Northwest Power and Conservation Council

February 8, 2005

DECISION MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch, Project Implementation Manager

SUBJECT: Step 1 review of the *Chief Joseph Dam Hatchery Program*, Project # 2003-023-00.

PROPOSED ACTION

I. The staff recommends that the Fish and Wildlife Committee approve the Chief Joseph Dam Hatchery Program Step 1 Master Plan. The Program, including the spring Chinook component and the two research studies, is approved to proceed to implement Step 2 planning and preliminary design in Fiscal Year 2005. As part of this recommendation the staff recommends an additional $349,000 in capital funds be provided to the project's Fiscal Year 2005 budget to proceed with Step 2 activities and to initiate the two research studies.

II. It is recommended that the Fish and Wildlife Committee call for additional information to be developed that fully addresses the issues raised by the independent peer review for consideration during the step 2 review.

SIGNIFICANCE

The master plan, submitted by the Confederated Tribes of the Colville Reservation (Colville Tribes) proposes to increase the abundance, distribution, and diversity of naturally spawning populations of summer/fall Chinook salmon in the Okanogan River and in the Columbia River above Wells Dam by constructing a hatchery and acclimation ponds, and instituting terminal, selective fisheries.

While the focus of the Chief Joseph Dam Hatchery Program (CJDHP) Master Plan is on propagation of summer/fall Chinook salmon, an additional priority for the Colville Tribes is consideration to use the proposed facility to reintroduce the extirpated spring Chinook salmon to

851 S.W. Sixth Avenue, Suite 1100
Portland, Oregon 97204-1348
www.nwcouncil.org

Steve Crow
Executive Director

503-222-5161
800-452-5161
Fax: 503-820-2370

their historical habitats in the waters in and around the Colville Reservation and to re-establish a ceremonial and subsistence fishery.

The master plan also identifies research needs that are critical to the implementation of the proposed hatchery. The first research study consists of radio-telemetry research to determine where and when summer/fall Chinook migrate. This study is critical to the development of broodstock protocol and subsequent acclimation of progeny. The second research study is intended to test the viability of live-capture, selective fishing gear for the anticipated broodstock collection.

BUDGETARY/ECONOMIC IMPACTS

The project was originally part of the Council's recommendation for funding in Fiscal Year 2003 through 2005 for the Columbia Cascade province (Fiscal Year 2003 @ $393,500, Fiscal Year 2004 @ $325,000 and Fiscal Year 2005 @ $185,000). As part of the Council's Fiscal Year 2004 start-of-year planning budget ($150,000) the Council noted that the project is recently contracted for master plan development and acknowledged that the province recommendation should be aligned appropriately. The Council's Fiscal Year 2005 start-of-year planning budget recommended $575,000 and noted that the project was on pace for the submittal of a master plan, and that future funds are subject to step reviews. Bonneville is treating this project as a capital project, as recommended by the Council.

I. Summer/Fall Chinook

The total cost for the CJDHP master plan and design work to date is $430,449 and includes master plan completion and submittal, conceptual engineering designs and costs, and staffing necessary to complete work for the submission of the master plan.[1] Preliminary designs and associated work to complete Step 2 is estimated to cost about $575,000 in Fiscal Year 2005. Planning and designs (i.e., preliminary and final) associated with completion of Step 2 and Step 3 is estimated to cost $2,400,000 in Fiscal Year 2006 through Fiscal Year 2007. Research necessary to provide critical information (i.e. Brood Research Plan to Access Behavior and Broodstock Testing Collection Plan) during the preliminary planning process (Step 2) is estimated to cost $844,000 in Fiscal Year 2005 through Fiscal Year 2007. Planning and final designs associated with completion of Step 2 and Step 3 is estimated to cost $2,400,000. Construction of all the project elements outlined in the Chief Joseph Dam Hatchery Program Master Plan is estimated to cost $17,370,000[2] and assumes the major project construction to occur in 2008 and 2009 with capital equipment being purchased ($584,000) in 2009 and 2010. Total cost for all aspects of this proposed project, including planning and design, and research

[1] The total cost includes $386,799 from Project # 2003-023-00 and $39,380 for the development of the summer/fall and spring Chinook HGMP's from Project #2003-005-00.

[2] These costs are preliminary estimates, based on a conceptual design. Due to the level of certainty, a 30 percent contingency is applied to the overall costs. However, contingency is largely dependent on the quantity of uncertainties associated with the project and the amount of pre-investigation work completed. It is expected that the estimated construction costs represent a maximum range based on the defined project. There may be potential for costs reductions to be identified in future planning stages through analysis of alternatives and elimination of many uncertainties.

and construction costs, is estimated to be $22,097,479.[3] Annual operation and maintenance costs after all facilities are fully developed (2009) would be approximately $858,000. Monitoring and evaluation is estimated to cost about $345,000 annually.

II. Spring Chinook

The total cost to add facilities necessary for the proposed spring Chinook program is approximately $5,570,000. Operational costs would add about $221,693 to the summer/fall Chinook program costs. Additional monitoring and evaluation costs associated with the spring Chinook portion of the proposal are estimated to be $161,998.[4]

III. Costs to Date[5]

FY	**03**	**04**	**05**
Planning - spring/summer /fall chinook	.021	.334	.075

IV. Future Costs

FY	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**13**	**14**	**15**
Planning - spring/summer/fall chinook											
Step 2 Planning	.500	.600									
Step 3 Planning		.075	1.725								
Brood Research Plan to Access Behavior	.319										
Broodstock Testing Collection Plan	.030	.240	.225								
Construction											
summer/fall chinook				10.422	6.948						
spring Chinook				3.342	2.228						
Capital Equipment											
summer/fall/spring chinook					.350	.234					
Land Purchase and Easements											
Easements[6]				.024	.025	.026	.027	.027	.028	.029	.030
Purchase[7]			.460								
O&M											

[3] Figures are based on FY 2004 dollars.
[4] In addition to the figures reflecting a 30% contingency and in FY 2004 dollars, construction of the spring Chinook facilities at the same time as the summer/fall Chinook facilities would result in a savings of approximately $280,000.
[5] Costs are in millions.
[6] Long-term lease agreements for irrigation ponds. Assumes an annual rental cost of $4,000 for two ponds, 6 months annually.
[7] Anticipated for the purchase of lands for two acclimation ponds. Riverside pond @ approximately $300,000 and Omak pond @ $160,000.

summer/fall chinook				.086	.089	.918	.949	.981	1.015	1.049	1.085
spring Chinook				.006	.006	.237	.245	.254	.262	.271	.280
M&E											
summer/fall chinook				.162	.242	.242	.369	.382	.395	.408	.422
spring Chinook				.076	.096	.198	.205	.212	.219	.226	.234

The requests for the additional research studies, as outlined in the master plan, were presented to the Budget Oversight Group in December and January. The radio-telemetry research study has requested $319,000 in Fiscal Year 2005, and the live-capture/selective fishing gear study has requested a budget of $30,000 in Fiscal Year 2005, $240,000 in Fiscal Year 2006 and $225,000 in Fiscal Year 2007.

BACKGROUND

I. History and development of the Chief Joseph Dam Hatchery Program

In December 2001, as part of the solicitation associated with the Columbia Cascade Province, the Colville Tribes submitted a series of seven new proposals to address habitat restoration, fish propagation, fish harvest, and research, monitoring, and evaluation needs in the Okanogan subbasin. After working with existing projects,[8] additional funds remained within the province allocation. The prioritization group sought to add new proposals that advanced their most pressing management objectives and had broad support from the ISRP, CBFWA, Bonneville, and NOAA Fisheries for ESA needs. This list of new proposals, prioritized by the Columbia Cascade fish and wildlife managers and fitting within the province allocation, included two of the series of new proposals submitted by the Colville Tribes. Proposal #29040 *Develop and Propagate Local Okanogan River Summer/Fall Chinook*[9] and proposal #29033 *Design and Conduct Monitoring and Evaluation Associated with the Re-establishment of Okanogan Basin Natural Production.*

In October 2002 as part of the issue summary for the Columbia Cascade provincial review (Project Issue #3) the Council recommended a total of four new proposals that included two of the original series of seven new proposals submitted by the Colville Tribes.

Prior to contracting for Chief Joseph Dam Hatchery Program[10] the Colville Tribes raised concerns that some of the original proposals were not intended to stand alone, but were interrelated to the fish propagation proposals (e.g. selective fish collection and harvesting gear) and part of the Colville Tribes' broader anadromous fish recovery objectives. Though some of the key objectives of the unfunded proposals (e.g. selective fish collection and harvesting gear)

[8] The prioritization meetings for the Columbia Cascade Province were focused on the fish and wildlife managers within the province -- the Colville Tribes, the Yakama Indian Nation, and the Washington Department of Fish and Wildlife. While these were the primary participants in the process to reach a proposed package that fit within the allocated budget, those entities, as well as Washington and central office Council staff worked to ensure that projects sponsored by other entities were fairly reviewed and considered. This effort to ensure due consideration benefited from the participation of entities in the Upper Columbia River Salmon Recovery Board process and their familiarity with other participants and projects that are also part of that state process.

[9] The proposal is now titled *Chief Joseph Dam Hatchery Program*, and is implement through Project # 2003-023-00.

[10] In April 2003, BPA agreed to fund development of the CJDHP Master Plan. In July 2003, BPA negotiated a contract with the Colville Tribes to develop a CJDHP Master Plan.

could be addressed as part of the Master Plan during the Three-Step Review Process, the Colville Tribes were concerned with anticipated future needs regarding the spring Chinook production. The Colville Tribes thought it would be cost effective to simultaneously include separable spring Chinook facilities in the hatchery's conceptual design.

Council and Bonneville staff met with the Colville Tribes and determined that inclusion of this additional information regarding spring Chinook at the Step 1 Master Plan stage for summer/fall Chinook would be beneficial to both plan reviewers and decision-makers. Moreover, all parties recognized that potential cost efficiencies might be secured through early identification of design and construction alternatives associated with the spring Chinook components of the Chief Joseph Dam Hatchery Program (CJDHP) proposal.

From this meeting Bonneville contracted the development of a Master Plan (Step I), including conceptual designs for hatchery facilities necessary for production of summer/fall Chinook and spring Chinook. The reasons for including the spring Chinook component in Step 1 were:

- Very low relative cost to include both summer/fall and spring Chinook in the Master Plan development.
- To provide an opportunity for the Council and the Independent Scientific Review Panel to review the summer/fall and spring Chinook programs together within the context of the Okanogan subbasin ecosystem.
- Identify opportunities to achieve cost savings by developing, designing and constructing the summer/fall and spring Chinook propagation facilities at the same time.

On May 26, 2004, the Colville Tribes submitted the Step 1 documents (i.e., master plan) initiating the Three-Step Review Process. The spring Chinook components in the CJDHP Master Plan are presented in a single separate chapter and all costs and facility requirements are presented as separate components. Council staff determined that the inclusion of this additional information at the Step 1 Master Plan stage benefits both plan reviewers and decision-makers. Moreover, all parties recognized that potential cost efficiencies might be secured through early identification of design and construction alternatives associated with the spring Chinook components of the CJDHP proposal.

Though Council staff determined that the addition of spring Chinook to the Master Plan was permissible, any future efforts would need specific Council approval. Though a series of decisions will be made as the project proceeds through the review process, the initial decision regarding the addition of spring Chinook production was needed prior to initial ISRP review. Therefore, on June 9, 2004, the Council supported the staff recommendation that the spring Chinook component of the submitted Chief Joseph Dam Hatchery Program Master Plan be reviewed by the ISRP and that at the time of the Step 1 decision, the scope and direction of this project would be determined.

A. Summary of the Proposed Production and Research Elements

1. Summer/Fall Chinook

The summer/fall Chinook components of the CJDHP consist of two complementary programs:

- An integrated recovery program designed to increase abundance, distribution, and diversity of naturally spawning summer/fall Chinook salmon within their historical Okanogan subbasin habitat.

- An integrated harvest program designed to support a tribal ceremonial and subsistence fishery, and to provide increased recreational fishing opportunities for local citizens.

The summer/fall Chinook population in the Okanogan River is at present supported by natural production and a single hatchery program that produces up to 576,000 yearling smolts annually. The proposed CJDHP will increase production of juvenile summer/fall Chinook for the Okanogan River by 400,000 early-arriving and 700,000 later-arriving summer/fall Chinook.

The summer/fall Chinook integrated recovery program will be implemented through five conservation actions:

- Development of a local Okanogan River broodstock.
- Expansion of current broodstock collection by two months, in order to propagate the full historical run of summer/fall Chinook.
- Propagation of both the yearling and subyearling life histories to achieve full, natural diversity and provide necessary programmatic flexibility.
- Improved distribution of spawning throughout the historical summer/fall Chinook habitat.
- Control of the proportion of hatchery-origin fish spawning in the wild.

The summer/fall integrated harvest program is designed to support a tribal ceremonial and subsistence fishery and to provide increased recreational fishing opportunities for local citizens. To support the integrated harvest objectives, 500,000 early-arriving, and 400,000 later-arriving summer/fall Chinook will be released at Chief Joseph Dam Hatchery. Total new production for the production and harvest purposes is therefore 2,000,000 summer/fall Chinook.

2. Spring Chinook

The Colville Tribes have developed a two-phase management plan to reintroduce extirpated spring Chinook. The CJDHP would provide the artificial production facilities necessary for this phased reintroduction. A combination of existing and new facilities will be used to accomplish the program objectives.

The CJDHP spring Chinook component includes two complementary parts:

- An integrated recovery program designed to restore naturally spawning spring Chinook populations to their historical habitats in the waters in and around the Colville Reservation.

- An isolated harvest program designed to restore a stable ceremonial and subsistence fishery, and to provide increased recreational fishing opportunities for local citizens.

If the full two-phase program is implemented, spring Chinook produced in the second phase would also provide benefit in the recovery of the listed Upper Columbia River Spring Chinook ESU.

The CJDHP spring Chinook programs will increase production of Carson stock spring Chinook destined for the Okanogan subbasin to 900,000 smolts. The spring Chinook integrated recovery program will initially reintroduce naturally spawning populations of Carson stock spring Chinook into Omak Creek on the Colville Reservation. The isolated harvest program will support selective fisheries in the Okanogan and Similkameen rivers, in the tailrace of Chief Joseph Dam and in the Wells Pool, and near the confluence of the Okanogan River. These fisheries will target the Carson-stock spring Chinook produced in the program.

The CJDHP spring Chinook program is an experimental program and includes mechanisms to identify any potentially adverse interactions with summer/fall Chinook, steelhead and Methow River spring Chinook populations, and to document the extent of tribal and recreational harvest. Information collected through monitoring and evaluation in the early phases of the program will be used to adapt and refine secondary phases of the program. Specifically, the information will be used to determine if the Carson stock spring Chinook should be replaced with the ESA-listed Upper Columbia River Spring Chinook, when surplus to needs in the Methow subbasin, to foster recovery of the species.

3. Critical Research Needs

The Master Plan also identifies research needs that are critical to Step 2 planning. The first critical study consists of radio-telemetry research to determine where and when summer/fall Chinook migrate, where they congregate, the extent to which they are spatially separated from other population components, and whether the timing of passage over Wells Dam is related to timing and location of subsequent spawning. This information is critical to the development of broodstock protocol and subsequent acclimation of progeny. The second research study is to test the viability of live-capture, selective fishing gear for local broodstock collection. The success of the live-capture, selective fishing methods will also be vital to controlling the ratio of hatchery to natural fish on the spawning grounds.

B. Major Project Review (The Three-Step Review process)

On May 26, 2004, the Colville Tribes submitted the Step 1 documents (i.e., master plan) initiating the Three-Step Review Process. The master plan is intended to address the conditions placed on this project as part of the major project review.[11]

On June 11, 2004 Council staff submitted to the ISRP the Step 1 documents received from the Colville Tribes. Due to the anticipated workload associated with the subbasin plan reviews, Council staff did not anticipate reviewing the Tribes' documents until the fall of 2004.

On January 12, 2005, the ISRP provided the Council with their review of the Chief Joseph Dam Hatchery Program Master Plan (ISRP Document 2005-02). The ISRP comments generally confirmed the content and the basis of the master plan for both the fall/summer and spring Chinook components. The ISRP made references to revising the master plan to accommodate its comments. The ISRP raised a series of items that need to be addressed as the project proceeds in its development. In summary the issues raised include the following:

- a specific time frame process (i.e., decision tree) that outlines the expected range of the production scenarios,
- additional discussion on the proposal as it relates to alternative forms of mitigation,
- additional detail regarding the proposal and the relationship to the BAMP (Biological Assessment and Management Plan[12]),
- better integration with other Council and basinwide documents (i.e., subbasin plans),
- providing the basic information regarding the in-basin and out-of-basin assumptions concerning survival, and
- specifics on methods, designs (including controls), and hypotheses need to be incorporated in the monitoring and evaluation plan.

The ISRP supported the need for the proposed Step 2 research projects: a radio telemetry study to better understand the migration and spawning timing of the Okanogan summer/fall Chinook, and a study to test and develop live-capture, selective fishing gear for collection of local broodstock.

[11] The Council (September 1997) adopted a policy that built upon the master plan element of the 1995 Program to ensure that 1) new artificial production projects would be considered by the Council while the Artificial Production Review was under way, 2) ensure that 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 was known as the "Three-Step Review." It called 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. On October 18, 2001, the Council adopted an updated review process called the Major Project Review process that incorporates the Three-Step Review process (Council document 2001-29).

[12] The Master Plan benefits from a foundation laid by development of the Habitat Conservation Plans (HCPs) developed among entities affected by three of the mid-Columbia PUD dams, Wells, Rocky Reach and Rock Island. The BAMP presents a plan for operation and evaluation of anadromous salmonid hatcheries in the Columbia River upstream of the Yakima River confluence. Although the BAMP has not been formally approved, it includes broadly supported genetic and ecological assessments of summer/fall Chinook, spring Chinook, sockeye and steelhead.

C. Issue Paper review and comments

On August 12, 2004, the Council approved and released the staff issue paper (Council Document 2004-09) for the project. The intent of this issue paper was to invite comment on the issue paper and the master plan. In particular, public comments on the key issues listed in this issue paper were requested. The Council invited comment on the issue paper at the September 9 and October 13, 2004, meetings and accepted written comments through October 15, 2004. The key issues focused on project's concept, genetic risk, subbasin planning, and spring Chinook component. The issue paper was not intended to constrain alternatives the Council may consider or limit Council action on this project, but to initiate dialogue with interested parties in the basin. One oral comment was received regarding this project at the October 13, 2004, meeting by the Northwest Regional Council of Carpenters. Written comments were received on October 6, 2004, from Alaska Resources and Economic Development, Inc.; October 14, 2004, from the City of Pateros; October 15, 2004 from the United States Department of Interior, Bureau of Reclamation, and Public Utility District No. 1 of Douglas County on October 18, 2004.

The oral comment made at the October 13, 2004, Council meeting was supportive of the project as outlined in the master plan and issue paper.

The Alaska Resources & Economic Development, Inc. (ARED, Inc.) provided comments regarding the impact of environmental factors on all the life stages of anadromous fish, and also provided suggestions regarding the use of their pending patent "moist incubation" system and "portable egg planter." The Council staff provided this information to the Confederated Tribes of the Colville Reservation but generally felt that the comments made by ARED, Inc. were helpful suggestions for the project as it develops. The one exception is associated with the comment raised regarding the life stages and the relationship to environmental factors. Though this comment is similar in nature to those raised by the ISRP (i.e., providing the basic information regarding the in-basin and out-of-basin assumptions concerning survival) the intent of ARED, Inc. raising it seems to put emphasis on their incubation and egg planter patents. Council staff feels that the environmental factors effect on the different life stages be dealt with in the sponsor's treatment of the issues raised by the ISRP in its Step 1 review document.

The City of Pateros was very supportive of the master plan and gave their complete support for the project to enhance the return of Chinook salmon. They were also supportive to either significantly improve the visitor center[13] on site or nearby to provide the much needed education on the subject of the existing threatened and endangered fish runs and the "Native American Culture." Council staff feels the comment regarding the visitor center from the City of Pateros addresses the existing COE visitor center and not the small visitor area in the hatchery's administration building as outlined in the CJDHP Master Plan. Since the existing visitor facility is not part of the master plan and that visitor facilities in the past are usually treated as a discretionary item it not expected that this item will be part of the future reviews.

The Bureau of Reclamation (BOR) provided supporting comments for the proposed hatchery. In addition they provided comments regarding the spring Chinook element of the program (i.e., spring Chinook stock, water right, and long-term O&M). These elements are very

[13] At the west end of the proposed hatchery site is a 13-acre COE visitor information and picnic area.

relevant to the spring Chinook program, and assurances will need to be provided by the sponsors as this project proceeds through future review processes.

The Public Utility District (PUD) No. 1 of Douglas County expressed specific technical concerns regarding the proposal. These included concerns about the emphasis on the production program on the Okanogan instead of the Columbia River. They also expressed concerns regarding the trapping operations proposed at Wells Dam on their operations and listed summer-run steelhead.

The technical concerns raised by the BOR and PUD will need to be addressed by the Colville Tribes. The Council staff and the Colville Tribes believe that most of the concerns require only clarifications.

ANALYSIS

On September 11, 2002, the Council recommended funding for Proposal #29040, *Develop and Propagate Local Okanogan River Summer/Fall Chinook.*[14] The Colville Tribe delivered, in a timely manner, the master plan as outlined in the proposal. The Council released the master plan for public comment, and also submitted the plan to the ISRP. Reviews and comments received to date are supportive, and any remaining issues remaining, if necessary, can be addressed as part of the Step 2 and 3 reviews.

In addition, the comments raised by the ISRP will be helpful in bringing the project to its greatest potential for contributing to the goals of the proposed project. Council staff view the ISRP's comments as supportive of the programs described in the master plan and feel that the additional items raised by the ISRP can be addressed as part of the Step 2 review.

It seems that the merits of the master plan and the conceptual program that it defines have been adequately reviewed and commented on to justify that the project can proceed to Step 2. This includes the spring Chinook component and its inclusion into the master plan remains appropriate for Step 2 planning and design activities.

I. Costs

The program requirements for this project appear to have been met. Master planning elements associated with the Step 1 review for major project reviews have been addressed. The ISRP review has found these efforts have adequately addressed the program, while noting several issues that will need to be addressed during preliminary design and reviewed as part of the Step 2 review.

The staff recommends that the Fish and Wildlife Committee approve the Chief Joseph Dam Hatchery Program Step 1 Master Plan. The program, including the spring Chinook component and the two research studies, is approved to proceed to implement Step 2 planning and preliminary design in Fiscal Year 2005. As part of this recommendation the staff

[14] The proposal is now titled *Chief Joseph Dam Hatchery Program*, and is implement through Project # 2003-023-00.

recommends an additional $349,000 in capital funds be provided to the project's Fiscal Year 2005 budget to proceed with Step 2 activities and to initiate the two research studies. It is understood that these cost are in addition to the capital funds recommended as part of the Council's Fiscal Year 2005 start-of-year planning budget of $575,000. All additional out-year costs (e.g., planning, final design, construction, O&M and M&E) will be further defined at the time of the Step 2 decision anticipated in the summer or fall of 2006. It is also understood that Bonneville through contracting, and the Colville Tribes, will ensure that during the next planning phase will evaluate alternatives that optimize cost and performance while still ensuring compliance with master plan goals, objectives and requirements.

II. Major Project Review Elements

The program requirements for this project appear to have been met. Master planning elements have been addressed. ISRP step review has found these efforts have adequately addressed the program, while noting following issues that will need to be addressed during preliminary design and reviewed as part of the Step 2 review:

- a specific time frame process (i.e., decision tree) that outlines the expected range of the production scenarios,
- additional discussion of the proposal as it relates to alternative forms of mitigation,
- additional detail regarding the proposal and the relationship to the BAMP (Biological Assessment and Management Plan)[15],
- better integration with other Council and basinwide documents (i.e., subbasin plan),
- providing the basic information regarding the in-basin and out-of-basin assumptions concerning survival, and
- specifics on methods, designs (including controls), and hypotheses need to be incorporated in the monitoring and evaluation plan.

Staff believes that it is important to fully address these issues to minimize and eliminate unreasonable risk. Therefore, staff recommends that the Fish and Wildlife Committee call for additional information be developed that fully addresses the issues raised by the independent peer review for consideration during the step 2 review.

III. Artificial Production Review and Evaluation

The findings of the Artificial Production Review Evaluation (APRE) and various reviews of subbasin plans outline the need to clarify hatchery objectives and to better integrate artificial production programs with subbasin plans.

As part of the Step 1 review the sponsors fully addressed the 10 policies of the Artificial Production Review report and recommendations (Council Document 1999-15). It is anticipated

[15] The Master Plan benefits from a foundation laid by development of the Habitat Conservation Plans (HCPs) developed among entities affected by three of the mid-Columbia PUD dams, Wells, Rocky Reach and Rock Island. The BAMP presents a plan for operation and evaluation of anadromous salmonid hatcheries in the Columbia River upstream of the Yakima River confluence. Although the BAMP has not been formally approved, it includes broadly supported genetic and ecological assessments of summer/fall Chinook, spring Chinook, sockeye and steelhead.

that production associated with this proposal will be reviewed in a future technical exercise that would attempt to integrate subbasin plans with artificial production and harvest needs and quantify population objectives at the subbasin, provincial and basin levels.

IV. Subbasin Planning

The Okanogan Subbasin plan was submitted for review on May 28, 2004, after the submission of the CJDHP Master Plan, and has preliminary public comment and reports from the ISRP. The Council anticipates that subbasin plans will be adopted into the Council's program in 2005.

The incorporation of Chief Joseph Dam Hatchery Program goals and objectives by the subbasin plan is an important consideration as the Council moves through the adoption process for the plans. The project's goals and objectives are well established at this point and have been generally supported through independent scientific review. The Okanogan Subbasin Plan currently reflects the goals, objectives and the biological basis of the CJDHP. The staff expects that, as part of the subbasin approval process, the Council will need to decide how the artificial production element of the Okanogan Subbasin Plan supports the proposed Chief Joseph Dam Hatchery Program.

ALTERNATIVES

I. Reject funding for Step 2 (preliminary design) activities

The Council could opt to terminate funding for the project and the proposed preliminary design activities and research elements at this time. This might be based on unacceptable costs or biological risk. While costs may be significant, benefits to tribal and non-tribal publics and to the extensive efforts by the proponents to increase the abundance, distribution, and diversity of naturally spawning populations of summer/fall Chinook salmon in the Okanogan River and in the Columbia River above Wells Dam, and to reintroduce extirpated spring Chinook, will be realized. In addition, this project for this stage in its development has gone through extensive review, and it appears that biological concerns can be addressed. For these reasons, staff does not recommend this alternative.

II. Require Further Review to Address Unanswered Concerns

The Council could decide that there still are significant concerns and residual risks that are unacceptable that need to be further addressed until a decision is made regarding the master plan. This could be due to the implications of this project to the subbasin planning effort and the possible next phase of the program amendment proceedings. It could also relate to the priority of this project to others in the anticipated future project selection process. It may also be appropriate to require that this artificial production initiative be postponed until the outcome of the Artificial Production Review Evaluation is exercised on this project and the Chinook populations that it is addressing.

Staff believes that the current reviews, compliance efforts, and designs to date have addressed the types of concerns noted above sufficiently enough to initiate preliminary designs and research elements. Therefore, staff does not recommend this alternative to postpone a decision on the master plan, staff believes all issues can be appropriately addressed as part of future reviews.

III. Support only Research Elements

The master plan outlines research needs that are critical to Step 2 planning. The first study consists of radio-telemetry research to determine where and when summer/fall Chinook migrate, where they congregate, the extent to which they are spatially separated from other population components, and whether the timing of passage over Wells Dam is related to timing and location of subsequent spawning. This information is critical to the development of broodstock protocol and subsequent acclimation of progeny. The second research study is to test the viability of live-capture, selective fishing gear for local broodstock collection. The success of the live-capture, selective fishing methods also will be vital to controlling the ratio of hatchery to natural fish on the spawning grounds. The Council could choose to delay any additional design and planning activities (e.g., environmental review) associated with this project until these research elements are evaluated and the outcome of the research is incorporated into the planning design.

Based on the performance of this project to date, Council staff is confident that the Step 2 elements can develop concurrent to the research elements, and that detailed contracting measures will avoid undue risk.

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