the continuation of this project will allow us to address the following priority critical uncertainties identified by CRLTW: Lamprey Status, Passage, Population Delineation, Limiting Factor Analysis and Restoration Activities.

Anticipated biological outcomes of the project are to:

1) Estimate the numbers of adult lampreys entering the Umatilla River; assess Umatilla adult lamprey population to track restoration success.
2) Investigate the olfactory cues lamprey use to orient in the Umatilla Subbasin; identify possible migratory and sex pheromones and assess behavioral responses.
3) Monitor passage success to spawning areas; document passage success of adult Pacific lamprey at Umatilla River diversion structures.
4) Develop structures to improve passage success; provide low-elevation ramps at problem Umatilla diversions to allow for adult lamprey passage.
5) Increase larval abundance in the Umatilla River by continuing to outplant adult lamprey; increase adult (up to 500 annually) and larval abundance in Umatilla Basin by continuing reintroduction efforts.

6) Monitor larval population trends in the Umatilla River by conducting electrofishing surveys; obtain estimates of larval populations to document natural production success of outplants.
7) Estimate the numbers of juvenile lampreys migrating out of the Umatilla River; document increased Umatilla larval production by operation of out-migrant traps.

In addition to the above comments, we are attaching an August 15, 2006, letter sent from Antone Minthorn, Chairman of the CTUIR Board of Trustees, to Tom Karier, NWPCC, and Steve Wright, BPA, which urges continuation of funding for the CTUIR Pacific Lamprey and Freshwater Mussel projects. The letter further explains the historic and cultural significance of these species, their current status, hydroelectric impacts, positive scientific reviews, significant project products and benefits to date, ecological benefits (including benefits to salmon) and benefits of continuing this valuable work. The CTUIR has thus far not received any response from the Council regarding this letter.

Freshwater Mussel Research and Restoration (200203700)

The CTUIR Freshwater Mussel Research and Restoration Project is the only one of its kind in the entire Fish and Wildlife Program. Numerous populations are ESA-listed in the mid- and eastern United States but relatively less is known about mussels in the West. Continuation of this project is essential for effective conservation and restoration of freshwater mussels in the Umatilla River. It addresses needs outlined in both the Umatilla Subbasin Plan and the provisions of the Fish and Wildlife Program. Furthermore, the proposed project sampling strategy will be implemented in communication with many other Subbasins, and the results of this project will continue to have implications and utility for the entire Columbia River Basin.

The Freshwater Mussel Research and Restoration Project is consistent with the Umatilla Subbasin Plan strategy to "conduct initial investigations and develop a restoration plan for freshwater shellfish in the Umatilla River (Section 5.3.2.6)." From 2003 to 2006 the project completed significant components of portions of 4 of the 5 recommended strategies and actions for restoring mussels in the Umatilla Basin (pages 5-40, 5-41), including:

- Action 1.1 Conduct qualitative and quantitative surveys to assess shellfish populations.
- Action 1.2 Survey genetic variations within and among Umatilla and selected Columbia River subbasins.
- Action 1.3 Determine macrohabitat and physiochemical factors controlling distribution and abundance of shellfish.
- Action 1.4 Determine the role of fish communities controlling distribution and abundance of shellfish.

The proposed continuation of this project will allow us to complete investigations of genetic variation of freshwater mussels in the Umatilla and other Columbia River subbasins, and will allow us to begin to examine interactions and feedback mechanisms between freshwater mussel populations and native fish species, including how mussels provide ecosystem services for native salmonids. The completion of this information will inform the fifth and final recommended

strategy listed in the Subbasin plan: "Action 1.5 Develop and implement recovery plan for shellfish in the Umatilla Basin."(p. 5-41).

Freshwater mussels are designated in the Subbasin Plan as "Species Designated by Columbia Plateau Tribes as Having Cultural or Religious Values" (Section 3.2.1.4). Mussels were historically an important subsistence food resource for Native Americans throughout the Columbia Basin, including within the Umatilla/Willow Subbasin (Ray 1942, Lyman 1984). Freshwater mussels are noted in the Subbasin Plan as "Species Designated as Threatened, Endangered or Sensitive" (Section 3.2.1.1), "Species Recognized as Rare or Significant to the Local Area" (Section 3.2.1.2), and a "Locally Extirpated and Introduced Species (Section 3.2.1.5).

Anticipated biological outcomes of this project are to:

- Assess the patterns of genetic diversity in freshwater mussels of the Columbia Basin with respect to other western drainages.
- Understand the host fish requirements for the three genera of western freshwater mussels.
- Examine rates of key physiological processes in freshwater mussels in the Columbia River Basin.
- Determine the suitability of restocking the extirpated western pearlshell, *Margaritifera falcata*, in the Umatilla River through translocation experiments.
- Characterize the demographic and phylogeographic histories of freshwater mussels of the Columbia River Basin.
- Determine the current and historic distribution of freshwater mussels in the Columbia Basin Plateau.

The attached letter referenced above further explains the accomplishments and benefits of continuing the freshwater mussel project.

Walla Walla Juvenile and Adult Passage Improvements (199601100)

Two major irrigation diversion screens in the mainstem Walla Walla River (Old Lowden and Bergevin-Williams) need to be upgraded or replaced in order to stop the loss of salmon and steelhead smolts that currently occurs at these sites. Passage concerns at these two diversions would not be fully addressed at the reduced project budget level proposed by the Council.

In the May 2004 version of the Walla Walla Subbasin Plan, the Old Lowden and Bergevin-Williams ditches are listed imminent threats under section 7.3.1 "Management Plan - Aquatic Strategies - Imminent Threats and Passage Barriers" (pages 147-151). These two diversions are also referenced in the Final Addendum of the Walla Walla Subbasin Plan (Nov 2004). These are the last two major passage threats located in the mid-mainstem Walla Walla River and are described as "sites of significant water withdrawals along the reach without having screening or screening believed to be effective."

In addition, there are numerous other obstructions and fish screen/diversion sites identified in Section 7.3.1 and Table 7-4 which this project could supply cost share funding for addressing if fully funded at the requested amount. In the Final Addendum of the Walla Walla Subbasin Plan, Section 1.3 "Strategic Project Prioritization Framework" (pages 9-10) states that adult passage obstructions and inadequately screened water diversions are described as top priority imminent threats to aquatic focal species in the Walla Walla Basin. These passage threats are located in stream reaches which pass fish to or through priority geographic areas as identified by the Walla Walla Subbasin EDT model. This project would protect and enhance production from those priority areas. Imminent threats associated with priority geographic areas are described as the highest priority projects in the Walla Walla Subbasin Plan.

The CTUIR urges the Council to fully fund this project as proposed. To assist in this effort CTUIR staff have been working with others to identify project costs which could be capitalized by BPA, thus freeing up more "expense" money in the Walla Walla subbasin to apply to several under-funded projects. We ask that the Council assist us in this effort and recommend these changes to BPA.

Walla Walla Collaborative Salmonid M&E (20003900)

This project is the main monitoring and evaluation effort for salmonid restoration in the Walla Walla subasin. Adequate funding must be provided to monitor the major changes which have occurred in the Walla Walla subbasin over the last few years. For the first time in about a century there is new water, new fish passage, and salmon present. In addition, it is critical to continue monitoring of listed steelhead and bull trout. This project combines the once-separate CTUIR and WDFW M&E projects to create a more collaborative and efficient effort. The Council's recommended funding level seems to acknowledge the CTUIR component but apparently does not recognize the Washington portion of the project that is now combined in this proposal. We recommend that the Council increase the funding recommendation for this project to adequately cover both components as requested by the sponsors.

This proposal adopts the general guidelines for integrated RM&E presented by the Federal Caucus, the Columbia Basin Pilot Projects, PNAMP, and CSMEP, WCMS, the Oregon Plan and the SRSRP. Some of these processes have been reviewed intensively by the ISRP (ISRP 2004, 2005b, ISRP and ISAB 2005). This project is also in accordance with the most recent Program that lists research and monitoring as the ninth strategy for recovery in the Basinwide Provisions (Section III, NWPPC 2000).

The Walla Walla Subbasin Plan (2005) describes the measurements of abundance, productivity, spatial structure, and diversity that are needed to: 1) describe status and trends; 2) evaluate project/program performance; and 3) facilitate continued prescriptive and predictive modeling and updates to the Walla Walla Subbasin Plan. The priority elements of these recommendations are essentially the Biological Objectives and Work Elements of this proposal. The data gathered by this proposed project will more effectively answer numerous questions and meet requirements outlined in the Program, the ESA, Washington's Wild Salmonid Policy (1997), and the Walla

Walla River Basin Hatchery Master Plan (2004). Funding of this collaborative proposal seems a logical extension of work already begun within the basin by CTUIR and WDFW.

The objectives and tasks detailed in this proposal are well supported by the recommendations of the ISRP (ISRP 2004, 2005b, ISRP and ISAB 2005, and ISRP 2006), and a parallel adaptation of the standardized methods under employment in the John Day and Wenatchee Pilot Project being conducted by state and federal science programs. This project considers the proposed effort to study adult and juvenile salmonids to be a natural extension of the Pilot Project, and the priority RM&E project in the Walla Walla Subbasin. The objectives of this proposal were prioritized in the Walla Walla Subbasin Plan, and are a critical component of the developing Salmon Recovery Plans.

Anticipated biological outcomes by project objectives are to:

- Collect and revise Viable Salmonid Parameters.
- Assess and detect changes in status and trends in abundance and spatial structure of summer steelhead, spring Chinook, bull trout, and mountain whitefish in the Walla Walla River Subbasin throughout their life history.
- Assess salmonid productivity in the Walla Walla Subbasin.
- Assess salmonid life history diversity in the Walla Walla Subbasin.
- Evaluate program effectiveness, including habitat and hatchery effects on natural production in space and time.
- Support the Walla Walla Technical Work Group and Science Program.
- Coordinate and administer the Walla Walla RM&E program.
- Report and disseminate findings.

The various local subbasin project review teams and forums (Walla Walla Watershed Council and the Snake River Salmon Recovery Board) placed a very high funding priority on this project in order to track the success of the many water and fish restoration efforts throughout the subbasin.

Walla Walla Fish Habitat Enhancement (199604601)

The CTUIR strongly objects to the Council's recommended zero funding for this project. This project is a priority base habitat enhancement effort in the Walla Walla subbasin and targets stream improvements that are consistent with subbasin plan priorities. The project has been ongoing for about ten years and has numerous completed stream projects which require maintenance commitments to maximize fisheries benefits from initial investments.

The South Fork of the Walla Walla River is identified as "priority" for restoration and protection in the Walla Walla Subbasin Plan (page 59). Out of 26 priority areas in the basin, the South Fork of the Walla Walla River ranked number 3 in "restoration" potential for spring Chinook and number 7 for summer steelhead (Tables 3-2 and 3-4). The EDT predictions for "protection benefit" ranked the South Fork of the Walla Walla (mouth to Elbow Creek which includes the

proposed project areas) as number 1 for spring Chinook and summer steelhead. Proposed work includes riparian and upland restoration and instream aquatic habitat enhancement.

The South Fork of the Touchet River is identified as "priority" for restoration and protection in the Walla Walla Subbasin Plan (page 59). The South Fork of the Touchet was ranked 12 out of 47 priority reaches for restoration potential for summer steelhead and 15th for spring Chinook. The same reach was ranked 10th for protection of summer steelhead and 3rd for spring Chinook. All work will be conducted on approximately 8,000 acres owned by the CTUIR in the upper reaches of the South Fork of the Touchet River. This area is within the Rainwater Wildlife Area and includes approximately 8 miles of river habitat. Proposed work includes the addition of approximately 400 whole trees to the channel and floodplain and the obliteration and reclamation of approximately 3 miles of road bed located in the riparian area.

Limiting factors common to both priority reaches are embeddedness, lack of large woody debris, lack of pools, riparian function, channel confinement, high water temperatures, bedscour and summer flow.

Anticipated biological outcomes include improved spawning and rearing conditions and thus higher survival of juvenile summer steelhead, spring Chinook, and bull trout. Proposed work will increase the survival of adult and juvenile fish in the Walla Walla Basin. Various native tree and shrub species will also be enhanced as a result of these activities.

GEOGRAPHIC AREA (GA)	PROPOSED RESTORATION ACTIVITY	MEASURABLE BIOLOGICAL OUTCOMES
South Fork Walla Walla River-46 acres owned by the CTUIR	Upland restoration	Several thousands native trees and shrubs will be re-introduced into 13 acres of former riparian and upland habitat on the South Fork of the Walla Walla River. This effort will result in improved stream channel stability, thermal cover for birds and mammals, channel shading, insect drop, and enhanced spawning and rearing potential for juvenile and adult summer steelhead, bull trout, and spring Chinook over approximately ½ mile of the South Fork of the Walla Walla River.
South Fork Walla Walla River – McCain/Lampson/Kentch	Instream habitat enhancement	Landowner permission has been secured for this work. A total of 10 cross-vane boulder structures, 12 J-hook boulder vanes, and 14 root wad bank installations over a distance of 2.5 stream miles on the South Fork of the Walla Walla River. EDT analysis suggests that an increase in channel complexity in this stream reach will result in higher adult and juvenile utilization, spawning opportunities, and production for summer steelhead, bull trout, and spring Chinook.
South Fork Touchet River-8,000 acres owned by the CTUIR	Whole conifer tree additions	A total of 400 whole conifer trees over 7 miles of stream will be placed in the South Fork of the Touchet River. These enhancements will increase habitat complexity for summer steelhead and to a lesser extent bull trout. EDT analysis suggests these efforts will result in a capacity of almost 3,000 juveniles.
South Fork Touchet - River8,000 acres owned by the CTUIR	Obliteration of riparian roads	Three miles of draw bottom road will be removed during the funding cycle. This effort will substantially reduce stream sediment input, impact to spawning gravels, and disturbance of native fishes. Ultimately this will result in the restoration of a naturally functioning floodplain and riparian corridor and higher survival and production of rearing juvenile salmonid fishes, particularly summer steelhead.

The CTUIR urges the Council to fully fund this project as proposed. To assist in this effort CTUIR staff have been working with others to identify Walla Walla project costs which could be capitalized by BPA, thus freeing up more "expense" money to apply to several under-funded projects in the Walla Walla subbasin. We ask that the Council assist us in this effort and recommend these changes to BPA.

Walla Walla Fish Passage Operations (200003800)

The CTUIR strongly objects to the Council's recommended zero funding for the Walla Walla Fish Passage Operations (WWFPO) project. This project is a priority base program effort involving both CTUIR and ODFW in coordination with irrigation districts that perform mechanical O&M on passage facilities. The primary project objective is to ensure that the previous investments of numerous BPA-funded ladder and screen projects in the Walla Walla are operated in a manner consistent with fish passage criteria for the maximum fish benefit to salmon and steelhead.

The WWFPO project has four priority tasks: 1) monitor flow and channel conditions; 2) monitor and coordinate operation of fish passage facilities; 3) enumerate fish runs at Nursery Bridge Dam; and 4) provide technical input on construction of fish passage facilities in the basin. Under priority task #1, WWFPO provides on-the-ground observation of river and passage conditions. The project through the years has identified many long-term and seasonal passage concerns and has been the impetus for getting these issues addressed. If the project was not funded, then many passage constraints would go unidentified and unaddressed. For priority task #2, the project works in conjunction with the Passage Facility O&M crew (separate project #200721700) to ensure that passage facilities are being operated in the best manner for fish. The WWFPO provides the biological oversight to the O&M crew which basically ensures that the facilities are mechanically operational. If the project was not funded, then the passage facilities in many cases would not be operated under NOAA biological criteria, limiting their effectiveness. Priority task #3 is to enumerate salmon, steelhead and bull trout adult migration at Nursery Bridge Dam. If the project lost funding, then this valuable population data would no longer be available for fish managers and recovery planning. For priority task #4, the project provides technical experience in design, construction, and operation of fish passage facilities. If the project lost funding, then this wealth of knowledge would be unavailable for passage facility development which would likely lead to the construction of less effective facilities.

The CTUIR urges the Council to fully fund this project as proposed. To assist in this effort CTUIR staff have been working with others to identify Walla Walla project costs which could be capitalized by BPA, thus freeing up more "expense" money to apply to several under-funded projects in the Walla Walla subbasin. We ask that the Council assist us in this effort and recommend these changes to BPA.

Walla Walla Hatchery Three-Step Planning Process (200003800)

The Council has recommended no funding to continue planning of the Walla Walla Hatchery project, a cornerstone component in the overall salmon restoration program in the Walla Walla subbasin. This decision is inconsistent with the Council's own stated process and also inconsistent with the programmatic recommendations of the ISRP. In the Council's September 15, 2006, Decision Memorandum, it states that "the Council decided (in 2001) that it made sense to continue the three-step process sequence for all new production projects proposed under the

Program." This document also states that "the staff recommends the Council continue to employ the three-step review process for new artificial production and other major projects." The ISRP programmatic review of FY 2007-2009 proposals states that "the ISPR recommends that the Council rely on the three-step process for the ISRP's substantive review of artificial production projects."

The ISRP's specific project recommendation of "not fundable" was obviously the result of a non-substantive review since the reviewer demonstrated a lack of fundamental knowledge about the proposal, the completed Master Plan and the status of salmon in the Walla Walla subbasin. Even though it was clearly stated in all documents that salmon were extirpated in the Walla Walla (the native stock is no longer there to protect or utilize for broodstock), the ISRP reviewer still made the following statements: "If native stocks of Walla Walla salmonids are to be restored and protected, this proposal is not fundable. . . . Wild production should be able to rebuild naturally . . . why would hatchery fish do any better? . . . Replacement of wild fish by hatchery fish is the likely outcome of this proposed action—a result that is contrary to subbasin goals." The CTUIR suggests that the Council disregard the misinformed project review comments from the ISRP and fund the three-step review, the process that was designed to provide a more comprehensive review of the proposal and related issues.

The CTUIR submitted the Walla Walla Hatchery Master Plan to the Council in December, 2005. The Council has done nothing with it to date and apparently the plan is to ignore it for another three years. A decision not to fund this request to complete the Council's own production project planning requirements would result in at least a four year delay (2006-2009) from the time the Master Plan was received by the Council. These delays would be inconsistent with the Council staff recommendation in the Decision Memorandum which states, "[t]he staff also recommend that a new and heightened emphasis be put on timely delivery of step products . . . to put an end to projects languishing within the process." We realize that it took CTUIR many years to deliver the Walla Walla Hatchery Master Plan since the hatchery proposal was first presented. The delay in this case was due to the need to complete structural fish passage improvements and instream flow enhancements thereby providing fish passage conditions that would not render the hatchery proposal premature. In any case, this justified delay should not in any way be used against the project or be used to justify more project delays.

Artificial propagation is a key element in the comprehensive Walla Walla fisheries restoration program and is required in order to achieve spring Chinook natural production, broodstock, and harvest objectives outlined in the Walla Walla Subbasin Summary (CTUIR et al., 2001) and Walla Walla Subbasin Plan (Walla Walla Watershed Planning Unit and Walla Walla Basin Watershed Council 2004). Strategy 6 in the Walla Walla Subbasin Summary specifically identifies actions directly related to this hatchery proposal. Action 6.1 calls for construction of a spring Chinook hatchery and acclimation facilities. Action 6.3 calls for completion of appropriate pre-construction hatchery planning as per NWPCC and other processes. In addition, Section 7.3.8 of the Walla Walla Subbasin Plan recognizes that other enhancement efforts including artificial propagation will be needed to meet the subbasin numeric objectives. This proposal for hatchery production for the Walla Walla River was also identified in the 1994

Council Fish and Wildlife Program under Section 7.4.L as well as every other Walla Walla subbasin restoration planning document that has been developed.

Facilities constructed under this project will be an essential part of the comprehensive Walla Walla River fish restoration plans developed by CTUIR, ODFW and WDFW in cooperation with the Council, BPA, US Army COE, Bureau of Reclamation (BOR), NMFS, and various irrigation districts and private landowners. The project will increase smolt production and will directly increase returns and survival of salmon to the upper Columbia River Basin which is consistent with the Council's Fish and Wildlife Program, *U.S. vs. Oregon*, Columbia River Fisheries Management Plan, and the Pacific Salmon Treaty. The planning of Walla Walla Hatchery for spring Chinook (this project) is specifically included in the three-year *U.S. vs. Oregon* agreement and therefore supported by the state, federal and tribal entities who are a party to this agreement. The CTUIR requests that the Council acknowledge this support.

The CTUIR urges the Council to fully fund this project as proposed. To assist in this effort CTUIR staff have been working with others to identify Walla Walla project costs which could be capitalized by BPA, thus freeing up more "expense" money to apply to several under-funded projects in the Walla Walla subbasin. Some of this project could likely qualify as capital expenditures (final design) but other costs would be classified as expense. We ask that the Council assist us in this effort and recommend these changes to BPA.

North Fork John Day Fish Habitat Enhancement (200003100)

By recommending this project be terminated, the Council is not following its own process. The subbasin plan emphasizes that habitat enhancement is the highest priority for the John Day subbasin. Actions addressed by this project are also listed as priorities in the subbasin plan. The project received high recommendations from the John Day Subbasin team and the ISRP science review recommendation was "fundable."
CTUIR is pleased that approximately $1 million is apparently being restored to John Day Subbasin expense projects due to recent changes in BPA's capitalization process. However, we were very disappointed that the Council did not coordinate with the local subbasin team in allocating funds back to projects as listed in the draft Program recommendations. The Council had asked this team for recommendations on project reviews and rankings but apparently decided to act on its own in this case without much regard to the ranking table and process on which we we all worked so hard.

The table below shows the current Council recommendations (with the percentage of FY2006 funding level) and project ranking by the local team. Please note that the Council is recommending to revive three Conservation Area Management projects to 129-144% of last year's levels and revive the M&E project (rank #13) to 89% of last year while still leaving two high ranking (#6 and #7) fish habitat enhancement projects unfunded. As our priority position, CTUIR supports funding all these priority projects at 2006 levels at a minimum. If that cannot be done, we recommend funding as indicated in the last column. This will provide better equity in allocating

the scarce funding across various projects and allow better consistency with the John Day local subbasin team recommendations.

More equitable funding proposal for John Day Subbasin projects receiving reallocated money from the project capitalization process.

Project No.	Abbreviated Project Title	Sponsor	Local Team Rank	FY 2006	FY 07-09 Funding Recommendations (per yr)	
					NPCC (% of '06)	Equitable/1 (% of '06)
199801600	Salmonid M&E in JD Subbasin	ODFW	13	$900,083	$800,000 (89%)	$545,740 (60.6%)
199802200	Pine Cr. Wildlife Conserv. Area	CTWSRO	8	$162,740	$210,000 (129%)	$162,740 (100%)
200001500	Oxbow Conserv. Area Mgmt	CTWSRO	4	$139,070	$200,070 (144%)	$139,070 (100%)
200104101	Forrest Conserv. Area Mgmt.	CTWSRO	5	$146,635	$206,635 (141%)	$146,635 (100%)
200003100	N Fk JD Habitat Enh.	CTUIR	6	$248,968	$0 (0%)	$150,955 (60.6%)
198402100	Mainstem/M Fk Hab. Enh.	ODFW	7	$447,889	$0 (0%)	$271,565 (60.6%)
			Totals	$2,045,385	$1,416,705 (69%)	$1,416,705 (69%)

CTUIR has nothing against projects where less money is proposed. These are good projects and need to be funded. However, if the Council does hold tight to its current total budget recommendation, it makes no sense to "over-fund" some projects at the expense of other priority projects. We favor advancing an equitable package of the highest ranked projects, keeping as many alive as possible. We recognize that the conservation area projects are important and we are recommending they be funded higher than the others (at 100% of last year). We realize that M&E is vital for ESA viability monitoring of steelhead but feel that $.5 million should be enough to get it done. We also think it would be a huge mistake to drop fish habitat enhancement in the mainstem, Middle Fork and North Fork. These two projects represent nearly 175 stream miles of improvements completed (with O&M commitments) and/or planned. Instead of stopping projects then reviving them at an unknown time (while losing staff and landowner commitments), these valuable habitat enhancement projects in the John Day wild fish management and habitat-emphasized subbasin should remain funded.

The CTUIR project is consistent with Chapters III and V of the 2000 Program; Sections 7.6 – 7.8 of the 1994 Program; Appendix A of BPA's 1997 Watershed Management Program EIS; Volume 1, pp. 5b-12 through 5B-14, and Volume 2, p. 44, of CRITFC's 1995 Wy-Kan-Ush-Mi Wa-Kish-Wit: Spirit of the Salmon plan; and habitat objectives and restoration strategies in the subbasin plan (pp. 245 – 246). Spring Chinook salmon and summer steelhead are the primary focal species this proposal will benefit. Both species have been delineated as wild MCR ESU populations within the NFJD Basin by NOAA. Summer steelhead are listed as "threatened" under the ESA. The project will implement improvements in the Desolation, Granite, Upper Camas and Lower Camas Creek Geographic Areas (GAs), which are ranked among the five highest priority GAs for aquatic habitat restoration in the subbasin plan (Table 72., p. 250). The project will address limiting factors, identified in the subbasin plan, including channel stability, flows, habitat diversity/key habitat, obstruction, oxygen, sediment load (pp. 243-44), wetland habitat (pp. 303-4), and aspen (pp. 307-8). The project will implement the five highest ranking strategies in the plan (with the exception of fish screens), including protecting existing habitat, improving passage and riparian habitat, in-stream activities, upland restoration, and education and outreach (Table 73., p 250). This project is the only project implementing habitat

enhancements on private properties within the upper North Fork John Day drainage. The project provides a critical link to achievement of the overall biological and habitat objectives indicated in the subbasin plan. Many miles of degraded habitat remain to be addressed within the upper basin along with protection of critical headwater sanctuaries on public lands.

Measurable Biological Outcomes:

GEOGRAPHIC AREA (GA)	PROPOSED RESTORATION ACTIVITY	MEASURABLE BIOLOGICAL OUTCOMES
Desolation Creek	Removal/replacement of 2 culverts.	Improved access to 1 miles of spawning and 2 miles of summer rearing habitat for summer steelhead in North Fork Desolation Creek.
Desolation Creek	Placement of log jams.	Increased spawning opportunities, habitat complexity and cover for juvenile and adult spring Chinook salmon and summer steelhead over 6 stream miles.
Granite Creek	Removal of mine tailings.	Increased habitat diversity, off-channel refugia, riparian vegetation and associated shade and increased spawning and rearing habitat for spring Chinook salmon and summer steelhead in a 3,800-foot reach of Clear Creek.
Granite Creek	Removal/replacement of 2 culverts.	Improved access to 26.1 miles of spawning and rearing habitat for spring Chinook salmon and summer steelhead in Granite and Clear Creeks.
Upper Camas Creek	Placement of log jams.	Increased spawning for summer steelhead and habitat complexity and cover for juvenile spring Chinook salmon and summer steelhead over 5 stream miles in Hidaway Creek.
Upper Camas Creek	Construction of riparian exclusion fencing.	Improved stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat; increased pool habitat, thermal cover for mammals, channel shading, and native plant recovery and succession for adult summer steelhead and juvenile spring Chinook salmon and summer steelhead over 5 stream miles in Hidaway Creek.
Upper Camas Creek	Development of 5 off-stream, upland livestock watering sites.	Better distribution of livestock in upland areas improving grazing management; improved stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat; increased pool habitat, thermal cover for mammals, channel shading, and native plant recovery and succession for adult summer steelhead and juvenile spring Chinook salmon and summer steelhead over approximately five stream miles.
Upper Camas Creek	Pool development.	Increased spawning opportunities for spring Chinook salmon in Camas Creek; improved habitat complexity and cover for juvenile and adult spring Chinook salmon and summer steelhead over several hundred yard stream reach.
Lower Camas Creek	Construction of riparian exclusion fencing, combined with riparian plantings.	Improved stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat; increased pool habitat, thermal cover for mammals, channel shading, and native plant recovery and succession for juvenile and adult summer steelhead over approximately 2.2 stream miles of lower Cooper and Snipe Creeks.
Lower Camas Creek	Development of 3 off-stream watering sites.	Improved grazing management; improved stream channel stability, width to depth ratios, quality and quantity of spawning areas, off-channel habitat; increased pool habitat, thermal cover for mammals, channel shading, and native plant recovery and succession for juvenile adult summer steelhead over approximately 2.2 stream miles of lower Cooper and Snipe Creeks.
Lower Camas Creek	Pool development.	Increased spawning for spring Chinook in Camas Creek; improved habitat complexity and cover for juvenile and adult spring Chinook salmon and summer steelhead over a several hundred yard stream reach.

Develop Progeny Marker for Salmonids to Evaluate Supplementation (200203000)

The Council has recommended a funding level for this project which is not adequate for applying the technique to evaluate hatchery supplementation. The Council may have not recognized that the project scope changed from developing the progeny marker technique to applying it in a study beginning in 2007. The latter will require increased funding.

This work is an essential component of the current supplementation evaluation effort guided by BPA, the Council, ISAB, ISRP, and CBFWA. The project was designed to develop a tool for supplementation evaluation in systems where a pedigree analysis is not practical or not affordable. Project staff will complete the laboratory development phase of the work as of March 31, 2007. Beginning with the 2007 run of summer steelhead to the Umatilla River, the project will engage in field testing of the progeny mark, which uses Strontium-Chloride injections to permanently mark the progeny of hatchery-reared female summer steelhead spawning in the wild.

A funding increase and out-year objectives were requested for the project, reviewed, and approved as fundable by the ISRP, and ranked "High Priority" by the Mainstem-Systemwide Review Team, with reference that the overall objectives of the work are "Core Program." The increase in funding is needed because to be successful, and to implement the Council's/BPA continued and ongoing supplementation evaluation experiment, the project must:

1) engage in field deployment of the progeny mark
2) continue the current level of laboratory analysis for assessing marks of new specimens
3) engage in a QA/QC test of the tool using pedigree analysis

#1 and #3 above were described and reviewed under Objective 1 of the project proposal for 2007-2009 work. In addition, these tasks were discussed and reviewed by BPA as out-year tasks under 2003-2005 project SOWs. Hence, the expectation of project staff and reviewers has been that it would incur an increased work-load and corresponding fiscal needs beginning with field deployment under the ongoing project objectives.

The additional cost for #1 (Work Elements 1.1-1.3 and 1.5) is approximately $96,000 annually. To keep project costs in line with the Mainstem-Systemwide budget, the project sponsors agreed to hold genetic samples for analysis during out-years beginning in 2010, deferring an additional increase in funding of $35-60,000 annually associated with #3 (Work Element 1.4) to a future review and funding cycle. The reduced annual budget of $273,000 was put forth by the Mainstem System Review Team (MSRT) as a minimum increase in funding that was considered High Priority by the Co-Managers, and which contributed to a Core Program element; i.e., the evaluation of supplementation programs in the Umatilla and beyond. It was assumed that the Council would support either the reduced budget of 273K, or that sufficient funding would be found to fully fund the project activities beginning in 2007.

We firmly believe it would be impractical to accomplish the Council's program objectives, under the guidance of the ISAB, with the current recommended funding level for this project. We request that the Council modify its project recommendations for this work by bringing the recommended budget in line with the MSRT's request. Given the importance of this work and the positive reviews it has received, we see no justification for not supporting the project sponsors, the co-managers, and the Council's program itself by hampering its success via unjustified fiscal constraints. Any additional or future concerns by the Council about the project

can be dealt with in the supplementation evaluation review group established under the recommendations of the ISAB which is being facilitated by CRITFC.

Next Steps in Subbasin Planning: Umatilla Subbasin Pilot Project (200719800)

This project is recommended for zero funding by the Council. The overall intent of the project was to better prepare the Council for the next round of planning by developing an improved integrated modeling tool that immediately followed up on the shortcomings identified in the last round of planning. Instead of reinventing a new planning tool as planning proceeds (as has often been the case in the past), this project would allow an improved and coordinated tool to be ready when the Council needed it. In addition, with the Council suggesting that the Umatilla subbasin be the next location for continued planning, development of this tool using Umatilla data as a pilot project makes even more sense.

This project would fulfill requests for integrated modeling that were clearly stated in the Umatilla Subbasin Plan and Comprehensive Monitoring and Evaluation Plan for Chinook and Steelhead (Schwartz and Cameron 2005). In theory this pilot project would lead to the establishment and charter of a Columbia River Collaborative modeling program (CRiCo), following review by the agencies and authorities. This effort would be integrated with PNAMP, CSMEP, and NED to facilitate effective subbasin assessments through collaborative, pro-active, and technically sound modeling of Columbia Basin fishes and their ecosystems.

Anticipated biological outcomes by project objectives are to:

- Create a conduit between data collection, the Northwest Environmental Data system, and the agencies' and authorities' modeling programs.
- Initiate a sustainable Basin-Wide collaborative subbasin assessment modeling process among the agencies' and authorities' science programs through cooperative revision of the Ecosystem Diagnosis and Treatment framework as was requested in the Umatilla and Walla Walla Subbasin Plans.
- Prepare the Umatilla management system for planned revisions to the subbasin plan and future subbasin assessments.

Please see the attached August 3, 2006, memorandum from the CTUIR Fisheries RM&E Program Supervisor that provides more elaboration on the need for and benefits of this proposed project.

Multi-scale Assessment of Hyporheic Flow, Temperature, and Fish distribution in Columbia River Tributaries (200725200)

Due to the positive results and broad application of previous CTUIR hyporheic flow studies funded by BPA and others, we urge the Council to reconsider the zero funding recommendation for this project.

Increasingly, over the past decade, the CTUIR has maintained a program to better understand and restore alluvial floodplains. To this end, the CTUIR has successfully cooperated with a large array of federal, state, local and tribal governments, multiple private landowners, non-profit organizations, universities and citizen groups. The resulting efforts have produced new knowledge in several forms, published peer-reviewed papers, increased monitoring of surface/ground water interactions and regulatory efforts to address complex hydrologic interactions of floodplains.

This project continues a history of bridging water quality and habitat assessments through a variety of cooperating partners:

- In 2001 the CTUIR began work on an Innovative Project that developed that basis for this analysis on the Umatilla River.
- In 2001 the CTUIR started work on the NASA-supported Data Rich Decision Support Environment (DRDiSE). This effort increased the effective use of remote sensing and numeric modeling of surface/ground water interactions.
- In 2003 the CTUIR completed a Temperature TMDL for EPA Region 10 that included an alluvial groundwater component.
- In 2005 we completed an EPA pesticide project. This project examined surface and hyporheic influence on geochemistry and hydrology of a highly productive springbrook (Minthorn Spring) on the Umatilla River.

This new knowledge is currently being used on the ground in the Umatilla Basin. Geomorphic restoration of Meacham Creek is a project that has combined support of EPA, BPA, USDA and NASA to improve the functional conditional of this stream. Specifically, improvements in channel form, temperature regime, macroinvertebrate diversity and abundance and salmonid habitat are expected. The restoration design and monitoring effort for the Meacham Creek project benefited from the ongoing work on surface/ground water dynamics.

This proposal has strong support from the ISRP, which stated that "The proposed work will identify hyporheic areas in subbasins, predict their effects on stream temperatures, and assess the importance of hyporheic flows fish productivity in floodplain habitats. The work addresses a critical need for habitat restoration in large rivers and is the only work of its kind in the Columbia River Basin. The work will help identify areas of subbasins where restoration would likely yield large benefits for salmonids." It would extend this work to other basins in the Interior Columbia Region and create critical knowledge to begin water temperature restoration.

A table is attached which shows serious budget impacts to CTUIR projects under the Council-recommended funding levels. Please note that the total annual funding reduction between existing FY06 funding levels and draft NWPCC recommendations is $2.185M.
Also note that the total annual funding difference between average '2007-09 funding requests and NWPCC recommendations is $3.813M. This level of discrepancy is unacceptable to CTUIR for the above stated reasons.

Thank you for your consideration of our comments. If you have any questions or would like to discuss this subject further, please contact me at the number above or Donald Sampson, Executive Director, at (541) 276-2026.

Sincerely,

for Leo Stewart

Antone C. Minthorn
Chairman, Board of Trustees

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and
BOARD OF TRUSTEES

CONFEDERATED TRIBES
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August 15, 2006

Thomas Carrier, Chairman
Northwest Power and Conservation Council
851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204

Steven Wright, Administrator
Bonneville Power Administration
P.O. Box 3621
Portland, OR 97208-3621

Dear Sirs:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) are concerned that the Northwest Power and Conservation Council and Bonneville Power Administration are considering major funding reductions or termination CTUIR projects as a part of the 2007-2009 Fish and Wildlife Program project prioritization and selection process. Two projects of particular concern include the CTUIR's Freshwater Mussel (#200203700) and Pacific Lamprey (#199402600).

I write this letter to share with you unique cultural value, project aspects and basin-wide benefits of the Freshwater Mussel and Pacific Lamprey projects and to request your full support for these projects. At a minimum, CTUIR requests continuation at current annual funding levels of $237K and $501K for the mussel and lamprey projects respectively. In a time of much emphasis on projects involving ESA-listed salmonids, it is the tribe's desire that you understand the critical role these species play in Tribal culture and Columbia Basin ecosystem restoration. Additionally, we ask for Fish and Wildlife Program support of all treaty-reserved resources that have been affected by the construction and operation of the Federal Columbia River Power System, whether listed or not.

True restoration of Columbia Basin fisheries resources must acknowledge the role that various non-salmonid species play in relationship to salmonids and their tie to ecosystem health and diversity. To summarize, the freshwater mussel (hollow bullets) and lamprey (solid bullets) projects are valuable and unique for the following reasons:

Historic Use and Cultural Significance:

- Freshwater mussels have been used by Native Americans for thousands of years for food, currency, and adornment.

- Identification of freshwater mussel shells from archeological sites in the Columbia Basin, including the Umatilla town site, clearly indicates that mussels were extensively harvested by tribal ancestors over thousands of years.
- For cultures with long, intimate ties to freshwater ecosystems, the prospect of losing a major biological component of these rivers is alarming, because it decreases the richness of the Tribe's cultural base and diet.
- The harvest of freshwater shellfish remains a reserved treaty right.

- All locations in NE Oregon and SE Washington that formerly provided lamprey for CTUIR subsistence needs now have populations too low to support fisheries and tribes must now go to Willamette Falls to enjoy a remaining token fishery.
- The harvest of lamprey remains a reserved treaty right.

Current Status and Hydro Impacts:

- The inundation of Umatilla Rapids after the completion of McNary Lock and Dam destroyed extensive mussel beds that were historically harvested for thousands of years.
- Freshwater mussels are the most endangered animals in the world. Many species are federally listed as endangered in the eastern United States, and there is a growing movement to list western species of mussels under the ESA.
- Although historically present in the Umatilla River system, freshwater mussels are now extremely rare in the Umatilla River and its tributaries.

- Current Columbia Basin Pacific lamprey populations were estimated to be near 50,000 lampreys in 1963 at Ice Harbor Dam and numbers are now estimated around 1,000 with lamprey absent in many upriver tributaries.
- Pacific lamprey were petitioned for ESA-listing in 2003. Although likely justified, no listing occurred due to lack of assessment information.
- NOAA studies reported in peer reviewed journals have estimated that approximately 50% of upstream migrating lampreys are lost at Bonneville Dam. These losses, as well as at other dams, largely explain the cause of imperiled upriver runs and provides rationale for continued BPA-funded support for restoration and mitigation efforts.

Positive Project Reviews:

- Scientific project review provided by the ISRP has continued to be very supportive of the CTUIR mussel project and current reviews greatly complimented the accomplishments and proposal to further the unique work to address the numerous unknowns.
- ISRP support is particularly positive for a proposal focused on restoration of important functional components (freshwater mussels) of ecosystems that support salmonids and other imperiled species.

- Both mussel and lamprey projects were recommended as high priority projects by local subbasin project review groups.
- Scientific project review provided by the ISRP has been very supportive of the CTUIR lamprey project in the past and requested response to various questions in the recent review. CTUIR submitted responses to ISRP comments.

Positive Project History:

To date the project has resulted in significant new findings regarding freshwater mussels. These findings will be submitted for publication in the peer reviewed literature over the coming year (one peer-reviewed paper has already been published in NW Science):

- Based on genetic results from this project, significant taxonomic revisions in western freshwater mussels will be necessary.
- Currently one genus of *Anodonta* containing six species is thought to occur in the western United States. Based on results from this project, it appears that three additional genera exist, each potentially containing multiple species. At least several of these occur in the Columbia and Umatilla rivers. The ability to accurately recognize, monitor, and study these biological entities should contribute substantially to their conservation.
- The first significant collection of western freshwater specimens (and accompanying genetic data) has been established as a result of this project. This collection will provide a framework for describing genetic and morphological variation in these animals throughout western North America.
- As a result of extensive inventories, the conservation status has been established for all known mussel species in the Umatilla River system and the Middle and North Fork John Day Rivers. This data provides insights about the preferred habitat elements, factors contributing to local extirpations, and establishes a baseline for future monitoring programs in the region.

- Completed timely status reports of Pacific lamprey in Columbia Basin and CTUIR ceded lands.
- Developed and began implementation of Umatilla Basin lamprey restoration plan. The CTUIR's project is the only Columbia Basin lamprey project that is actively restoring lamprey in a tributary by outplanting adults and monitoring results.
- Assessed lamprey tributary habitat preference relationships.
- Contributed to previously unknown Columbia Basin lamprey genetic database.
- Assessed ability of adult lamprey to detect pheromones and larval production of pheromones.
- Identified stress steroids in lamprey.
- Project personnel authored or co-authored 7 peer-reviewed publications on results of BPA-funded lamprey work.

Ecological Benefits:

- Mussels are considered the aquatic "canary in a coal mine" and serve as bioindicators for assessing ecosystem health.
- Millions of mussels once lined the bottom of the Columbia River and its tributaries. These massive mussel beds stabilized the substrate in river reaches used by spawning salmon and juvenile lamprey.
- An individual mussel can live for 100 years. Mussels act as the "lungs" of a river because of their ability to filter large volumes of water and improve water quality by removing pollutants and particulate matter from the water column.
- Mussels process material they remove from the water column into food that is used by other invertebrates that are, in turn, eaten by salmonids and other fishes.
- The functions mussels provide may help mitigate stream effects of terrestrial disturbances such as logging, and certainly have a large impact on primary productivity (via water clarification) and aquatic food webs.
- Mussels need host fish to complete their life cycle. Many times their hosts are imperiled, too. In the Pacific Northwest, the fate of freshwater mussels is closely tied to the fate of their host fishes, including salmon.

- Like salmon, lamprey die after spawning and add nutrients which benefit aquatic ecosystems.
- The drastic reduction of juvenile lamprey in the Columbia River has forced predators to target more on salmon and steelhead smolts, and subsequently, the reduction of returning adult lamprey has forced predators to focus more on adult salmon and steelhead.

- Juvenile lamprey, like freshwater mussels, are filter feeders in early life history and also help to "clean the stream".

Benefits of Continued Work:

- The freshwater mussel project has a strong track record, and has established the necessary data to move forward with significant conservation, restoration, and taxonomic revision programs in the Columbia, John Day, and Umatilla Rivers. Program discontinuity will disrupt the productive team of investigators involved in this research. Re-initiation of this program at some future date will require a larger investment of resources than continuity.
- CTUIR has been a leader in freshwater mussel research for the Pacific Northwest, and has consistently produced scientific information that will benefit other tribes and agencies committed to restoring aquatic ecosystems.

- Bringing back a culturally significant lamprey fishery is important to tribal members who continue to exercise their reserved treaty rights.
- Restoration in the Umatilla will provide lessons for the rest of the Basin for recovery of lamprey. CTUIR continues to stay in the forefront in the efforts for gaining scientific knowledge about lamprey to help guide restoration efforts.

The above facts regarding the CTUIR's freshwater mussel and Pacific lamprey projects demonstrate unique accomplishments and basin-wide application that we see as sound justification for continued funding under the Columbia Basin Fish and Wildlife Program. If these projects are not funded, the Fish and Wildlife Program stands to lose some of its most progressive, technically sound, and demonstrably productive projects in its Program.

Regarding larger, programmatic funding issues, CTUIR asks that the Council and BPA focus on the development of a long term energy policy for the Northwest that creates energy surety for BPA customers while supporting an aggressive fish and wildlife restoration and mitigation program that provides adequate funding for projects such as those described herein. Annual funding of $738K per year would be necessary to maintain both projects from 2007 - 09.

At your request, CTUIR would be pleased to meet with you and discuss this request and related issues. Please contact Fisheries Program Manager Gary James at (541) 966 2371 or garyjames@ctuir.com to set up a meeting or for relaying questions you may have. Due to the October 1st freshwater mussel contract renewal date and need to process the FY2007 project statement of work and budget, we request a response to this letter by August 25th.

Sincerely,

Antone C. Minthorn, Chairman
Board of Trustees

DEPARTMENT OF NATURAL RESOURCES
FISH & WILDLIFE PROGRAM

CONFEDERATED TRIBES
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To: Northwest Power and Conservation Council
Bonneville Power Administration
National Marine Fisheries Service
United States Fish and Wildlife Service
From: Jesse Schwartz
RE: Next Steps in Subbasin Planning
Date: 8-3-2006

The Confederated Tribes of the Umatilla Indian Reservation Fisheries Program participated in the Northwest Power and Conservation Council's Subbasin Planning exercise in an effort to revise and refine the off-site mitigation efforts to restore focal species throughout their Ceded Lands. The Fisheries Program was thrilled with the use of Mobrand Biometric's Ecosystem Diagnosis and Treatment (EDT) model to identify priority habitats in their tributaries, and to develop expectations of improvements in the managed stocks associated with specific habitat actions. At the same time the Fisheries Program described, in the Umatilla and Walla Walla Subbasin Plans, specific improvements to the EDT model that would greatly improve our ability to understand the condition of our watersheds, the next best actions to be taken, and the results we might expect. Appendix H of the Umatilla Subbasin Plan States that (page H-7);

> *"Currently EDT is not fully capable of incorporating the suite of forcing functions that drive salmonid production. There are limitations in the model in terms of regional habitat nuances and population responses (the biological rules) that must be addressed. UMEP will work with Mobrand Biometrics and the University of Washington Columbia Basin Research Center to develop a version of EDT that addresses all sources of focal species production and loss. The biological rules will be updated as new habitat and population response data becomes available"*

In addition (H-76)

> *"Unfortunately EDT falls short of addressing three pit-falls that have been clearly pointed out by ecosystem modelers. First, EDT fails to address variability in individual behavior, growth, and physiology. This variance can contribute significantly to salmonid production and productivity (Kooijman et al. 1989, Werner 1992, Werner & Anholt 1993), and is relatively easy to address mathematically. Second, EDT is associative at several critical scales. Numerous subbasins have noted a need to "tune" EDT to regional stream and climatic conditions. This inaccuracy of the model stems from its lack of mechanistic detail that is essential to models with portable applicability (DeAngelis 1988). Last, EDT does not incorporate the density-dependent consequences a of age-structured or spatially-structured life history variability. This variance represents a critical compensatory response of most fish populations (McCauly et al. 1993, Walters et al. 1999), and must be mathematically represented in aquatic ecosystem models approaching carrying capacity (Christensen & Pauly 1998)."*

To implement those changes CTUIR submitted the proposal "Next Steps in Subbasin Planning: Umatilla Subbasin Pilot Project" #200719800. The purpose of the proposal was to work closely with Mobrand Biometrics to revise the EDT modeling framework to best meet the needs of the co-managers, and to prepare for the next round of subbasin planning. The proposal was deemed not fundable by the ISRP, greatly due to their notion that it would not be possible to engage the co-managers in the model development process. This despite the fact that the proposal stated clearly that CTUIR had worked with the co-managers to establish funding and administrative pathways to incorporating their representation.

Since that time the National Marine Fisheries Service has engaged in numerous modeling efforts of their own, all of which are considered "collaborative" but which in fact do not directly include fiscal, policy, or administrative mechanisms for the co-managers to actively revise the EDT framework. Instead these efforts, such as the SHIRAz modeling group, aim to re-create the fish-habitat model that Mobrand has already successfully implemented during subbasin planning, but incorporate the tools included in the All-H-Analyzer being implemented within the Council's Provincial Roll-Up process and NMFS's Hatchery Review and Reform Process. Thus, NOAA's work, while essential to the regions collaborative assessment process, is both redundant and counterproductive to the collaboration that has already been established through the use of Mobrand Biometric's modeling tools.

Given that the council is unlikely to fund proposal 200719800, we wish to note that the Council's program and funding regime is currently missing an opportunity to pro-actively revise the EDT framework in time to make it available to the co-managers during the next subbasin planning process. We categorically reject the suggestion that NOAA can guide a comprehensive fish-habitat modeling effort without bias, and we think it is a waste to re-create the modeling tools, already designed and implemented in the Subbasin planning process, needed to guide on and off-site habitat and hatchery planning in the region.

As part of the next round of subbasin planning there are several key tools that must be in place before we begin the planning process-

1) A data management framework that allows the collection and reporting of information in a consistent and uniform way that can guide regional decision making. We envision the use of the CBFWA Status of the Resource Project providing this framework (a website that maintains links to real time data sets - a portal if you will). The CBFWA website will begin by providing links to population level abundance information, then will grow to include life stage survival information and habitat information.

2) Data analysis tools and decision support tools that the subbasin planners can use in a consistent and uniform way for subbasin level decision making. These would be included in include in the All-H Analyzer with support from EDT, mainstem survival models, and harvest management models.

3) An EDT framework that can incorporate GIS information, bioenergetics models, and behavioral information collected from the PIT-tag and acoustic-tag datasets produced by the maangers under support of the Councils Basin-Wide RM&E program

Therefore, we are writing to request that the council clearly declare and fund a process by which the Columbia Basin co-managers can work closely with Mobrand to revise the EDT modeling framework, and develop a tool around which we can, as a Basin-Wide Program, engage in the next steps of subbasin planning and hatchery reform. In essence we are requesting that the Council establish continuity with the Hatchery Review and Reform, Recovery Planning, and Subbasin Planning processes, by developing an integrated modeling package that can support the needs of the Federal Family and their co-managers alike. More often than not these initiatives are postponed until answers are needed, rather than implemented pro-actively while the questions are on the horizon. I urge you to reverse this trend, and support a process that facilitates ownership, inclusiveness, and best-available science now while controversy is still some years away.

Sincerely,
Jesse Schwartz
Research, Monitoring, and Evaluation Supervisor
Fisheries Program
Confederated Tribes of the Umatilla Indian Reservation

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Serious Budget Impacts to CTUIR Projects as Recommended by NPCC in Draft FY '07-'09 Budget Package

Project #	Title	Subbasin	Project Recommendations		Budget Amounts (per year)		
			Local	ISRP	Existing FY06	CTUIR Proposed	NPCC Recomm.
199402600	Pacific Lamprey Research and Restoration	Umatilla	High Priority	Fundable in part (qualified)	501K	528K	0
200203700	FW Mussel Research and Restoration	Umatilla	High Priority	Fundable (qualified)	237K	295K	0
199601100	WW Juvenile & Adult Fish Passage Improvements	Walla Walla	High Priority	Fundable (qualified)	1M	775K	387K
20003900	Walla Walla Collaborative Salmonid M&E	Walla Walla	High Priority	Fundable (qualified)	700K	1.4M (combined CTUIR + WDFW)	533K
199604601	WW Fish Habitat Enhancement	Walla Walla	High Priority	Fundable (qualified)	278K	321K	0
200003300	WW Fish Passage Operations	Walla Walla	High Priority	Fundable (qualified)	120K	129K	0
200003800	WW Hatchery Three-Step Planning Process	Walla Walla	Recommended	Not Fundable	20K	250K	0
200003100	JD Fish Habitat Enhancement	John Day	High Priority	Fundable	249K	270K	0
200203000	Develop Progeny Marker to Evaluate Supplementation	Basinwide	High Priority	Fundable	177K	320K	177K
200719800	Next Steps in Subbasin Planning: Umatilla Pilot	Basinwide	High Priority	Not Fundable	0	422K	0
200725200	Assessment of Hyporheic Flow, Temp. & Fish Distrib.	Basinwide	High Priority	Fundable (qualified)	0	200K	0
				Totals	**$3.282M**	**$4.910M**	**$1.097M**

Note: The total annual funding reduction between existing FY06 funding levels and draft NPCC recommendations is **$2.185M.**
The total annual funding difference between average '07-'09 funding requests and NPCC recommendations is **$3.813M.**