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December 1, 2005

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch, Project Implementation Manager

SUBJECT: Discussion of major project review process

PROPOSED ACTION:

At your meeting on December 14, 2005 the Council staff will review the current review process (see Attachment 1) used as a sequenced review process for complex projects. As part of the presentation the staff will discuss possible updates and improvements to this tool. This agenda item will be for review and discussion only and no decisions will be made. Council staff anticipates bring an updated review process back to the Committee and the Council at a later date for a recommendation.

Attachment 1: Review Process as approved by Northwest Power Planning Council on October 18, 2001.

I. Major Project Review

A. Introduction

Any new project funded through the Council's Columbia River Basin Fish and Wildlife Program must be thoroughly reviewed in advance to ensure its design, construction and proposed operations are compatible with the environment and consistent with financial planning for the subbasin where it is located and the Columbia Basin as a whole. This is particularly important for new artificial production programs and facilities. Cost-effectiveness, National Environmental Policy Act (NEPA) documentation, ecological interactions, and consistency with other plans are some of the issues that must be explored before a responsible decision can be made about the soundness of starting a new major artificial production project in a specific subbasin. The Council's fish and wildlife program has a history of requiring a detailed "master plan" to address such issues in the absence of a National Environmental Policy Act (NEPA) document that provided enough information to evaluate major construction projects, such as new artificial production initiatives.

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," with this exception:

"To prevent a complete moratorium on new production, the ISRP recommends that the Council permit funding for an individual project only if the project proponents can demonstrate they have taken measures 7.0D, 7.1A, 7.1C, and 7.1F into account in the program design and the Council concurs. To ensure that standard is met, the individual projects should be funded only after a positive recommendation from an independent peer review panel."

Those specific sections of the Council's 1995 Program directed that new artificial production programs should account for or address information being developed in 1) a comprehensive analysis of federal fish hatchery activities that was under way at the time¹ (7.0D), 2) an evaluation of salmon survival in the Columbia River, the estuary and the near-shore ocean

¹ *Draft Programmatic Environmental Impact Statement: Impacts of Artificial Salmon and Steelhead Production Strategies in the Columbia River Basin*, Columbia Basin Fish and Wildlife Authority for the U.S. Fish and Wildlife Service, National Marine Fisheries Service and Bonneville Power Administration, Portland, Dec. 10, 1996.

plume (7.1A), 3) an inventory of population status, life history and other data on wild and naturally spawning salmon populations (7.1C), and 4) an evaluation of the cumulative and systemwide impacts of then-existing and proposed artificial production activities on the ecology, genetics and other important characteristics of Columbia River Basin anadromous and resident fish (7.1F).

B. Three-Step Review Process

The federal hatchery analysis, completed in December 1996, took the form of a Columbia basinwide programmatic environmental impact statement (EIS) and as such, did not address specific hatchery programs or their impacts on specific populations or on the basin as a whole. Nor did the federal EIS recommend specific policies for future hatchery operations.

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 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 (NEPA and ESA) 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.

Originally the three-step review was developed as an interim process until the Artificial Production Review (APR) was completed (Document 99-15). The 2000 Program adopted the APR and defined an initial and five-year review to ensure consistency with the strategies, scientific principles, and policies defined in the APR. The initial evaluation will be completed by January 2004, and reform measures are anticipated to be initiated by July 2006. Until then, the step review process will continue to assess the scientific foundation, feasibility, and cost-effectiveness of artificial production initiatives.

C. Major Project Review Approach

The Council has found that the step review process has provided an orderly way to develop complex and large projects. Linking environmental review (i.e. NEPA) and funding commitments to specific phases has 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. Though this is not a new planning concept, and is consistent with industrial planning standards, the Council sees a need to clearly define and expand the process.

Though the step review process has thus far been limited to artificial production initiatives, other major projects currently existing and contemplated for the future could benefit. There are very substantial habitat initiatives, water optimization projects, and others that would benefit from the same type of stepped review and approval process as it has for artificial production projects. This is because they are often approved for initial funding with only a conceptual level of information. In addition, the emphasis on habitat protection, mitigation and restoration is central to the 2000 Program and Columbia Basin, and activities associated with habitat projects are becoming more costly and complex. Extension of the stepped review and approval concept to other major and costly initiatives will provide the same positive benefits to the development of habitat projects as it has for artificial production initiatives. By providing a sequential decision-making process for habitat initiatives, the Council can ensure that these projects also maintain their original intent and scope.

The Council believes that the substantive elements of the step review could be improved by the 2000 Program and will continue to provide the needed incremental points for the decision-makers to ensure scope and intent during the evaluation of the major project initiatives in the basin. This revision of the review process also allows the review process to be refined and clarity provided regarding the existing steps and the deliverables and details associated with each. The following sections provide the project review triggers, review process and schedule, design development definition, and review elements for the major project review process.

II. Types of Projects Requiring the Review Process

In order to determine what proposal requires a review process, the following triggers have been developed. When the Council recommends a proposal, it will also identify which of the following triggers applies to direct the project into the step review. The goal in making that finding and statement at the time the Council recommends a project is to clearly articulate whether or not the proposal will be subject to the three-step review process.

A. Artificial Production Initiatives

Production initiatives will trigger a review when a project proposes any one of the following: (a) construct significant new production facilities; (b) begin planting fish in waters they have not been planted in before; (c) increase significantly the number of fish being introduced; (d) change stocks or the number of stocks, and/or (e) change the location of production facilities. It also includes initiation of funding existing facilities that were formerly funded otherwise.

B. Other Project Initiatives

Other project initiatives will trigger a review when a project proposes to: (a) construct a facility that costs more than \$250,000 during the fiscal year; (b) phased engineering designs are required for contractual purposes; (c) proposed actions address the entire watershed; (d) action is

a multi-agency and multi-contractual effort, and/or (e) the action is a substantial deviation from a subbasin summary or subbasin plan.

III. Design Development Definition for Construction

As a capital construction project develops from a conceptual to final design, more detail and understanding is generated that can be analyzed. Several stages in this process can be identified and used by decision makers to ensure scope, intent and accuracy of cost. In adopting the major review process, the Council identified three convenient stopping points (i.e. steps). These steps in the developmental phase are far enough apart in the design/planning process to allow a meaningful amount of progress to take place, so that efforts are not restrictive, and still close enough to provide choices to be made before effort is expended on unrealistic or unrealized goals. These phases are in the following table.

Development Phase	Design Phase	Variance Expected²
Step 1	Conceptual/Preliminary	+/- 35 to 50 %
Step 2	Progress Review	+/- 25 to 35 %
Step 3	Detailed/Final	+/- 10 to 15 %

The conceptual/preliminary phase (Step 1) can be considered largely the feasibility stage that is important in identifying all major components and elements and includes the initial attempts at laying out the components on the chosen site or proposal. Approximate structure size and layouts are presented, with rough plans and elevations, general electrical and piping layouts are identified, but with little detail. Cost estimates are general and often are based on costs from previous projects and comparable construction costs.

The progress review phase (Step 2) should identify any major difficulties in the design and proposal. At this point the proposal should provide the detail and the specifics to assure that all details will meet the intent and scope of the previous decision and ensure financial responsibility. In addition environmental review has been completed and any changes after this point should be minor.

At the detailed/final phase (Step 3) the design is ready to go out to bid. A detail and exhaustive review has been carried out, to assure that all details will meet operational requirements. The 100 percent cost estimate represents the best available estimate of construction costs for the project. A general contingency of 10 percent to 15 percent is specified as a line item in the cost estimate as a general contingency to cover unforeseen problems that may be encountered during construction.

IV. Review Process and Schedule

² Degree of variance at each phase will be dependent on the size and complexity of the project.

The review process will include an independent scientific review of the project sponsor's answers to the review elements listed below. Depending on the nature of the proposed project a combination review may occur and address all relevant review elements in one submittal. For more complex and costly proposals a multiple phase review (i.e. Step 1, 2 and 3)³ would be more appropriate. This would entail a review of a submitted document (e.g. master plan) and the associated supporting information, and additional reviews that would include preliminary and detailed/final designs, remaining review elements, environmental review and answers to technical questions requested during the previous reviews.

Review periods for project submittals can vary depending on the circumstances and nature surrounding any specific project. Generally the review schedule for the Step 1 process is 18 weeks (attachment I), and Step 2 and 3 reviews, and combination reviews (i.e. all elements reviewed) is nine weeks (attachment II). Due to the needed alignment to the Council's Fish and Wildlife Committee and Council meetings, this schedule is based on the minimum amount of time required. Council staff will review the results of the peer review with the project proponents and make recommendations to the Council.

V. Review Elements

An important part of the major project review process will include an independent scientific review of the responses to the technical elements listed below. The Council is looking for a full explanation of how the project is consistent with these elements. These elements reflect and refer to specific elements delineated under relevant sections in the fish and wildlife program (e.g. artificial production and subbasin assessment protocols). In addition, the independent scientists reviewing the project in the future will be applying these or similar standards as a reflection of the current state of the science. In addition, these elements may be supplemented with issues raised in previous reviews.

A. All Projects

All projects are expected to:

- address the relationship and consistencies of the proposed project to the eight scientific principles (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section B.2) (Step 1)
- describe the link of the proposal to other projects and activities in the subbasin and the desired end-state condition for the target subbasin (Step 1)

³ The reviews for a specific project will be established during fiscal and provincial reviews. Generally, the steps for these projects will be based on the phase of the step process as follows: Step 1 -- conceptual planning, represented under the program primarily by master plan development and approval; Step 2 -- preliminary design and cost estimation, and environmental (NEPA and ESA) review; and Step 3 -- final design review prior to construction and operation.

- define the biological objectives (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section C.2 (1) and (2), and Technical Appendix) with measurable attributes that define progress, provide accountability and track changes through time associated with this project (Step 1)
- define expected project benefits (e.g. preservation of biological diversity, fishery enhancement, water optimization, and habitat protection) (Step 1)
- describe the implementation strategies (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section D.2) as they relate to the current conditions and restoration potential of the habitat for the target species and the life stage of interest (Step 1)
- address the relationship to the habitat strategies (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section D.3) (Step 1)
- ensure that cost-effective alternate measures are not overlooked and include descriptions of alternatives for resolving the resource problem, including a description of other management activities in the subbasin, province and basin (Step 1)
- provide the historical and current status of anadromous and resident fish and wildlife in the subbasin most relevant to the proposed project (Step 1)
- describe current and planned management of anadromous and resident fish and wildlife in the subbasin (Step 1)
- demonstrate consistency of the proposed project with National Marine Fisheries Service recovery plans and other fishery management and watershed plans (Step 1)
- describe the status of the comprehensive environmental assessment (Step 1 and 2)
- describe the monitoring and evaluation plan (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section D.9) (Step 1, 2 and 3)
- describe and provide specific items and cost estimates for 10 Fiscal Years for planning and design (i.e. conceptual, preliminary and final), construction, operation and maintenance and monitoring and evaluation (Step 1, 2 and 3)

B. Artificial Production Initiatives

Artificial production initiatives are expected to:

- address the relation and link to the artificial production policies and strategies (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section D.4 and Technical Appendix) (Step 1)
- provide a completed Hatchery and Genetic Management Plan (HGMP) for the target population (s) (Step 1)

- describe the harvest plan (see 2000 Columbia River Basin Fish and Wildlife Program, Basinwide Provisions, Section D.5) (Step 1)
- provide a conceptual design of the proposed facilities, including an assessment of the availability and utility of existing facilities (Step 1)
- provide a preliminary design of the proposed facilities (Step 2)
- provide a final design of the proposed facilities, including appropriate value engineering review, consistent with previous submittal documents and preliminary design (Step 3)

C. Other Project Initiatives

Other major project initiatives are expected to:

- provide a conceptual design of the proposed strategies and/or facilities (Step 1)
- provide a preliminary design of the proposed strategies and/or facilities (Step 2)
- provide a final design of the proposed strategies and/or facilities, including appropriate value engineering review, consistent with previous submittal documents and preliminary design (Step 3)

Attachment I: Schedule for the Step 1 Review Process

Week⁴	Description
1 (Monday)	Proponents submits Master Plan to NPPC and Bonneville
1 – 2	NPPC staff review
2 (Monday)	Bonneville/NPPC initiates peer review with the ISRP
2 (Wednesday)	NPPC staff comments regarding master plan and draft issue paper to Fish and Wildlife Committee (packet)
3 - 7	Additional materials provided to the ISRP, if necessary
3 (Tuesday)	NPPC Fish and Wildlife Committee reviews the master plan and draft issue paper
5 (Wednesday)	Fish and Wildlife Committee recommendation to Council (packet)
6 (Wednesday)	NPPC considers releasing master plan and issue paper for review and comment
8 (Friday)	ISRP findings submitted to NPPC
9 (Wednesday)	NPPC takes comments on master plan and issue paper at Council Meeting
12 (Wednesday)	NPPC takes comments on Master plan and Issue Paper at Council meeting
12 (Friday)	Due date for all written comments on master plan and issue paper
13-14	NPPC staff prepares a summary of comments and potential alternatives for decision
14 (Wednesday)	NPPC staff provides summary of comments and potential alternatives to Fish and Wildlife Committee to consider recommendation (packet)
15 (Tuesday)	Fish and Wildlife Committee considers potential alternatives for recommendation
17 (Wednesday)	NPPC staff provides decision memo with Fish and Wildlife Committee recommendation to Council (packet)
18 (Wednesday)	Council considers approval of master plan

⁴ Due to the needed alignment to the Fish and Wildlife Committee and Council meetings, this schedule is based on the minimum amount of time required

**Attachment II: Schedule for the Step 2, 3 and Combined
Review Processes**

Week⁵	Description
1 (Monday)	Proponents submit to NPPC and Bonneville information and responses for technical questions as they relate to the appropriate step
1	NPPC staff review
2 (Monday)	Bonneville/NPPC initiates peer review with the ISRP
3 (Monday)	Additional materials provided to the ISRP, if necessary
4 (Friday)	ISRP review findings submitted to NPPC staff
5 (Wednesday)	NPPC staff provides draft version of potential alternatives for recommendations (packet)
6 (Tuesday)	Fish and Wildlife Committee considers potential alternatives for recommendation to Council
8 (Wednesday)	NPPC staff provides decision memo with Fish and Wildlife Committee recommendation to Council (packet)
9 (Wednesday)	Council considers approval of project step

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⁵ Due to the needed alignment to Fish and Wildlife Committee and Council meetings, this schedule is based on the minimum amount of time required.

Major Project Review

December, 2005

Background

- 1997 - Artificial Production Review
- Fiscal Year 1998 recommendation by ISRP
- Council adopted an interim approach late in Fiscal Year 1997 – Three Step Review Process

Steps - Decision Points

Sequenced Review

Step 1 - Science Milestone

- Approval of master plan

Step 2 - Fiscal Milestone

- Preliminary design and cost
- NEPA compliance
- ESA review

Step 3 - Final Milestone

- Final design and cost

Triggers for Review

- Construct new production facilities
- Begin planting fish in waters not planted before
- Increase significantly the number of fish being introduced
- Change stocks or the number of stocks
- Change the location of the production facility
- Funding existing facilities not formerly funded

Areas Addressed by Review

- Master planning - Section 7.4B 1994 Program
- Questions identified in the FY 1998 AIWP
- Questions by the ISRP in 1998
- Development schedule and estimated costs
- APR policies and standards
- Project Specific Questions

Peer Review and Decision

- Pacific Northwest National Laboratory through Fiscal Year 1999
- Currently ISRP
- 9 to 18 week review period
- Feedback Mechanism
- Preliminary Recommendation (staff)
- Fish and Wildlife Committee Approval
- Council Recommendation

Major Project Review

- Adopted in October 2001
- Revision of technical questions and reflect the new Program
- Decision making process (not just an interim process)
- Expand to other substantial and complex initiatives
- Ensure approved scope and intent
- Financial responsibility

Need for Review and Update

- Reflect adopted subbasin plans
- Address ISRP comments
- Revise review elements
- Provide more detail to value engineering and cost tracking