COEUR D'ALENE TRIBE TROUT PRODUCTION FACILITY MASTER PLAN[1]

April 9, 2003

Council document 2003-03

[1] The master plan was prepared for Bonneville Power Administration by the Coeur d'Alene Tribe (Project 1990-044-02, *Coeur D' Alene Tribe Trout Production Facility*). You may obtain a copy of the master plan and support documents from Bonneville Power Administration's public Web site.
Vol. I - www.efw.bpa.gov/Environment/EW/EWP/DOCS/REPORTS/HATCHERY/A00006340-2.pdf
Vol. II - www.efw.bpa.gov/Environment/EW/EWP/DOCS/REPORTS/HATCHERY/A00006340-3.pdf
and Vol. III - www.efw.bpa.gov/Environment/EW/EWP/DOCS/REPORTS/HATCHERY/A00006340-4.pdf
These documents can be viewed or downloaded for printing. If you do not have access to the Internet, please call Nancy Webster at 503-230-4511.

STAFF ISSUE PAPER

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I. Introduction

The master plan and supporting documents, submitted by the Coeur d'Alene Tribe, is intended to provide information for a plan to produce adfluvial westslope cutthroat trout for release into rivers and streams in the Coeur d'Alene Lake basin on the Coeur d'Alene Reservation. This native fish restoration facility is for producing sufficient numbers of locally adapted fish to meet the harvest and research needs identified by the Coeur d'Alene Tribe. It will use the technology that artificial production offers, guided by policies articulated in the Northwest Power Planning Council (Council) Artificial Production Review (Council document 99-15).

The Coeur d'Alene Tribe is proposing that the Bonneville Power Administration (BPA) implement the proposal in phases to provide interim fishery benefits while the hatchery program is developed and refined based on evaluations of critical uncertainties.

- ***Phase 1*** allows for immediate harvest opportunities utilizing trout ponds for purchased rainbow trout release[3],
- ***Phase 2*** allows for harvest opportunities of released cutthroat trout in reservation streams currently lacking fishable populations,
- ***Phase 3*** calls for the re-establishment of sustainable native cutthroat trout populations in natal streams, and
- ***Phase 4*** represents the ultimate goal of providing sustainable harvest opportunities of cutthroat trout on the Coeur d' Alene Reservation.

In addition, this effort is in conjunction with habitat restoration in four target watersheds (i.e. Lake, Benewah, Evans, and Alder creeks - Project 1990-044-00, *Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation*) and is a prerequisite to realizing Phases 3 and 4. The stability of native westslope cutthroat trout populations ultimately depends on effective habitat restoration measures currently being implemented by the Coeur d'Alene Tribe in cooperation with Federal, State, and local partners.

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[3] Phase 1 is addressed under Project 1990-044-00, *Implement Fisheries Enhancement Opportunities on the Coeur d'Alene Reservation* (FY 2001 Project Proposal, Section 5, objective 3).

II. Relationship to the Council's Fish and Wildlife Program

The initial measures for establishing a Coeur d'Alene fish production facility for native trout were amended into the Council Program in 1987. First steps in this process included a baseline stream survey of tributaries located on the Coeur d'Alene Reservation (see 1987 Program Section 903 (g)(1)(B)).

In 1995, the Council adopted the recommendations of the Coeur d'Alene Tribe to improve the reservation fishery that were based on the baseline stream surveys. These recommendations included: 1) Implement habitat restoration and enhancement measures in Lake, Benewah, Evans, and Alder creeks; 2) Purchase critical watershed areas for protection of fisheries habitat; 3) Conduct an educational/outreach program for the general public within the Coeur d'Alene Reservation to facilitate a "holistic" watershed protection process; 4) Develop an interim fishery for tribal and non-tribal members of the reservation through construction, operation and maintenance of five trout ponds[4]; 5) Design, construct, operate and maintain a trout production facility[5], and 6) Implement a five-year monitoring program to evaluate the effectiveness of the hatchery and habitat improvement projects (see 1995 Program Sections: 10.8B; 10.8B.1; and 10.8B.20).

Starting in Fiscal Year 1998, the annual prioritization process for projects funded under the fish and wildlife program included a review by the Independent Scientific Review Panel (ISRP), which the Council created in response to a 1996 amendment to the Northwest Power Act. During this initial review, the ISRP recommended a comprehensive basinwide review of artificial production. The ISRP recommended that until completion of that review, the Council "not approve funding for the construction and operation of new artificial propagation programs,"

In July 1997, coincidental to the similar recommendation of the ISRP noted above, Congress directed the Council, with the assistance of the Independent Scientific Advisory Board (this is a panel of 11 scientists who advise both the Council and the National Marine Fisheries Service), to conduct a thorough basinwide review of all federally funded artificial production programs and to recommend as part of this review 1) a coordinated policy for future operation of artificial production programs and 2) means of obtaining such a policy.

Two months later, in September 1997, the Council adopted a policy that built upon the master plan element of its program to ensure that 1) new artificial production projects would be considered by the Council while the Artificial Production Review[6] was under way, 2) ensure these projects would be considered in the context of their roles and potential impacts within specific subbasins and 3) receive the detailed scrutiny recommended by the ISRP prior to approval. This policy is known as the "three-step review." It calls for "new production initiatives" to follow a basic development process that has three main steps or phases: (Step 1) conceptual planning, represented under the 1995 Program primarily by master plan development and approval; (Step 2) preliminary design and cost estimation, and environmental (i.e. National Environmental Policy Act and Endangered Species Act) review; and (Step 3) final design review prior to construction. In adopting the Three-Step Review Process, the Council agreed with the ISRP's recommendation to make use of independent peer review for projects as they move through each stage of the process.

[4] Phase 1, as describe in the master plan.
[5] The focus of the master plan (Phase 2, 3 and 4).
[6] The Council adopted the Artificial Production Review report (Council document 99-15) at its October 13, 1999 meeting. This report contains a set of policies intended to guide the use of artificial production in the Columbia Basin.

Linking environmental review and funding commitments to specific phases allowed the project sponsor and the Council to move from the conceptual to final design in steps, avoiding over commitment of resources at the early stages. The Council found that this step review process provided an orderly way to develop complex and large projects and has adopted it as a tool in making decisions[7].

On November 15, 1999 the Coeur d'Alene Tribe submitted to Council a master plan, as the first step in the three-step review process. The proposed artificial production program was designed to produce 10,000 catchable sized rainbow trout for the five catch out ponds and up to 100,000 fingerling cutthroat trout for restoration efforts in the target tributaries (i.e. Alder, Benewah, Evans and Lake creeks). Broodstock would be collected from each of the four target tributaries. These fish will be collected as migrating juveniles and held until adults in order to minimize affects on the natural populations. Each year, initially, 100-200 juveniles will be collected from the same sites in the target watersheds. These fish will be individually marked and placed into separate raceways. As these fish mature they will be used as broodstock. Westslope cutthroat trout will be initially stocked as juveniles. It was also proposed that eyed rainbow trout eggs be purchased and raised in the hatchery. When ready the rainbow trout would be outplanted into the five catch out ponds. As fish are removed from the pond, more will be added with a maximum of up to 2,000 per pond annually.

Council staff prepared an issue paper (Council document 99-17) on the above master plan and released it on December 7, 1999. The Council invited comment on the issue paper at the January 12 and February 1, 2000 meetings and accepted written comments through February 4, 2000. The key issues focused on genetic and ecological risk, habitat, basin planning, catch out ponds, ESA listing and harvest management. No oral comments were made regarding this project at the two meetings where a request was made. The only comment received occurred on February 4, 2000 in written form from Idaho Fish and Game (IDFG). Many of issues inherent in IDFG comments were addressed in the Independent Scientific Review Panel (ISRP) review associated with their review of the submitted master plan (ISRP document 2000-1).

At the April 5, 2000 meeting in Boise, the Council approved the master plan for the Coeur d'Alene Tribe Trout Production Facility. While it approved the master plan, the Council requested a report, prior to any other activity associated with the development of preliminary designs, that provided a detailed analysis of the yields from the test wells and an analysis on the most cost effective and efficient means to provide trout for the catch out ponds. In addition, the Council requested that the report clearly address the issues raised in the issue paper (Council document 99-17) and ISRP review (ISRP document 2000-1), especially as it relates to the limiting water.

On February 5, 2001 Council received from J-U-B Engineers, Inc a report entitled *Analysis Of Well Yield Potential For A Portion of the Coeur D'Alene Reservation Near Worley, Idaho*. This report was followed by an additional report, from the Coeur d'Alene Tribe on March 28, 2001, that include a memo addressing the well analysis report (with additional attachments) and cost effectiveness regarding trout for the catch out ponds. The report and additional document were intended to address the conditions placed on the project as part of the step approval by Council on April 5, 2000. The water report confirmed the complex nature on the dynamics of the hydrogeologic setting of the well

[7] On October 18, 2001 the Council adopted an updated review process called the Major Project Review process that incorporating the three-step review process (Council document 2001-29).

network in the vicinity of the proposed facility. The report concluded that additional evaluations were needed to understand the nature of the proposed ground water system.

Due to the timing of the water evaluation report submittal and the other elements of the pre-step 2 submittal (i.e. including the Council's request regarding the water analysis and rainbow cost effectiveness documents prior to any activities associated step 2) the Council recommended that direction to proceed to preliminary design (i.e. step 2) be addressed as part of the upcoming provincial review.

On June 27, 2001 Council approved funding recommendations for the Mountain Columbia provincial review[8]. The Council concluded that the ISRP's criticisms, as part of their review of project proposals for the Intermountain Province, were so severe that further consideration of the existing artificial production proposal would be unsuccessful if returned to the ISRP for review[9]. The Council decision recommended that the Coeur d'Alene Tribe be provided an opportunity to revise the project concept. That would be an opportunity to consider the challenges observed for an artificial production approach and develop a new conceptual design. This would be a "step one" review (i.e. master plan) in the Council process for artificial production projects.

To accomplish the task of revising the project concept the Coeur d'Alene Tribe formed an Interdisciplinary Team comprised of eleven recognized scientists in the fields of hatchery construction, hatchery life support systems, fish ecology, and fishery management. The Coeur d'Alene Tribe and the team built upon the critical uncertainties raised in the previous master plan review and highlighted the importance of research/monitoring and evaluation strategies in the development of a new master plan. This "new" master plan and supporting documents were submitted to the Council on January 13, 2003.

On January 30, 2003 the master plan and supporting documents were submitted to the ISRP for their review and comment. On March 17, 2003 the ISRP provided their review to the Council. The ISRP concluded that the master plan did not provide a convincing basis for the implementation of this project and had not adequately addressed critical issues (ISRP 2003-5)[10].

III. Historical and Current Management of Resident Fish in the Subbasin

Salmon and steelhead are extinct from traditional Coeur d'Alene tribal fishing areas because of the construction of mainstem Columbia River dams (primarily Grande Coulee and Chief Joseph dams). This forced the Tribe to rely on the resident fish resources for traditional fishing activities and subsistence. Early information on the historic distribution of resident fish species in the Spokane River basin is based largely on written accounts from primarily Euro-American settlers and oral testimony from Coeur d'Alene tribal members. The common theme of these accounts was that cutthroat trout was the most abundant resident fish species. Subsequent declines in native salmonid fish stocks; in

[8] Since the time of this decision the activities associated with the Coeur d'Alene subbasin have been realigned to the Intermountain Province.

[9] The ISRP (ISRP document 2001-4) recommended no funding for the Coeur d'Alene Tribe's proposed trout production facility (#1990-044-02). The central criticisms are the basis for artificial production assumptions and predation in Lake Coeur d'Alene. The project sponsors ask that the Council allow the current proposal to continue in "Three-step" review, notwithstanding the ISRP's criticisms

[10] http://www.nwcouncil.org/library/isrp/isrp2003-5.pdf

particular, westslope cutthroat trout in the Coeur d'Alene basin caused the elimination of traditional subsistence fisheries by Coeur d'Alene tribal members.

Westslope cutthroat trout inhabit streams, rivers, and lakes on both sides of the Rocky Mountain Continental Divide. Distribution east of the divide is limited mostly to Montana but some also occur in some headwater systems in Wyoming and Southern Alberta. West of the divide they range from Southern BC to the Salmon River basin, Idaho and Oregon.

These fish can be resident or migratory. Resident forms will spend their entire lives in the streams where migratory forms move downstream to a larger river or lake. These migratory forms will then move back to natal streams to spawn. Resident fish spawn predominantly in small tributaries with the migratory forms spawning in the lower reaches of the same streams. Spawning usually occurs from March to July at water temperatures near 10^{o}C. Westslope cutthroat trout are repeat spawners consistently up to 24% of the overall spawning population. This is important because repeat spawners are usually older larger fish. Most fry emerge from the gravel in late June to early July into the streams where the migratory forms may spend up to three years before moving downstream. Migratory fish usually spawn for the first time at five years of age.

Idaho Department of Fish and Game (IDFG) have estimated that westslope cutthroat trout populations considered as "strong" (greater than or equal to 50 percent of historical potential) remain in only 11 percent of the historical range within Idaho. On the Coeur d'Alene Reservation none of the populations are considered "strong". IDFG believe that less than 4 percent of the historical range support strong populations not threatened by hybridization. Genetic analyses of the cutthroat populations show that relatively pure stocks exist in reservation waters. Only minimal amounts of hybridization with rainbow trout have occurred. Some populations show no hybridization at all. Thus, it could be theorized even though the populations are not "strong" they are not threatened to a large extent with hybridization. Implications here are that if the effect of limiting factors can be reduced genetically pure populations would have a chance to recover.

Large and diverse cutthroat trout populations remain in heavily forested upper elevation portions of the Coeur d'Alene River basins. However, cutthroat populations in low elevation tributaries of Coeur d'Alene Lake have been severely impacted by cumulative impacts of habitat ecological community changes

Initial work rated reservation stream habitat according to their potential for westslope cutthroat trout. Ten streams were selected for further study based on geographic location, potential for habitat improvement, road access, and stream gradient. Physical and biological surveys were conducted on the 10 selected streams. These surveys incorporated stream bank and bed stability, riparian condition, land use, urbanization, migration barriers, water quality, stream flow, substrate suitability, channel modification, relative abundance estimates, and macroinvertebrate densities. These physical and biological data were then combined to choose the four streams (i.e. Alder, Benewah, Evans, and Lake creeks) that offered the best potential habitat and highest fish populations for further study.

IV. Summary of the Proposed Production Project

The role of the Coeur d'Alene Tribe Trout Production Facility is mitigation for the loss of anadromous fish harvest as a result of elimination/blockage of salmon habitat through construction and

operation of Grand Coulee Dam. Additionally, given the extent of habitat loss from the encroachment into the riparian and adjacent lands of tributaries on the Coeur d'Alene Reservation, it is unlikely that natural production in a recovered ecosystem would support tribal subsistence, and sports harvest interests. This project will address partial mitigation (out-of-place, out-of-kind) for anadromous fish losses in the Upper Columbia River basin through a resident fish substitution program[11]. The Coeur d'Alene Tribe Trout Production Facility construction project is one of many ongoing efforts directed at mitigating losses attributed to construction of Grand Coulee and Chief Joseph dams.

A. Project management structure and process

The Coeur d'Alene Tribe place a high priority on protecting remaining wild populations from significant fishery, genetic, and ecological risks. Thus, research and interim fishery development activities will be concentrated in streams that do not currently contain cutthroat trout. Ten critical uncertainties have been identified and are an integral part of the master plan. Answers to these uncertainties will refine production and release strategies for the hatchery program. The ten critical uncertainties are: 1) Efficient practices for producing significant numbers of adfluvial cutthroat trout from the hatchery; 2) Accessibility, use, and benefits of adfluvial cutthroat fisheries established using hatchery fish; 3) Relationship of resident and adfluvial life history traits in cutthroat trout; 4) Life stages and survival rates that currently regulate cutthroat trout population sizes; 5) Habitat and rearing density limitations on cutthroat trout production; 6) Constraints in tributaries associated with other species, especially including brook trout; 7) Interactions in stream habitats between hatchery and naturally-produced fish; 8) Interactions in lake between wild cutthroat, hatchery cutthroat, and potential fish predators; 9) Feasibility of using the hatchery to reintroduce resident and adfluvial cutthroat into streams where they do not currently exist, and 10) Feasibility of hatchery supplementation to increase natural production of adfluvial fish in an existing population.

B. Potential production goals

Based on the production objectives identified by the Tribe, the facility will contribute 65,000 fingerlings (1.5 inches), 27,000 juveniles (4.0 inches), and either 20,000 adults (8-10 inches) or 17,000 adults (13 inches) at full capacity. At full production, the Coeur d'Alene trout facility is conservatively designed to hold a maximum of 247,200 cutthroat (23,780 pounds) at various sizes and ages. It is anticipated that 6 to 8 years will be required to fully develop a cutthroat broodstock and achieve full cutthroat trout production. Releases of fish will target specific water bodies for research and harvest. Release numbers are based on interim fishery, research, and evaluation objectives. Future release numbers will be revised based on results of initial investigations.

[11] Policies and measures for resident fish substitution are in Sections 10.1 and 10.2 of the Council's 1995 Fish and Wildlife Program. The intent of this policy is to replace losses of anadromous fish in areas now permanently blocked to salmon and steelhead with resident fish species.

Number of Fish	*Size/Weight*	*Species/Life Stage*	*Pounds Produced*
1,600	12 inch/0.75 lbs	CTT/Broodstock	1,200
130,000	1.5 inch/1.2 lbs per 1,000	CTT/Fry	156
55,000	4 inch/22.6 per 1,000	CTT/Fingerling	1,243
24,000	7 inch/111 per 1,000	CTT/Adults	2,664
20,000	8-10 inch/272 per 1,000	CTT/Adults	5,440
17,000	13 inch	CTT/adults	13,080[1]
247,600			***23,780***

[1]*Produced using grow-out ponds.*

Sources of hatchery broodstock will be developed consistent with program fishery and conservation goals based on fish availability and a careful benefit risk analysis. Potential alternatives include: 1) natural-origin fish that preserve attributes of the wild populations and minimize risks associated with straying, 2) sterile triploids that pose little risk of introgression, and/or 3) a hatchery stock selected to minimize overlap with natural spawners.

C. Experimental goals and approach

Effective monitoring is critical to a successful program. Effective monitoring determines whether the action completed achieved the objective. The monitoring program as outlined in the master plan will be critical to the effective and efficient adaptive management of this phased natural and artificial production program and the understanding of the critical uncertainties as it relates to these westslope cutthroat populations. Hatchery evaluations are one component of the proposed integrated program that also addresses management of resident and adfluvial forms of cutthroat trout and evaluations of the habitat restoration program.

D. Fishery Benefits

Specific objectives and benefits of the Coeur d'Alene Tribe Trout Production Facility include:

1. Provide interim fishery opportunities until habitat measures can restore natural cutthroat trout populations to productive self-sustaining harvestable levels.
2. Identify factors limiting the viability and productivity of native cutthroat trout populations and resolve critical uncertainties in cutthroat biology and population dynamics that currently constrain preservation and restoration planning.
3. Experimentally evaluate the feasibility of conservation-based hatchery measures for cutthroat trout protection, restoration, and use, including reintroduction and supplementation.
4. Participate as an active and fully vested partner in fish conservation, fishery development, and fish management.

E. Site and Facilities

The site selected for the proposed facility is located on the west side of Coeur d'Alene Lake and is in tribal waters. The acreage identified for sale is approximately 103 timbered acres with 6,200

feet of lake shoreline. It anticipated that the acreage needed for the proposed facility would be 20 acres.

A 5,100 square-foot hatchery building and facilities will be constructed for the production of approximately 130,000 cutthroat trout fry. An outdoor isolation/early rearing covered area, containing five 4-ft. diameter round tanks, will be used to hold and observe newly recruited wild cutthroat fingerling prior to releasing them into the broodstock raceways. Broodstock raceways will be constructed for the four targeted life histories. A 120 square-foot incubation room, complete with four 8 tray vertical incubators, will be located adjacent to the fry rearing area containing fiberglass troughs. The fry will be over winter in the hatchery building until ready to be released in the outdoor acclimation facilities (3 sites) or one of the four concrete raceways.

The hatchery water supply will be supplied by withdrawal from Coeur d'Alene Lake. The pumps will be configured for selective water withdrawal, for temperature control and backup purposes. The two pumps have a capacity of up to 3,000 galloons per minute.

For potential future production of 42,000 13-inch cutthroat adults for supplementation efforts, the hatchery will require an additional ten fiberglass troughs to produce the required 76,000 1.5-inch fry. The additional space within the hatchery building will be used to accommodate fourteen larger troughs for the production of 64,000 4.0-inch (year 2) fingerlings. In addition, two grow-out ponds are proposed for the final grow-out of these trout over another 12-month period. This future production will require a third pump be added for the hatchery water supply.

Other facilities associated with this proposed site includes well water systems for domestic and incubation requirements, a 1200 square-foot shop/feed storage building, backup generators, a three bedroom residence, effluent pond and perimeter fence and gate.

Additional facilities will include a small diagnostic lab, office space (kitchen/dining/bunkroom area), and a public interpretive area for outreach and educational functions.

F. Capital Costs

1. Schedule for Development

Based on the production objectives identified by the Tribe, the facility will contribute 65,000 fingerlings (1.5 inches), 27,000 juveniles (4.0 inches), and either 20,000 adults (8-10 inches) or 17,000 adults (13 inches) at full capacity. At full production, the Coeur d'Alene trout facility is conservatively designed to hold a maximum of approximately 247,200 cutthroat (23,780 pounds) at various sizes and ages. Implementation will occur in phases to provide interim fishery benefits while the hatchery program is developed and refined based on evaluations of critical uncertainties. The phasing of the program does not represent a change in the infrastructure needs of the facility.

Planning so far has cost $1,049,000 million dollars and includes master plan completion and submittal, conceptual engineering designs and costing, staffing to complete necessary work for the submission of the master plan and to provide appropriate training for future hatchery personnel, and genetic analysis[12]. Additional planning expenses include costs for compliance with National

[12] Includes the cost associated with the current and the previous master plan submittals, but not early baseline surveys associated with Project 1990-044-00.

Environmental Policy Act, staffing costs, planning costs associated with step 2 and 3 for preliminary and final designs, and construction management is estimated at $114,000 in Fiscal year 2004. Cost of preliminary and final designs are estimated to be about $270,000. Construction of the Coeur d' Alene Tribe Trout Production Facility is estimated to cost $ 2,902,585 and is targeted for construction in Fiscal Year 2005. Annual operation and maintenance costs after all facilities are fully developed would cost about $350,000. Monitoring and evaluation is estimated to cost about $300,000 annually. Land purchase associated with the facility is estimated to cost $1 million[13]. These cost figures are based on estimates from engineers' opinion of probable construction costs and the Master plan for the project.

G. Harvest Management

Biological objectives for wild adfluvial cutthroat trout in tributaries of the Coeur d'Alene Reservation include rebuilding adult populations to 75-100 percent (i.e. 31,715 to 42,289 returning adults) of the optimum level. Numbers of returning adults is based solely on the amount of available spawning habitat in the tributaries and not on juvenile carrying capacity. Because the smolt to adult survival estimate has not been completed, the escapement estimates are based on total available spawning habitat in each of the target tributaries. Adult return estimates are independent of juvenile rearing carrying capacity estimates. This is because total number of returning adults is comprised of both hatchery and naturally produced fish.

The harvest goal is 35 percent (i.e. 11,101 to 14,808 fish) of the total number of adults returning to the target tributaries once the populations have stabilized and it has been determined that the trend is increasing. Until the 75 percent objective is met only hatchery fish will be harvested. Total allowable tributary harvest will be based on meeting spawning escapement goals and broodstock needs. No changes to the limited harvest mixed stock fishery in Coeur d'Alene Lake are anticipated until populations of tributary stocks have stabilized and the 75 percent objective has been met.

Harvest of cutthroat trout in the Coeur d'Alene systems has been limited since 2000 by state regulation to two fish per day, none between 8 and 16 inches. Biologically, this allows virtually all cutthroat to spawn at least once before being legally harvested, and protects the vast majority of the catchable sized population from harvest.

Fisheries in reservation waters are regulated by the Coeur d'Alene Tribe. The Coeur d' Alene Tribe has maintained a strict wild fish management policy for traditional fishing areas, primarily on important cutthroat trout streams within the Reservation. Benewah and Lake creeks have been closed to all fishing since 1994. The emphasis is to restore these areas in order to optimize conditions for expansion of wild stocks with habitat restoration. However, substantial increases to these populations to support any sizable harvest goals are not expected for some time. Evans and Alder creeks are currently managed consistent with state regulations. The Coeur d' Alene Tribe has proposed to allowed harvest in select areas concurrent with restoration of hatchery-reared fish runs in readily-accessible tributaries that do not currently contain significant wild populations of cutthroat trout. All hatchery-reared fish will be marked. Liberal bag limits will be established for hatchery-reared fish to encourage harvest.

[13] Estimated cost associated with a 20 acres tract of the 103-acre parcel (assumes total cost of $5million).

IV. Key Questions and Issues

The Council invites comment on any aspect of the issue paper and master plan. Particular emphasis is encouraged on the following questions:

1. The Coeur d'Alene Tribe undertook an intensive planning process using existing knowledge of the habitat and native fish stocks. The planning process involved the revising an earlier rejected master plan in favor of a new master plan crafted by an Interdisciplinary Team. This new master plan focuses and elaborates on a native fish restoration hatchery, as a sole alternative for producing sufficient numbers of locally adapted fish to meet harvest and research needs of the Coeur d'Alene Tribe.

Have the issues and concerns raised by the Council and the ISRP regarding the old master plan been adequately addressed? Are the risks associated with no action equal or greater than what might be expected from the proposed project? Are there other lower risk alternatives the Coeur d'Alene Tribe should consider that would meet their management goals?

2. Genetic Risk

Is there a significant increase in genetic risk(s) to the existing distinct population groups of native westslope cutthroat from the proposed program? Are there actions, in addition to those proposed in the master plan that could be taken to reduce the risk(s)?

Are the 10 critical uncertainties listed in the master plan adequate to address the earlier concerns raised by the Council and the ISRP?

3. Habitat Restoration

Is the habitat capability in the target streams sufficient, as it exists or due to restoration activities, to complement the proposed artificial production program as outlined in the master plan? Is the timing complementary?

4. Subbasin Planning

The Council anticipates that subbasin plans will be developed for the basins in the Columbia River. These plans will be consistent with Artificial Production Review purposes, policies, and recommend actions. Should a decision on this master plan be delayed until the Council has approved the subbasin plan, guided in part by the approved plan's goals and objectives?

Oral comments on this issue paper can be made at the Council's May 6-7, 2003 meeting in Walla Walla, Washington, and at the Council's June 10-12, 2003 meeting in Boise, Idaho. Written comments will be accepted through June 13, 2003. Comments should be mailed to Mark Walker at the Council's central office in Portland, Oregon, and reference Council document 2003-03. Based on comments received by that date, Council staff will develop a list of alternative actions that will be considered by Council. At the August 12-13, 2003 meeting, the Council will consider whether to approve the master

plan and preliminary designs (step 2) for facilities associated with the Coeur d'Alene Tribe Trout Production Program

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