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December 20, 2006

RE: Project #200200300, Secure and Restore Critical Fish Habitat

We would like to thank the Northwest Power and Conservation Council (Council) for the additional opportunity to address the Council regarding our ongoing project 200200300, Secure and Restore Critical Fish Habitat. For fiscal years FY07 through FY09, this project is a joint budget submitted by the Confederated Salish and Kootenai Tribes (CSKT) and Montana Fish, Wildlife and Parks (MFWP) aimed at protecting the best remaining fisheries habitats in the Flathead Subbasin via acquisition and/or easement. The intent of our response is to address the ISRP's concerns in the most efficient and practical way. This opportunity from the Council allows us to further describe the history of this project, the objectives we will achieve and the criteria we will use to select parcels.

Background:

The Flathead River system, as described in the Flathead River Subbasin Plan, supports an important resident fishery and habitat for threatened bull trout and species of special concern, westslope cutthroat trout as well as many other native species. Although this region has a history of land management activities and hydropower development that have impacted this important natural resource, the Flathead Subbasin is now also threatened with rapid residential and recreational development focused along major water

bodies. In 1991, with the cooperation of the Northwest Power and Conservation Council (NPCC), MFWP and CSKT completed the fisheries habitat loss estimates associated with the construction of Hungry Horse dam and the inundation of 125.8 km of the South Fork of the Flathead River and its tributaries. In concurrence with this loss estimate and through the NPCC's recent subbasin planning process, CSKT and MFWP have determined that we must actively work with both private and public landowners to maintain, protect, and restore habitat in key watersheds along the Flathead River to insure the resident fishery remains viable into the future. Necessary actions include conservation of intact, biologically diverse and/or critical fisheries habitats threatened with land use changes that could undermine resident fish populations; reconnecting historical stream habitats; and restoring and protecting important mainstem and tributary habitats. We believe that with this funding and through partnerships and other ongoing conservation and enhancement activities, we can successfully protect in perpetuity a significant portion of the habitat functionality of the streams identified as near term opportunities in the Flathead River Subbasin Plan. We will evaluate the success of the project as we go and we will attempt to maximize the benefits to cost ratio of the program as a whole.

ISRP comment: "the sponsors…have shown no progress from the previous funding…"

One of the predominant criticisms of the ISRP is that we did not report on past accomplishments or results from previous funding. Although this proposal was recommended for funding in 2002, implementation was stalled until June 2005. Because this approach to resident fish mitigation and the crediting method is precedent-setting, it took considerable effort to complete an MOA between the Tribes and BPA. Because of this, there was simply no activity under this project between the years of 2002 and 2005. The CSKT acquired its first property in fiscal year 2006 and continued to purchase habitat through September of 2006. Under the MOAs negotiated for implementation of this project in 2005 and 2006, this project did successfully credit BPA with 8.36 km toward their total obligation of 125.8 km associated with the construction and inundation of Hungry Horse Dam. With the help of ongoing partnerships, this project has now effectively protected 15 km of Class 1 and Class 2 resident fish stream habitat, throughout the Flathead Subbasin in only 16 months.

ISRP comment: "The response gives statements about what they intend, but these are not given as measurable objectives…objectives for a generic property can be given."

<u>Acquisition Objectives</u>

The main objective of this project is to protect at least 15 km of important riparian and fisheries habitat within Class 1 or 2 watersheds as identified by the Flathead River Subbasin Plan using the criteria we have developed. We will work with willing landowners to protect the best remaining habitats in a manner that provides the maximum habitat benefit to the total aquatic ecosystem. This project will be implemented consistent with strategies outlined in the Subbasin Plan, the MOA to be negotiated between BPA,

CSKT and MFWP, our jointly submitted BPA project proposal (200200300), and the NPCC recommendations. The objective for land protection will be to focus on conserving the highest quality or most important riparian or fisheries habitat areas identified in the Flathead River Subbasin Plan; first priority is Class 1 watersheds, second priority is Class 2 watersheds, third priority is "Offsite mitigation" defined as those Class 1 and Class 2 watersheds that lack connectivity to the mainstem Flathead River or Flathead Lake.

Habitat classes are based on QHA analysis. Class 1 habitats are defined as those stream habitats that bear the closest resemblance to waters unaltered by modern human activities, contain a complete set of native biota, and have a high degree of natural protection. The management goal for Class 1 watersheds is to maintain their pristine condition to the extent possible, recognizing that some biotic change is inevitable or necessary and conduct restoration as necessary to perpetuate ecological values. Class 2 aquatic watersheds are defined as those stream habitats that have low to moderate degree of modification by human activity and contain predominantly native biota. Class 2 watersheds have reasonable potential to be restored to Class 1. Class 2 aquatic watersheds are also those stream habitats that have a high restoration priority driven by ESA needs or the needs of species of concern. The management goal for these streams is to manage for protection of listed species, prevent further degradation and restore degraded habitat to the extent possible. Class 1 and Class 2 watersheds are listed in Appendix A. CSKT and FWP have agreed upon a set of biological and cost criteria that will help guide the project selection process as described in Methods below.

This project will acquire lands or conservation easements in fiscal years 2007 through 2009 to incrementally offset a portion of the 125.8 km of stream lost due to the construction and inundation of Hungry Horse Dam. At the end of FY09, CSKT and MFWP will provide BPA with mitigation credits, based on stream km acquired toward the current remaining obligation of 111.87 km. The cost of stream credits, and thus the amount of stream to be protected, will be negotiated between BPA, CSKT and MFWP. This project will protect remaining critical fisheries habitat throughout the basin by acquiring lands or establishing conservation easements using the priority areas for focal species identified in the Flathead River Subbasin Plan. When possible, BPA funds will be used to leverage other cost share opportunities to meet targets defined in the MOA.

CSKT and MFWP will negotiate an MOA with BPA, which will structure the dispersal of approximately $15 million in capital funds in federal fiscal years 2007-2009 to conserve and/or restore critical habitats in the Flathead Subbasin. Once the MOA is signed, MFWP and CSKT will have the opportunity to move conservation and restoration actions forward quickly and efficiently. Our effort will be carefully coordinated with a variety of other conservation programs and partners that are active in the Flathead, to enhance our overall accomplishments.

Through the protection of priority areas, we will mitigate for NPCC-approved construction and inundation losses in the South Fork Flathead River watershed by targeting watersheds of similar size and fisheries value, when possible. Class 1 habitats

will be targeted first followed by Class 2 habitats. Tributary losses should be offset with large tributary habitat where possible and, when this can not be achieved, with tributary habitat in gradually descending stream sizes. The third priority will be to protect offsite (those without connectivity to the mainstem Flathead River) Class 1 and Class 2 habitats where native focal species are present when habitat is not available for protection in kind and in place. Class 1 and Class 2 habitats, as identified in the Flathead River Subbasin Plan, are listed in Appendix A.

Restoration Objectives:

On parcels needing restoration and/or enhancement work, restoration activities will be funded within the budgets of ongoing CSKT project 199101901 (Hungry Horse Mitigation/Flathead Lake) and MFWP project 199101903 (Hungry Horse Mitigation). However, due to concerns raised by the ISRP regarding restoration of fluvial functions, we will briefly describe our restoration goals for all parcels protected under this project.

The desired future condition on all protected properties includes the full functioning of natural processes to the extent possible in each unique setting. Restoration objectives for each parcel will include a site-specific statement of the desired future condition, acknowledging that ecological processes are dynamic and will result in natural change over time. Therefore, our restoration objectives will include a temporal component, and will account for natural disturbances such as floods, fires, beavers, herbivory, and succession-induced changes in plant communities.

Targeting natural processes in the desired future condition also requires that we accept a range of possible restoration outcomes, rather than a single, absolutely predictable outcome. Because of this, restoration actions are dictated by the site's ecological potential or the river's most probable dynamic equilibrium. Restoration actions include elements of uncertainty because each restoration project can result in a range of possible outcomes. This requires that restoration designs result in treatments that maximize the system’s ability to change naturally while minimizing the risk of project failure.

Restoration activities will all be approached in a way that helps to restore self-sustaining ecological processes as close to historic conditions as possible. Monitoring is closely integrated with our planning process. Because many of the projects will take a phased approach, monitoring results from early phases will be used to refine plans for later phases. Similarly, results from one site may be used to refine designs and objectives at other restoration sites.

The restoration and enhancement objectives for each property will determine which monitoring methods and metrics will be used to track progress for each individual property. For example, if one objective is to restore channel dimension to match a reference condition, monitoring will include channel cross-sections, pool depth and frequency, sediment monitoring and pebble counts, and other physical measures used by fluvial geomorphologists to measure hydraulic forces and meander geometry. Channel width-to-depth ratio might be selected as one of several metrics to compare change over

time. Standard methods will be used to assess water quality and quantity, water temperature and habitat parameters over time.

ISRP comment: "Development of criteria for selecting properties ought to have been the first objective…"; "They need to come with criteria for future acquisitions."

We agree. The CSKT and MFWP have utilized sound biological criteria to prioritize lands for consideration for natural resource mitigation purposes. CSKT staff have considerable experience in parcel selection for ecological purposes due to other ongoing projects which protect fisheries resources. At this time, the CSKT and MFWP have developed joint guiding criteria to rank properties being considered for protection through land acquisition or conservation easements. Numerous criteria are condensed into two numerical scores to assist with project selection: one that addresses biological/mitigation value and one that considers the cost effectiveness of projects.

The biological score results in relative values for biological attributes, connection to our project objectives, and consistency with the subbasin plan. Criteria that will be used include: life stage utilization; subbasin plan prioritization; habitat attributes; extent of floodplain; landscape position; quality of native habitat; relationship to other protected lands and efforts; and conservation of habitat for endangered, threatened, or species of special concern. Each property must possess the appropriate physical characteristics, such as hydric soils, wetland hydrology, and/or landscape position that provides reasonable assurance that fisheries losses will be successfully mitigated.

The cost effectiveness criteria are designed to take into account the relative costs associated with proposed parcels including cost to restore, cost per credit, presence of infrastructure, and size of parcel relative to stream length.

Numerical scoring of both the biological and cost/benefit criteria, when weighted and scored will yield a scoring of the overall merits of potentially competing property acquisitions. These criteria will assist CSKT and MFWP in prioritizing properties based on their quality of habitat and ability to mitigate for the habitat lost when Hungry Horse Dam was constructed. Property selection and prioritization will be based upon the quality of habitat for resident fish and the likelihood that negotiations will result in an amicable agreement. We consider this objective complete.

ISRP comment: "Other issues include the lack of justification for acquiring properties based on limiting factors."

Based on the QHA analysis completed for the Flathead Subbasin planning process, the primary habitat factors limiting bull trout and westslope cutthroat trout were identified to be riparian condition, habitat diversity, channel stability and fine sediment (Appendix B). These problems are often caused by or exacerbated by development and land management activities. Parcel ranking and selection will focus on those lands that have either high quality habitat values or the potential to improve current conditions, habitat diversity, channel stability or sediment issues. By selecting parcels located within Class

1 and Class 2 habitats as identified in the subbasin plan, we will be focusing acquisitions on those areas that have deviated the least from historical condition, thereby protecting the best habitats first and those with the fewest limiting factors. Our intent is to target pristine lands whose limiting factors have not been compromised. In the rare event that we target a property with degraded habitat, it will be the potential to address a key limiting factor that motivates us to select that parcel. Utilization of the above described criteria will assist us with targeting the highest quality habitat including those with high restoration potential. On parcels needing restoration, the previously identified limiting factors at both the 4th code HUC and 6th code HUC will assist us with directing restoration activities.

We hope that we have better addressed the concerns the ISRP raised regarding this project. The most effective tool to maintain the habitat remaining for resident fish in the Flathead Basin is coordinated, long-term land protection activities. We look forward to your positive review and welcome any further questions or comments.

Thank you for your time and consideration.

Respectfully,

James Steele, Jr.
Chairman
Confederated Salish & Kootenai Tribes

Jim Satterfield
Regional Supervisor
Montana Fish, Wildlife & Parks

APPENDIX A
Class 1 and Class 2 Aquatic Watersheds

Class 1 Watersheds

Table 6.17. Class 1 watersheds.

Class 1 Waters	
North Fork Flathead Streams	
Akokala Creek	North Fork Flathead River 3
Anaconda Creek	North Fork Flathead River 4
Bowman Creek	Quartz Creek 1
Camas Creek	Quartz Creek 2
Dutch Creek	Trail Creek
Kintla Creek 1	Upper East Flahead (Canada)
Kintla Creek 2	Upper West Flahead (Canada)
Logging Creek	Whale Creek 1
North Fork Flathead River 2	Yakinikak Creek
North Fork Flathead Lakes	
Quartz	
Middle Fork Flathead Streams	
Bowl Creek	Middle Fork Flathead River 4
Clack \ Calbick	Middle Fork Flathead River 5
Coal Creek	Middle Fork Flathead River 7
Cox Creek	Middle Fork Flathead River 8
Dickey Creek	Middle Fork Flathead River 9
Dolly Varden Creek	Morrison Creek
Harrison Creek	Nyack Creek 1
Howe Creek 1	Nyack Creek 2
Howe Creek 2	Ole Creek
Lake Creek	Paola
Lincoln Creek	Park Creek
Long Creek	Schafer Creek
McDonald Creek 2	Strawberry Creek
Middle Fk. FHR Valley 2	Trail Creek 1
Middle Fork Flathead River 3	Twentyfive Mile Creek
South Fork Flathead Streams	
Aeneas Creek	Danaher Creek 2
Babcock Creek	Murray Creek
Bartlett Creek	Rapid Creek
Basin Creek	South Fork Flathead River 1
Big Salmon Creek 1	South Fork Flathead River 2
Big Salmon Creek 2	South Fork Flathead River 3
Black Bear Creek	South Fork Flathead River 4
Bunker Creek	South Fork Flathead River 5
Clayton Creek	South Fork Flathead River 6
Danaher Creek 1	

Table 6.17 (cont.). Class 1 watersheds.

Class 1 Waters (cont.)	
South Fork Flathead Streams (cont.)	
Dean Creek	South Fork Logan Creek
Doris Creek	South Fork White River
Gordon Creek 1	Spotted Bear River 1
Gordon Creek 2	Tent Creek
Gorge Creek	White River 2
Hollbrook Creek	Youngs Creek 1
Little Salmon Creek	Youngs Creek 2
MidCreek	
Stillwater River Streams	
Martin Creek	
Swan River Streams	
Elk Creek	Piper Creek
Holland Creek	Swan River 1
Lion Creek	
Lower Flathead Streams	
Crow Creek 1	Post Creek 1
Mud Creek	Post Creek 2

Class 2 Watersheds

Table 6.18. Class 2 and 2.5 watersheds.

Class 2 and 2.5 Waters	
North Fork Flathead Streams	
Big Creek 1	Moose Creek
Big Creek 2	North Fork Flathead River 1
Canyon Creek	Red Meadow Creek
Coal Creek 1	Sage and Kishinena Creeks (Canada)
Coal Creek 2	Shorty Creek
Cyclone Creek	South Fork Coal Creek
Hallowat Creek	Tepee Creek
Hay Creek	Whale Creek 2
Howell Creek (Canada)	
North Fork Flathead Lakes	
Bowman	Logging Lake
Kintla Lake	
Middle Fork Flathead Streams	
McDonald Lk./Middle Fk. FHR Valle	Middle Fk. FHR Valley 1
Granite Creek	Bear Creek
Middle Fork Flathead Lakes	
Lake McDonald	Harrison Lake
South Fork Flathead Streams	
Clark Creek	Spotted Bear River 3
Deadhorse Creek	Wheeler Creek
Sullivan Creek 1	Felix Creek
Silvertip Creek	Emery Creek
Sullivan Creek 2	Hungry Horse Creek
Wounded Buck Creek	Twin Creek
Lower Twin Creek	Spotted Bear River 2
South Fork Flathead River 7	
South Fork Flathead Lakes	
Wildcat	Margaret
Clayton	Sunburst
Blackfoot	Woodward
Black	Necklace lakes (4)
Handkerchief	Lena
Upper 3 Eagles	Lick
Lower 3 Eagles	Koessler
Pilgrim	George
Bighawk	Pyramid
Hungry Horse Reservoir	

Class 2 Watersheds (cont.)

Table 6.18 (cont.). Class 2 and 2.5 watersheds.

Class 2 and 2.5 Waters (cont.)	
Stillwater River Streams	
Good Creek 1	Stillwater River Valley A
Sheppard Creek	Stillwater River Valley B
Swift Creek 2	West Fork Swift Creek
Stillwater River 1	
Swan River Streams	
Lost Creek	Swan River 3
Cedar Creek	Glacier Creek
Goat Creek	Soup Creek
Condon Creek	Jim Creek
Cold Creek	Swan Lake
Swan River Valley	Woodward Creek
Swan River 2	
Swan River Lakes	
Holland Lake	Swan Lake
Lindbergh Lake	
Flathead Lake Streams	
Big Fork	Polson
Dayton Creek	Truman Creek
Ronan Creek	Yellow Bay Creek
Patrick Creek	
Flathead Lake Lakes	
Flathead Lake	
Lower Flathead Streams	
Dry Creek	Mission Creek 1
Finley Creek 1	Mission Valley
Jocko River 1	North Fork Jocko River
Jocko River Valley	Revais Creek
Jocko River Valley	Seepay Creek
Little Bitterroot Lk. Valley	South Fork Jocko River
Magpie Creek	Valley Creek 1
Middle Fork Jocko River	Valley Creek 2
Mill Creek	
Lower Flathead Lakes	
McDonald Reservoir	

APPENDIX B
Primary Limiting Factors for Bull Trout and Westslope Cutthroat Trout

Table 6.11. Major habitat-related and biological limiting factors for bull trout in subbasin streams and lakes. Low Flow, High Flow, and Oxygen are attributes that showed up as QHA limiting factors for bull trout in a few 4th-code HUCs, but these are natural watershed conditions that restoration projects cannot effectively address. This analysis is based on our QHA assessment, USFWS (2002), USFS (2000), USFS (2000a), Gardner (2000), and professional knowledge. Limiting factors (habitat attributes) are defined in tables 4.9 and 4.10.

Waterbody Type and Area	Primary Bull Trout Limiting Factors				
Streams	**Habitat-Related**				**Biological**
Subbasin-wide	Channel Stability	Fine Sediment	Riaprian Condition	Habitat Diversity	Non-native Species
Regulated Mainstem	Riparian Condition	Habitat Diversity	Altered Hydrograh	Fine Sediment	Non-native Species
North Fork Flathead	Fine Sediment	Habitat Diversity	Riparian Condition	Channel Stability	Non-native Species
Middle Fork Flathead	Channel Stability	Habitat Diversity	Riparian Condition	Fine Sediment	Non-native Species
South Fork Flathead	Riparian Condition	Channel Stability	Fine Sediment	Habitat Diversity[1]	Non-native Species
Swan River	Riparian Condition	Fine Sediment	Channel Stability	Habitat Diversity	Non-native Species
Stillwater River	Fine Sediment	Channel Stability	Riparian Condition	Habitat Diversity	Non-native Species
Lower Flathead	Riparian Condition	Fine Sediment	Habitat Diversity	Channel Stability	Non-native Species
Reservoirs	**Habitat-Related**				**Biological**
Subbasin-wide	Hydraulic Regime	Migratory Obstr.	Volum. Turnover	Shoreline Condition	Non-native Species

[1] *Habitat Diversity and Obstructions score equally in the South Fork QHA analysis.*

Table 6.12. Major habitat-related and biological limiting factors for westslope cutthroat trout in subbasin streams and and lakes. Low Flow, High Flow, and Oxygen are attributes that showed up as QHA limiting factors for westslope cutthroat trout in a few 4th-code HUCs, but these are natural watershed conditions that restoration projects cannot effectively address. This analysis is based on our QHA assessment, USFWS (2002), USFS (2000), USFS (2000a), Gardner (2000), USFWS (1999) and Shepard and others (2003), and professional knowledge. Limiting factors (habi attributes) are defined in tables 4.9 and 4.10.

Waterbody Type and Area	Primary Westslope Cutthroat Trout Limiting Factors				
Streams	**Habitat-Related**				**Biological**
Subbasin-wide	Riparian Condition	Channel Stability	Habitat Diversity	Fine Sediment	Non-native Spp & Introgressi
Regulated Mainstem	Riparian Condition	Habitat Diversity	Altered Hydrograh	Fine Sediment	Non-native Spp & Introgressi
North Fork Flathead	Habitat Diversity	Riparian Condition	Fine Sediment	Channel Stability	Non-native Spp & Introgressi
Middle Fork Flathead	Channel Stability	Habitat Diversity	Riparian Condition	Fine Sediment	Non-native Spp & Introgressi
South Fork Flathead	Riparian Condition	Channel Stability	Fine Sediment	Habitat Diversity	Non-native Spp & Introgressi
Swan River	Riparian Condition	Fine Sediment	Channel Stability	Habitat Diversity	Non-native Spp & Introgressi
Stillwater River	Riparian Condition	Fine Sediment	Channel Stability	Habitat Diversity	Non-native Spp & Introgressi
Flathead Lake	Riparian Condition	Channel Stability	Habitat Diversity	Fine Sediment	Non-native Spp & Introgressi
Lower Flathead	Riparian Condition	Habitat Diversity	Channel Stability	Fine Sediment	Non-native Spp & Introgressi
Reservoirs	**Habitat-Related**				**Biological**
Subbasin-wide	Shoreline Condition	Hydraulic Regime	Habitat Diversity	Macrophytes	Non-native Spp & Introgressi