Northwest Power and Conservation Council

February 8, 2005

MEMORANDUM

TO: Fish and Wildlife Committee Members

FROM: Mark Fritsch, Project Implementation Manager

SUBJECT: Staff Issue Paper - Klickitat Subbasin Anadromous Fishery Master Plan

Please find attached the draft cover letter and issue paper for the master plan associated with the proposal titled "Klickitat Subbasin Anadromous Fishery Master Plan." The master plan and support documents, received on November 12, 2004 from the Yakama Nation are intended to address the conditions placed on this project as part of the Major Project Review process.[1]

The draft cover letter and issue paper are intended to solicit public comment, as part of the review of a master plan, by the ISRP and Council. At your meeting next week Council staff will present a review of the proposal and issue paper. The Council staff is anticipating taking your recommendation to the full Council in March to consider the release of the issue paper and master plan for public comment.

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[1] 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).

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Steve Crow
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Northwest Power and Conservation Council

(draft version February 8, 2005)

Dear Interested Party:

For Fiscal Year 2001, projects in the Columbia Gorge Province were subject to the in-depth province-based review. This province includes the Klickitat subbasin. The primary fish and wildlife management activities in the Klickitat subbasin have been passage and artificial production initiatives dating back to the early 1950s. Most of this work was funded by sources other than Bonneville, with Mitchell Act funding being a substantial fund source. More recently, Bonneville funding has been provided to the activities in the Klickitat as a component of the Yakama Nation's Yakima-Klickitat Fisheries Project.

As part of the Council decision for the Columbia Gorge Province, the Council staff worked with the Yakama Nation fisheries staff to outline a review sequence encompassing the proposed passage and production facilities.[1]

A master plan, as the first step in the Major Project Review process[2] for this project, was prepared by the Yakama Nation and the Bonneville Power Administration and submitted to the Council on May 11, 2004. The tribal master plan proposes supplementation and natural production efforts in the Klickitat subbasin on spring chinook and steelhead, while maintaining a

[1] The proposals listed (#198811525, #198812025, #199506325 and #199701725) all link to new production initiatives by construction of significant new production facilities (i.e., Lyle Falls Broodstock Collection and Adult Monitoring Facility) and the initiation of funding of an existing facility (i.e., Klickitat Hatchery). Until completion and approval of the step review, all activities associated with these projects should be funded for this specific task. The master plan (Step 1) will describe the comprehensive plan for all species of interest including assessment plans and the design of the supplementation strategy as requested by the ISRP (ISRP Document 2000-9).

[2] 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).

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focus on harvest augmentation for fall chinook and coho. In doing so, the project would increase production of spring chinook and steelhead at the Klickitat Hatchery and eliminate in-basin artificial production of coho. In-basin fall chinook production levels would remain the same, but half the production would be transferred from Klickitat Hatchery to a proposed new facility at Wahkiacus. The program proposes further improvements to existing facilities that would increase the ability of spring chinook and steelhead to access high quality habitat, thus improving natural production; and that would allow collection of spring chinook and steelhead broodstock to meet supplementation goals for those two species.

Council staff has prepared an issue paper on the master plan that can be found on the Council's web site, www.nwcouncil.org. The Council invites comment on this issue paper and on the master plan. In particular, public comment is requested on key issues listed in the issue paper. The issue paper is not intended to constrain alternatives the Council may consider or limit Council action on this project. Copies of the issue paper are available by calling the Council's central office in Portland (1-800-452-5161) and requesting Council Document 2005-??.

Oral comments on this issue paper can be made at the Council's April 12 - 14, 2005, meeting in Boise, Idaho, and at the Council's May 10 - 12 meeting in Walla Walla, Washington. Written comments will be accepted through May 13, 2005. Comments should be mailed to Mark Walker, Director of Public Affairs, at the Council's central office in Portland and referencing Council Document 2005-??. In addition, the master plan has been submitted to the Independent Scientific Review Panel (ISRP), and this review is anticipated in April. Based on comments and reviews received, Council staff will develop a list of alternative actions that will be considered by the Council. At the July 12 - 14, 2005 meeting in Portland the Council will consider whether to approve the Klickitat Subbasin Anadromous Fishery Master Plan (see attachment).

Thank you for your interest in the Council's review of this project.

Sincerely,

Stephen L. Crow
Executive Director

Step 1 Review Process - Klickitat Subbasin Anadromous Fishery Master Plan

Week[3]	Description
1 (November 12, 2004)	Yakama Nation submits revised Master Plan to NPCC
2 (November 18, 2004)	BPA/NPCC initiates Peer Review
13(February 8, 2005)[4]	NPCC staff Comments regarding Master Plan and draft Issue Paper to Fish and Wildlife Committee (packet)
2- 14	Additional materials provided to Peer Review, if necessary
14 (February 15, 2005)	NPCC Fish and Wildlife Committee reviews the Master Plan and draft Issue Paper
14 (February 18, 2005)	Peer Review findings submitted to NPCC
17 (March 8, 2005)	Fish and Wildlife Committee Recommendation to Council (packet) regarding draft Issue Paper
18 (March 15 - 17, 2005)	NPCC considers releasing Master Plan and Issue Paper for review and comment
22 (April 12 - 13, 2005)	NPCC takes comments on Master Plan at Council Meeting
26 (May 10 - 12, 2005)	NPCC takes public comments at Council Meeting
26 (May 13, 2005)	Due date for all written comments on Master Plan
23-30	NPCC staff prepares a summary of comments and potential alternatives for decision
30 (June 7, 2005)	NPCC staff provides summary of comments and potential alternatives to Fish and Wildlife Committee to consider recommendation (packet)
31 (June 14, 2005)	Fish and Wildlife Committee considers potential alternatives for recommendation
34 (July 5, 2005)	NPCC staff provides Decision Memo with Fish and Wildlife Committee recommendation to Council (packet)
35 (July 12 - 14, 2005)	Council considers approval of Master Plan

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[3] Due to the needed coordination with Fish and Wildlife Committee and Council meetings, this schedule is based on the minimum amount of time required.

[4] Due to the December '04 Council agendas with subbasin plans and the backlog of reviews for the ISRP, this period of the schedule was extended.

Northwest Power and Conservation Council

ISSUE PAPER

Klickitat Subbasin Anadromous Fishery Master Plan[1]

(draft version February 8, 2005)

Council Document 2005-??

[1] The master plan was prepared for Bonneville Power Administration by the Yakama Nation (Project # 1988-115-35, *YKFP - Klickitat Design and Construction*). You may obtain a copy of the master plan and support documents from Bonneville Power Administration's web site. http://www.efw.bpa.gov/
The document can be viewed or downloaded for printing. If you do not have access to the Internet, please call David Byrnes at 503-230-3171.

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Staff Issue Paper[2]

Klickitat Subbasin Anadromous Fishery Master Plan

I. Introduction

The master plan, submitted by the Yakama Nation, is intended to provide information to address passage improvements and upgrading existing production facilities (i.e., Klickitat Hatchery) in the Klickitat subbasin to implement an artificial production program (supplementation and augmentation) for spring Chinook, fall Chinook, coho salmon, and steelhead. Spring Chinook and steelhead production is aimed at increasing natural spawners (i.e., supplementation), while the coho and fall Chinook elements are primarily aimed at augmenting harvest opportunities.

In addition to proposed artificial production facility upgrades, the program proposes improvements to existing passage facilities that would increase the ability of spring Chinook and summer steelhead to access additional habitat, thus improving natural production, and allow for the collection of spring Chinook and steelhead broodstock to meet supplementation goals as well as additional monitoring associated with these two species. The proposed monitoring and evaluation elements of the master plan are designed to use, to the maximum extent possible, work that is being or has been done in other basins on key issues (e.g., research from the Yakima subbasin), such as domestication selection and ecological interactions, that remain the subject of scientific debate on supplementation.

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

The primary fish and wildlife management activities in the Klickitat subbasin have been passage and artificial production initiatives, dating back to the early 1950s. Most of this work was funded by sources other than Bonneville, with Mitchell Act funding being a substantial fund source. More recently, Bonneville funding has been dedicated to the Klickitat as a component of the Yakama Nation's Yakima-Klickitat Fisheries Project (YKFP)[3]. To date, most of that Bonneville funding has been directed toward planning and analysis. There has been Bonneville funding of a riparian and in-channel habitat project since 1997 (now titled Klickitat Watershed Enhancement Project - KWEP, Project #1997-056-090). This project has focused on tributaries to the Klickitat River.

For Fiscal Year 2001, projects in the Columbia Gorge Province were subject to the in-depth province-based review. This province includes the Klickitat subbasin. The primary fish and wildlife management activities in the Klickitat subbasin have been passage and artificial production initiatives dating back to the early 1950s. As described in the subbasin summary, the major plans driving the management approach within the Klickitat are artificial production agreements in the U.S. v. Oregon forum and the Klickitat component of the YKFP project. The

[2] This issue paper was prepared by the staff of the Northwest Power and Conservation Council.

[3] The YKFP was first approved by the Council in 1982. At that time, the Council envisioned the Project as a cluster of production facilities in both the Yakima and Klickitat River Basins designed to enhance the fishery for the Yakama Indian Nation and other harvesters.

subbasin summary describes the Klickitat fisheries enhancement element of the YKFP as "qualitatively different than its sister program in the Yakima." That is, the Klickitat component was still relatively new, it contains a major harvest augmentation element, and basic elements of the supplementation plan (for spring Chinook and steelhead), monitoring plan, and watershed assessment are still being developed.

The Yakama Nation proposes to complete the design phase of passage improvements at Lyle Falls and upgrade existing production facilities in the Klickitat subbasin to implement an artificial production program (supplementation and augmentation) for spring Chinook, fall Chinook and coho salmon and steelhead. Spring Chinook and steelhead production is aimed at increasing natural spawners (i.e., supplementation), while the coho and fall Chinook elements are primarily aimed at augmenting harvest opportunity (YKFP-Klickitat Design and Construction, Project #1988-115-35).[4] The riparian and in-channel habitat project was proposed to continue, as well.

The details of the proposal submitted by the Yakama Nation for funding in Fiscal Years 2001 to 2003 addressing passage improvements and upgrading existing production facilities include the following:

- Completion of final design for passage improvements, and adult broodstock collection and monitoring facilities at Lyle Falls near the mouth of the Klickitat River;
- Completion of final design to repair and improve the existing fish ladder at Castile Falls in the upper part of the Klickitat River;
- Upgrades of the water supply and additional facilities at the Klickitat Hatchery, currently funded by the National Marine Fisheries Service with Mitchell Act Funds and operated by the Washington Department of Fisheries. The hatchery would be managed by the Yakama Nation for YKFP production objectives.
- Construction of one on-site acclimation facility at the Klickitat Hatchery and construction of four additional acclimation sites elsewhere in the subbasin.

The Klickitat Hatchery and the existing passage facilities at Lyle and Castile Falls were originally funded through the Mitchell Act. NOAA Fisheries provided flood damage repair funds that allowed repairs to the Castile Falls fishway but not upgrades proposed at Lyle Falls.

The Yakama Nation project proposal recommends that Bonneville augment existing Mitchell Act operation and maintenance of the passage facilities and implement the upgrades proposed for the Klickitat Hatchery as well as Yakama Nation management of the supplementation program[5]. The Yakama Nation also recommends increased Bonneville funding for the ongoing habitat restoration project.

The Independent Scientific Review Panel (ISRP) during the Columbia Gorge Province review expressed a number of concerns about implementing the Yakama Nation's artificial

[4] As part of the Columbia Gorge Province the project was reviewed as *Yakima/Klickitat Fisheries Project Design and Construction*, Project # 1988-115-25.

[5] NOAA Fisheries, through annual appropriations to the Mitchell Act funds operating and maintenance (O&M) on the order of $521,379 (Fiscal Year 2005 Klickitat Hatchery O&M) and 416,962 (Fiscal Year 2005 Castile and Lyle Falls (O&M).

production objectives. Its rating of "fundable" was conditioned upon having its concerns addressed in further review. The ISRP anticipated that its concerns about implementing the Klickitat production program as proposed would be addressed in the Council's Three-Step Review process for artificial production projects and return to the ISRP for further review.

As part of the Council decision on March 16, 2001, for the Columbia Gorge Province, the Council outlined a three-step review sequence encompassing the proposed passage and production facilities.[6] This sequence, proposed to be completed within the near future, is a reasonably optimistic schedule considering National Environmental Policy Act requirements and other necessary reviews. The actual schedule also depends on completion of an agreement between the Yakama Nation and the Washington Department of Fish and Wildlife for transfer or co-management of the Klickitat Hatchery.[7]

Using the three-step review process, the entire program will return to the Council, with the recommendations of the ISRP, for decisions to continue planning, design and to proceed with construction at key planning milestones. These reviews will also define long term operation, maintenance and monitoring costs. The Council specifically intends this guidance to mean that master planning and NEPA review must be completed before the Council will consider recommending project construction funding.

III. Historical and Current management of Fish in the Subbasin[8]

The Klickitat River subbasin supports two species of Pacific salmon, Chinook (*Oncorhynchus tshawytscha*) and coho (*Oncorynhcus kisutch*), as well as steelhead (*Oncorhynchus mykiss*). These three species of anadramous fish are composed of six stocks: three Chinook (spring, early run fall [tule], late run fall [upriver bright]); two steelhead (summer, winter); and one coho stock. Spring Chinook and summer steelhead are known to have existed historically in the watershed; winter steelhead ("discovered" in the early 1980s) are presumed to have existed historically. Steelhead are part of the Mid-Columbia Evolutionarily Significant Unit (ESU), which has been listed as threatened under the Endangered Species Act.

Tule fall Chinook and coho are not native to the Klickitat. They were introduced in the late 1940s and early 1950s, with the Washington Department of Fisheries Hatchery, and construction of the fishway at Lyle Falls (1952).

All salmon stocks, except possibly winter steelhead, have been augmented or even sustained by the Klickitat Hatchery. Completed in 1952, the hatchery is located on the Klickitat River at RM 42.4. The hatchery was constructed and is currently operated by the Washington

[6] The proposals listed (#198811525, #198812025, #199506325 and #199701725) all link to new production initiatives by construction of significant new production facilities (i.e., Lyle Falls Broodstock Collection and Adult Monitoring Facility) and the initiation of funding of an existing facility (i.e., Klickitat Hatchery). Until completion and approval of the step review, all activities associated with these projects should be funded for this specific task. The master plan (Step 1) will describe the comprehensive plan for all species of interest including assessment plans and the design of the supplementation strategy as requested by the ISRP (ISRP Document 2000-9).

[7] On June 2, 2003, a Memorandum of Understanding (MOU) was completed that describes the proposed transfer of ownership and operational responsibility of the Klickitat Hatchery and the Lyle Falls and Castile Falls fishways from the Washington Department of Fish and Wildlife to the Confederated Tribes and Bands of the Yakama Nation.

[8] Klickitat Subbasin Plan, 2004.

Department of Fish and Wildlife for hydropower mitigation under the Mitchell Act of 1936. The *U.S. v. Oregon* Columbia River Fish Management Plan (1998) governs fish production at this facility.

Hatchery production dominates natural production of Chinook and coho. Four million eyed eggs of fall "upriver bright" (URB) Chinook stock are delivered annually to the Klickitat Hatchery from Priest Rapids and Lyons Ferry hatcheries for final rearing and on-station release into the Klickitat River. The purpose of the URB release is to provide ocean, Columbia River, and terminal fishery for tribal and other fishers. A total of 3.85 million coho smolts are also released into the Klickitat River annually, approximately 1 million smolts are reared at the Klickitat Hatchery for an on-station release. The remaining 2.5 million are released directly into the river at several locations downstream of the Klickitat Hatchery. Recent attempts have been made to develop and test coho acclimation sites in the lower basin. To date acclimation sites have been tested for 600,000 of the direct-released coho, which also provide for a late fall terminal fishery.

Pacific lamprey (*Lampetra tridentatus*) is another anadromous species of interest and cultural importance in the Klickitat subbasin, although historic and present distribution and status are relatively unknown. Fine sediment delivery from the Klickitat Glacier provides required rearing conditions during the ammocoete life stage of the species.

Resident fish in the Klickitat include rainbow, westslope cutthroat, and brook and bull trout. Naturally reproducing populations of rainbow trout are found within the mainstem from the Columbia River confluence to RM 85, and in virtually all tributaries. Cutthroat were observed in limited numbers within McCreedy and Summit creeks during the1980s; however, none was observed during a late 1990s reinvestigation. The historic and present distribution and status are relatively unknown. Brook trout were introduced into the Klickitat subbasin in the late 1970s and early 1980s, primarily in high mountain lakes. Currently, natural reproducing populations are found throughout the upper Klickitat mainstem and in major tributaries upstream of Big Muddy Creek (RM 53.8).

Bull trout are listed as threatened under the Endangered Species Act (ESA). The presence of both brook trout and bull trout in Fish Lake Stream and the West Fork Klickitat below its confluence with Fish Lake Stream could potentially result in hybridization and competitive interactions and are of concern to fisheries managers in this area**.**

IV. Summary of the Proposed Production Plan

Fisheries programs in the Klickitat River subbasin that are managed primarily by the Yakama Nation are part of the Yakima/Klickitat Fisheries Project (YKFP). The YKFP is designed to use artificial propagation in an attempt to re-establish, supplement, or increase natural production and harvest opportunities of anadromous salmonids while maintaining the long-term fitness of the target population, and while keeping ecological and genetic impacts on non-target species within specified limits.

The plan identifies overall goals for the four production species of anadromous fish (i.e., spring Chinook, steelhead, fall Chinook and coho) in the Klickitat basin, and proposes changes to existing production practices and facilities. It also establishes goals, objectives, and strategies

for each of the five species targeted by the YKFP, and shows the relationship of ongoing and proposed facility and habitat improvements to the basinwide and species-specific goals.

The Yakama Nation proposes to focus supplementation and natural production efforts on spring Chinook and steelhead, while maintaining a focus on harvest augmentation for fall Chinook and coho. In doing so, the project would increase production of spring Chinook and steelhead at the Klickitat Hatchery and eventually eliminate in-basin artificial production of coho. In-basin fall Chinook production levels would remain the same, but half the production would be transferred from Klickitat Hatchery to a proposed new facility at Wahkiacus (rivermile 17.0). The program proposes further improvements to existing facilities that would increase the ability of spring Chinook and steelhead to access high quality habitat, thus improving natural production; and that would allow collection of spring Chinook and steelhead broodstock to meet supplementation goals for those two species. The monitoring and evaluation (M&E) measures proposed in this plan are designed to use, to the maximum extent possible, work that is being or has been done in other basins (particularly the Yakima subbasin) on key issues such as domestication selection and ecological interactions that remain the subject of scientific debate on supplementation.

A. Potential Production Goals

The principle object of the proposal is to focus spring Chinook and summer steelhead programs on supplementation, and focus the coho and fall Chinook programs on harvest augmentation. The strategy is to increase production of spring Chinook and summer steelhead at Klickitat Hatchery by eliminating in-basin hatchery production of coho and transferring half the fall Chinook production to the lower Klickitat River (i.e., Wahkiacus Hatchery and Acclimation Facility (WHAF)). The Yakama Nation is proposing initially (year one of implementation) to decrease coho smolt production at Klickitat Hatchery by one million smolts and increase production of spring Chinook at the hatchery from 600,000 to 800,000 smolts. Two hundred thousand of these spring Chinook smolts would be acclimated in the upper Klickitat Basin above Castile Falls, the remaining 600,000 would be released from the Klickitat Hatchery. Summer steelhead supplementation would consist of 200,000 steelhead using local stock, also released from the upper acclimation site above Castile Falls (i.e., McCreedy Creek Acclimation Site). Following the initial effort the Yakama Nation is proposing to transfer half the fall Chinook production (2 million) from Klickitat Hatchery to the Wahkiacus facility, lower in the basin. The following table shows transition from the current production at the Klickitat Hatchery to the proposed production numbers for each target species.

Klickitat Hatchery Production	**Current Production**	**Implementation Year**				
		1	**2**	**3**	**4**	**5**
Coho	1,000,000[9]	0	0	0	0	0
Spring Chinook	800,000[10]	800,000	800,000	800,000	800,000	800,000
Steelhead	200,000[11]	200,000	200,000	200,000	200,000	200,000

[9] A total of 1,000,000 coho are transferred as eyed eggs to Klickitat Hatchery for station rearing and release. An additional 2,500,000 coho smolts are directly released in the basin to address harvest objectives. It is proposed that coho production will shift to a total of 1,000,000 acclimated pre-smolts released from the new Wahkiacus facility. If it is determined that this does not meet harvest objectives, a portion of the "direct river release" coho may resume.
[10] The current production plan calls for the release of 600,000 smolts and approximately 200,000 fry out-planted in upper basin.

Fall Chinook	4,000,000	4,000,000	2,000,000	2,000,000	2,000,000	2,000,000

Sources of the hatchery broodstock for the target species will be aligned to the purpose of the proposed production. Emphasis will be placed on the fitness of the spring Chinook population with a transition from hatchery-origin broodstock to natural-origin broodstock so as to achieve a release of progeny that have at least one natural-origin parent. Summer steelhead broodstock will have a similar approach, but emphasis is to transition from a non-local to a Klickitat stock.

B. Fishery Benefit and Harvest

1. Spring Chinook

Increase the number of spring Chinook returning to the Klickitat basin to an average of 5,000 to 10,000 fish annually.

2. Fall Chinook

Maintain the Klickitat fall Chinook program for harvest augmentation, with a combined annual average harvest (ocean, Columbia River, and Klickitat basin) of 14,000 fish.

3. Summer Steelhead

Rebuild natural populations of steelhead in the Klickitat subbasin. Use supplementation to enhance the summer-run steelhead stock.

4. Coho

Focus the coho program on harvest augmentation, with a combined annual average harvest (ocean, Columbia River, and Klickitat basin) of approximately 14,000 coho, while releasing in-basin production capacity for priority species (spring Chinook and steelhead).

The master plan generally outlines the harvest plan for the target four species. For spring Chinook, coho and fall Chinook harvest would be managed consistent with the guidelines established under U.S. v. Oregon agreements. With steelhead, the Yakama Nation and Washington Department of Fish and Wildlife will work cooperatively to minimize the risks associated with the proposed production and ESA limitations.

C. Facilities and Sites

To meet the proposed production goals, improvements are being requested for the Klickitat Hatchery facilities. This includes work at the hatchery, but also includes off site efforts. Improvements at the hatchery includes the replacement and construction of the water intakes and delivery systems, chiller, and sediment settling pond improvements, construction of a more water efficient and larger adult holding pond, hazardous materials building, two houses,

[11] 120,000 direct-release from Skamania Trout Hatchery and Vancouver Hatchery, and 200,000 eyed eggs from Wells Hatchery incubation, early rearing and rearing at Klickitat Hatchery and Ringold.

and predator control measures (e.g., bird netting). Off-site improvements include construction of upstream acclimation sites for spring Chinook and steelhead in the upper basin upstream from Castile Falls (i.e., McCreedy Creek Acclimation Site), and the construction of the Wahkiacus Hatchery and Acclimation Facility for the full hatchery production of fall Chinook and acclimation of coho pre-smolts.

In addition, the Yakama Nation proposes improvements to Lyle Falls fishway and to a lesser extent to Castile Falls fishway. These proposed new facilities at the falls are to assist in the collection of broodstock and monitoring the production goals for the target species.

At Castile Falls an installation of an adult trap and video monitoring facilities would allow collection of natural-origin spring Chinook and steelhead for broodstock that are locally adapted to the upper Klickitat basin. The trap also would allow the sampling of returning fish for biological characteristics and marks. Installation of video equipment and PIT tag (Passive Integrated Transponder tags) detection in the fishway would improve counting of natural- and hatchery-origin recruits returning to the upper basin.

Proposed improvements at Lyle Falls Fishway (i.e., Lyle Falls No. 5 at the upper-most falls in the series) would focus on passage but are also needed for spring Chinook and steelhead broodstock and all species monitoring efforts. Improvements would include addition of an adult trap and video monitoring, a directional orifice at the entrance, additional baffles to meet design criteria, increased attraction flow, a 180-foot extension of the fishway exit to bypass the aggraded reach, and addition of adult PIT tag detection equipment in the fishway.

D. Capital and Future Costs

Planning so far has cost $1,116,365 and includes master plan completion and submittal, conceptual engineering designs and costs, and staffing to complete necessary work for the submission of the master plan. Additional planning expenses include the cost of compliance with National Environmental Policy Act requirements, staffing, and planning associated with steps 2 and 3 for preliminary and final designs. Construction of all the project elements outlined in the Klickitat Subbasin Anadromous Fishery Master Plan is estimated to cost $9,069,484 and assumes the major project construction to occur in 2007 and 2008. Annual operation and maintenance costs after all facilities are fully developed would be $441,351.[12] Monitoring and evaluation is estimated to cost about $754,720 annually. These cost figures are based on estimates from the engineers' opinion of probable construction costs, and are accurate to +/- 35 to 50% as described in the master plan.

V. Key Questions and Issues

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

1. Funding Sources and Program Concept

[12] This amount assumes $566,000 in Mitchell Act funds for the Klickitat Hatchery.

The production and passage components of this program were developed with Mitchell Act funds for Mitchell Act mitigation purposes aimed at what is fairly described as state and federal fish and wildlife fishery manager objectives. The master plan states that these facilities would now be refocused on the restoration and harvest objectives of the Yakama Nation. This refocusing or expansion of purpose is consistent with language included in prior versions of the Council's fish and wildlife program. One of the topics that the Council, Bonneville and others need to address in order to support this initiative is the appropriateness of Bonneville contributing funding to the redirection or expansion of the use of this facility to more squarely address tribal objectives. Comment on that issue is sought.

Related to that point, it would be important to receive comment evidencing that the tribal and state fishery managers, NOAA, and BPA (as the proposed funding entity) have a definite and agreed upon set of goals and objectives for the use of this facility. On that point, what if any relationship is there to US v. Oregon harvest/production agreements or harvest and/or production agreements deriving from other venues?

On the issue of funding, the Council and Bonneville need to understand clearly what the continuing Mitchell Act funding contribution will be for the passage elements of the program and/or the production elements of the program. Comment on this issue is welcomed.

2. Subbasin Planning

The Council anticipates that subbasin plans will be adopted into the Council's program in 2005. Comment on how the purposes, goals, and activities proposed are consistent with the subbasin plan for the Klickitat that was recommended to the Council for adoption into its fish and wildlife program.

The Artificial Production Review and Evaluation that is underway is intended to yield coordinated policy recommendations for hatcheries basinwide. How can the program as proposed be considered in that APRE and adapt to its results?

3. Lamprey and Habitat Actions

The lamprey and habitat actions outlined in the master plan were not part of the original scope of the proposal as recommended in the Columbia Gorge Province review. Currently, there are regional lamprey workgroup formulating critical uncertainties[13] and an ongoing habitat project (Klickitat Watershed Enhancement Project, #1997-056-090[14]) that seem to be addressing these topics. Is it appropriate at this time, as part of the master plan and the information provided, to address the proposed lamprey and habitat actions?

Oral comments on this issue paper can be made at the Council's April 12 - 14, 2005 meeting in Boise, Idaho, and at the Council's May 10 - 12 meeting in Walla Walla, Washington. Written comments will be accepted through May 13, 2005. Comments should be mailed to Mark

[13] The Columbia River Basin Lamprey Technical Workgroup is a subcommittee of the Anadromous Fish Committee of CBFWA.

[14] The Council on July 17, 2002, approved an expanded scope of this project to include the entire Klickitat subbasin. The purpose of the expanded scope was to allow flexibility in implementing restoration activities and align the scope of the project to the other projects in the basin.

Walker, Director of Public Affairs, at the Council's central office in Portland and referencing Council Document 2005-??. In addition, the master plan has been submitted to the Independent Scientific Review Panel (ISRP), and its review is anticipated in April. Based on comments and reviews received, Council staff will develop a list of alternative actions that will be considered by Council. At the July 12 - 14, 2005, meeting in Portland the Council will consider whether to approve the Klickitat Subbasin Anadromous Fishery Master Plan.

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Northwest Power and Conservation Council

March 8, 2005

MEMORANDUM

TO: Council Members

FROM: Mark Fritsch, Project Implementation Manager

SUBJECT: Staff Issue Paper - Sekokini Springs Natural Rearing Facility and Educational Center Master Plan

Please find attached the draft cover letter and issue paper for the master plan associated with the proposal titled "Sekokini Springs Natural Rearing Facility and Educational Center." The master plan and support documents, received on November 3, 2004 from the Montana Fish, Wildlife & Parks, are intended to address the conditions placed on this project as part of the Major Project Review process.[1]

The cover letter and issue paper are intended to solicit public comment, as part of the review of a master plan, by the ISRP and Council. Council staff reviewed the project proposal, cover letter and issue paper with the Fish and Wildlife Committee at their February meeting and will be requesting the Councils recommendation to release the letter and issue paper for public comment at your meeting next week.

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[1] 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).

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Steve Crow
Executive Director

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

Northwest Power and Conservation Council

(draft version March 8, 2005)

Dear Interested Party:

Montana Fish, Wildlife & Parks proposes to use facilities at Sekokini Springs to aid in the recovery of genetically pure westslope cutthroat trout populations in the Flathead River drainage. The proposed activities at Sekokini Springs are a component of Bonneville Project 1991-019-03 (*Hungry Horse Mitigation*), which addresses fishery losses caused by the construction and operation of Hungry Horse Dam in the Flathead Basin. This project also implements habitat restoration, fish passage improvement, off-site mitigation and monitoring pertaining to Hungry Horse Mitigation and includes enhancement and restoration at numerous tributaries in the basin.

A master plan, as the first step in the Major Project Review process[1] for this project, was prepared by Montana Fish, Wildlife & Parks and the Bonneville Power Administration and submitted to the Council on November 3, 2004. The proposed Sekokini Springs site will provide rearing areas for donor fish whose progeny will be released to targeted restoration streams. Additionally, the site will provide isolation facilities within which wild spawners can be held for collection of milt for infusion into the existing state broodstock to introduce additional genetic complement. In addition, there is an educational component of the project to promote public awareness of the conservation of native species, particularly westslope cutthroat trout.

Council staff has prepared an issue paper on the master plan that can be found on Bonneville's web site ?????????. The Council invites comment on this issue paper and on the master plan. In particular, public comment is requested on key issues listed in the issue paper.

[1] 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).

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The issue paper is not intended to constrain alternatives the Council may consider or limit Council action on this project. Copies of the issue paper are available by calling the Council's central office in Portland (1-800-452-5161) and requesting Council Document 2005-??.

Oral comments on the issue paper can be made at the Council's April 12 - 14, 2005 meeting in Boise, Idaho, and at the Council's May 10 - 12 meeting in Walla Walla, Washington. Written comments will be accepted through May 13, 2005. Comments should be mailed to Mark Walker, Director of Public Affairs, at the Council's central office in Portland referencing Council Document 2005-??. In addition, the master plan has been submitted to the Independent Scientific Review Panel (ISRP), and their review is anticipated in April. Based on comments and reviews received, Council staff will develop a list of alternative actions that will be considered by the Council. At the July 12 - 14, 2005 meeting in Portland the Council will consider whether to approve the Sekokini Springs Natural Rearing Facility and Educational Center Master Plan (see attachment).

Thank you for your interest in the Council's review of this project.

Sincerely,

Stephen L. Crow
Executive Director

Step 1 Review Process - Sekokini Springs Natural Rearing Facility and Educational Center Master Plan

Week[2]	Description
1 (November 3, 2004)	Montana Fish, Wildlife & Parks submits Master Plan to NPCC
2 (November 18, 2004)	BPA/NPCC initiates Peer Review
14(February 8, 2005)[3]	NPCC staff Comments regarding Master Plan and draft Issue Paper to Fish and Wildlife Committee (packet)
2- 23	Additional materials provided to Peer Review, if necessary
15 (February 15, 2005)	NPCC Fish and Wildlife Committee reviews the Master Plan and draft Issue Paper
18 (March 8, 2005)	Fish and Wildlife Committee Recommendation to Council (packet) regarding draft Issue Paper
19 (March 15 - 17, 2005)	NPCC considers releasing Master Plan and Issue Paper for review and comment
23 (April 12 - 13, 2005)	NPCC takes comments on Master Plan at Council Meeting
27 (May 10 - 12, 2005)	NPCC takes public comments at Council Meeting
27 (May 13, 2005)	Peer Review findings submitted to NPCC
27 (May 13, 2005)	Due date for all written comments on Master Plan
24-31	NPCC staff prepares a summary of comments and potential alternatives for decision
31 (June 7, 2005)	NPCC staff provides summary of comments and potential alternatives to Fish and Wildlife Committee to consider recommendation (packet)
32 (June 14, 2005)	Fish and Wildlife Committee considers potential alternatives for recommendation
35 (July 5, 2005)	NPCC staff provides Decision Memo with Fish and Wildlife Committee recommendation to Council (packet)
36 (July 12 - 14, 2005)	Council considers approval of Master Plan

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[2] Due to the needed coordination with Fish and Wildlife Committee and Council meetings, this schedule is based on the minimum amount of time required.

[3] Due to the December '04 Council agendas with subbasin plans and the backlog of reviews for the ISRP, this period of the schedule was extended.

Northwest Power and Conservation Council

ISSUE PAPER

Sekokini Springs Natural Rearing Facility and Educational Center Master Plan[1]

(draft version March 8, 2005)

Council Document 2005-??

[1] The master plan was prepared for Bonneville Power Administration by Montana Fish, Wildlife & Parks (Project # 1991-019-03, Hungry horse Mitigation). You may obtain a copy of the master plan and support documents from Bonneville Power Administration's web site. ??????????????????
These documents can be viewed or downloaded for printing. If you do not have access to the Internet, please call Ron Morinaka at 503-230-5365.

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Staff Issue Paper[2]

Sekokini Springs Natural Rearing Facility and Educational Center Master Plan

I. Introduction

The master plan, submitted by Montana Fish, Wildlife & Parks, proposes to use the Sekokini Springs site to aid in the recovery of genetically pure westslope cutthroat trout (WCT) populations in the Flathead River drainage. The Sekokini Springs site will provide rearing areas for donor fish whose progeny will be released to targeted restoration streams. Additionally, the site will provide isolation facilities within which wild spawners can be held for collection of milt for infusion into the existing state broodstock to introduce additional genetic complement. In addition, there is an educational component of the project to promote public awareness of the conservation of native species, particularly the westslope cutthroat trout.

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

This project is part of the Hungry Horse Mitigation Program (HHMP) funded by Bonneville Power Administration (BPA). In 1991, the *Fisheries Mitigation Plan for Losses Attributable to the Construction and Operation of Hungry Horse Dam* (Mitigation Plan) was prepared by Montana Fish, Wildlife, & Parks (MFWP) and the Confederated Salish and Kootenai Tribes (CSKT). This Mitigation Plan provided the Council with documentation of fisheries and habitat losses associated with construction and operation of Hungry Horse Dam (HHD) and a flexible strategy to mitigate for those losses. It addressed six specific program measures identified in the 1987 Columbia River Basin Fish and Wildlife Program and subsequent program amendments. The Council approved the loss statement, including annual fisheries losses of 250,000 juvenile bull trout (*Salvelinus confluentus*) and 65,000 migratory westslope cutthroat trout (WCT, *Oncorhynchus clarki lewisi*) from the Flathead Lake populations. In addition, an estimated 175,483 adfluvial WCT juveniles were lost in tributary reaches of the Hungry Horse Reservoir (HHR) and Flathead Lake due to construction of the HHD. The Mitigation Plan identified 77 miles (124 kilometers (km)) of critical, low gradient spawning and rearing habitat in streams that were inundated and lost when HHR filled.

The *Hungry Horse Dam Fisheries Mitigation Implementation Plan* (Implementation Plan) was adopted by the Council in 1993 and funded by the Bonneville Power Administration (Bonneville). The Implementation Plan describes specific measures to protect and enhance resident fish and aquatic habitat affected by Hungry Horse Dam that do not require changes in Hungry Horse Dam operation. The hatchery portion of the HHMP is transitioning to experimental culture of native species as directed by the Mitigation Plan and the Implementation

[2] This issue paper was prepared by the staff of the Northwest Power and Conservation Council.

Plan. The Council approved the plan and amended it into the 1994 Fish and Wildlife Program (Measure 10.3A).

A decision tree in the Implementation Plan directs the cooperating agencies to experiment with artificial propagation of native species to facilitate species restoration. Work at the Sekokini Springs site addresses artificial propagation of WCT. The site offers a unique combination of a small hatchery facility and pond habitat suitable for rearing native WCT in a controlled naturalized environment.

Mitigation projects under the Hungry Horse Mitigation Plan by MFWP and CSKT have parallel charges and have been implemented consecutively on several objectives during recent years. Sekokini Springs is a component of BPA project 1991-019-03 (*Hungry Horse Mitigation*), which addresses fishery losses caused by the construction and operation of Hungry Horse Dam in the Flathead Basin. This project implements habitat restoration, fish passage improvement, off-site mitigation and monitoring pertaining to Hungry Horse Mitigation and includes enhancement and restoration at numerous tributaries in the basin. In association with this effort, BPA project 1991-019-01 (*Research, Monitoring, and Restore Native Species*) included both stream restoration projects and monitoring within the Flathead Basin to verify responses of native fish communities, including WCT, to Hungry Horse Dam mitigation measures.

III. Historical and Current Status and Management of Westslope Cutthroat Trout

A. Status

The Flathead River is a major subbasin in the Columbia River Basin of northwestern Montana. Principal tributaries of the Flathead River are the North Fork Flathead, Middle Fork Flathead, South Fork Flathead, Stillwater, Swan and Lower Flathead rivers. The Flathead River flows into Flathead Lake. Historically, it is believed that WCT occupied all of the streams and lakes to which they had access in the Flathead River subbasin.

Seventy-seven miles (124 km) of high quality, low gradient spawning and rearing habitat were lost due to inundation when Hungry Horse Reservoir filled. Hungry Horse Dam is located on the South Fork Flathead River 5.3 miles (8.5 km) above the confluence with the mainstem of the river. The dam was completed in September 1952, and is operated for flood control and power production. The dam eliminated access to about 42 percent of the traditional spawning grounds in the South Fork for westslope cutthroat and bull trout. In total, habitat degradation and fish passage barriers have eliminated nearly 60 percent of the habitat once available to native westslope cutthroat and bull trout in the Flathead subbasin upstream of Flathead Lake.

Currently the WCT populations in the Flathead subbasin occupy a small percentage of their historic range and have been listed as a Fish Species of Special Concern in Montana and a sensitive species by Region I of the U.S. Forest Service (USFS), and the U.S. Fish and Wildlife Service (USFWS) has recently determined that the WCT is not warranted for listing at this time.

Nonnative species or environmental damage in some locations threatens remnant populations of genetically pure WCT, creating a need to conserve the genetic integrity and diversity of the species. Genetic inventories of existing stocks of WCT have revealed that

hybridized/introgressed populations in headwater lakes are threatening pure populations downstream.

Recent studies have determined that hybridization of WCT and rainbow trout has occurred in 55 and 56 percent of sites studied in the North and Middle forks of the Flathead River, respectively. Temporal comparisons of these results indicate that hybridization has spread upstream within North Fork tributaries since 1984.

The Sekokini Springs facility is located near the mainstem Flathead River, within which genetically pure WCT abundance has shown a steady decline in recent years. Genetic introgression and competition with nonnative trout species has also been documented in tributaries of the Flathead River subbasin. Although the state's captive brood stock is available to re-establish WCT in many areas, a source of genetically pure WCT from "nearest neighbor" wild sources within the Flathead River subbasin is desired to replace certain populations locally.

B. Management

In the mid 1960s it was determined that WCT were highly vulnerable to angling, which was thought to be a contributing factor to their decline. Over time, angling limits for WCT have become much more restrictive. Angling for cutthroat trout is catch-and-release, except for the Middle Fork Flathead and the Great Bear Wilderness, and South Fork tributaries and lakes upstream of Hungry Horse Reservoir and the Bob Marshall Wilderness, where it is legal to harvest three fish if they are less than 12 inches in length. Since the early 1970s, additional harvest management protection has been afforded to WCT as managers developed a policy of not planting exotic fish species in areas where they would compete with native species. Additionally, since 1982 a policy has restricted the use of non-native fish in private ponds connected to the Flathead Lake and river system. Currently, there is no allowable harvest in the contiguous Flathead subbasin.

IV. Summary of the Proposed Production Plan

The Sekokini Springs site will be used in the restoration of WCT in the Flathead subbasin by preserving and replicating pure genetic stocks from donor populations within the Flathead to preclude potential listing under the Endangered Species Act (ESA). Wild juveniles from endemic donor populations would be raised in created natural rearing habitat at the site to preserve behavioral traits and provide gametes for re-establishing progeny in selected areas where the species has been impacted or extirpated. The Sekokini Springs site will also conserve remnant populations that are threatened by nonnative species or environmental damage.

The offspring of wild WCT reared at Sekokini Springs will be used primarily to initiate wild spawning runs in restored or reconnected habitat. Once spawning runs are established, harvest will be controlled through fishing regulations. Additionally, surplus fish could be outplanted into lakes being chemically rehabilitated as part of the WCT conservation program, and in closed-basin lakes to provide angler harvest as part of Montana's Family Fishing program.

All fish planted from Sekokini Springs will be marked (e.g. fin clips, otolith, fluorescent pigments or chemical markers). Because there is limited information on appropriate stocking densities into streams and tributaries fish, from Sekokini Springs will normally be released to

targeted recovery streams at a density not to exceed the maximum density of wild trout in a comparable stream order, gradient, and flow range. Experiments to examine stocking densities and determine the appropriate stocking levels may occur. Target streams to be stocked include previously fishless and degraded habitats within the historic range of WCT that have been recently recovered, or vacant habitats that have been blocked to fish passage by man-made obstacles. To be considered for stocking, all target streams must be absent of WCT, Yellowstone cutthroat trout and rainbow trout, or isolated from wild spawners to minimize the expansion of introgressed or hybridized stocks in the Flathead subbasin.

A. Production Strategies

The proposed Sekokini Springs facility will incorporate two conservation strategies into the program. The first component is the collection of juveniles from donor streams for production of progeny to be outplanted into restoration streams and lakes. The second component is the collection of milt from wild spawners for infusion of genetic material into the state's existing WCT captive broodstock. These strategies are described below.

1. *Juvenile Donor Stock Collection - - Creation of Progeny from Local Stock Conservation Strategy*

There are two options for collection of a donor stock at the Sekokini Springs facility. The preferred option is to collect juvenile WCT from local streams that have been genetically tested and determined to contain WCT that are 100 percent genetically pure. The donor populations would also be required to have a history of fish pathogen testing, and a negative record for pathogens of concern.

If juvenile collection does not allow for the appropriate number of donor fish required for the program, the second option, collecting gametes from wild spawners, may be considered. Because the program necessitates collection every year and access issues make gamete collection difficult, juvenile collection is preferred for the establishment of a "nearest neighbor" stock.

No more than 25 percent of the juvenile population in a given reach will be collected for donor stock. If the number of juveniles within a population decreases, as evidenced through monitoring and evaluation procedures (population estimation through electroshocking assessments), fewer fish will be removed, or collection will be stopped.

The specific number of juvenile donor fish to be collected is dependent upon several factors, one of which is the estimated mortality rate of wild donor fish as they acclimate to conditioning ponds. Other factors that contribute to the number of juveniles to be collected include the relative abundance of juvenile WCT within the donor populations, the carrying capacity of the proposed recipient streams, and known survival percentages of various life stages of reared WCT.

Collected juveniles will be reared to maturity within ponds that hold each collection year/genetic stock. Upon maturation, a false-attraction weir will be used to collect maturing adults from the conditioning ponds. These fish will then be spawned adjacent to the ponds. Mature fish will not be transferred to the hatchery building. An alternative method for adult collection will be to draw down the pond, collect fish, and sort for ripeness. Females will be

live-spawned, and sperm from two males, one as a primary source and one as a "back up" would be used to fertilize each egg lot.

2. Milt Collection - - Infusion of New Material into the State's Existing WCT Captive Broodstock Strategy

The Sekokini Springs facility will be used to hold wild spawners for collection of genetic material. This genetic material, in the form of milt from spawning males, will be infused into the state's captive broodstock. The infusion of new genetic material into the captive broodstock is considered to be an important component of WCT conservation to increase the genetic diversity of the state's stock. Because the transfer of live fish to hatcheries is prohibited in Montana, milt is the best option for infusion. Milt is preferred for this activity because it is the easiest to obtain and the collection is less disruptive to wild runs. The collection of gametes is a difficult task and will take place only when genetic infusion is deemed necessary by managers.

Infusion of new genetic material into the captive broodstock, although part of this Master Plan, is separate from establishing the "nearest neighbor" stocks. The Sekokini Springs facility was utilized in 2003 to infuse wild gametes into the captive broodstock for the first time since the stock was established in 1983 – 1984.

Adults collected for milt collection will be captured randomly during the migration period. Fish would be transported to Sekokini Springs for holding until they spawn. Milt will be collected from ripe males and transported in individual containers with oxygen, and on ice, to the hatchery facilities producing the captive broodstock.

B. Facilities

The proposed action at the Sekokini Springs site will modify existing facilities and structures and construct new facilities and rearing habitat for the conservation-based production program. Site elements have been identified as either priority or for future development. The sponsor is hopeful that some of the future elements will be completed through non-Bonneville funded efforts. These future elements of the site development were selected to assist with budgeting and are considered not essential to establishing fish rearing on-site, but are a component of additional educational facilities that are necessary to meet the primary objectives of this project.

The priority project elements:

- Construction of new incubation facilities in the existing hatchery building.
- Modification and conversion of two existing earthen ponds into four donor fish and juvenile rearing ponds.
- Construction of a concrete pad near the rearing ponds for a spawning area.
- Construction of educational trails, and associated interpretive signage, that comply with the Americans with Disabilities Act.
- Construction of a trap/fish barrier at the outfall stream reach to prevent fish from escaping into the Flathead River or entering the facility from the river.
- Construction of an education facility, parking area and USFS, approved vault toilet.

- Construction of a new duplex for personnel, including a drinking water supply well and septic field.
- Upgrade of the electrical service.
- Installation of a pre-fabricated storage facility.
- Addition of a new shed roof extension.
- Construction of a water control structure on an existing drained pond to restore wetland conditions.
- Installation of a false-attraction weir within each brood pond to aid in collection of broodfish,

The future development project elements:

- Construction of an overlook on the lower stream at an oxbow bend.
- Creation of two viewing windows, installed below the waterline, to serve as educational tools.
- Construction of a wetland area access path and viewing platform.
- Construction of a natural-type stream habitat, from the existing hatchery building and ending at the Flathead River.

C. Capital Costs

The total cost associated with the proposed Sekokini Springs Natural Rearing Facility and Educational Center is $2,586,545[3]. As proposed, the construction could occur over a five-year period, but higher-prioritized elements of the project may be completed sooner than scheduled if funding becomes available. Some modifications to existing structures were completed in 2001 and 2002[4]. The highest-priority elements are to remodel the hatchery building, develop water conveyance channels, and construct the ponds so that fish rearing can be initiated. The total cost associated with this phase is $2,043,261. The future development phase that includes stream channel habitat and viewing windows is estimated to cost $543,284.

The proposal as defined in the master plan is not expected to go through additional step reviews (i.e., combination type step review) unless critical uncertainties are not adequately addressed during this review. This is primarily based on the degree of anticipated engineering and design associated with the proposed project.

Annual operation and maintenance costs after all facilities are fully developed would be approximate $250,000 annually. Monitoring and evaluation is estimated to cost about $90,000 annually.

V. Key Questions and Issues

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

1. Concept

[3] This cost includes an anticipated cost associated with final designs and permitting of $318,018 and construction management of $148,408.
[4] Some repairs and remodeling to the hatchery building have already been accomplished by MFWP.

Montana Fish, Wildlife & Parks undertook an intensive planning process using existing knowledge of the habitat and native fish stocks. The master plan has focused and elaborated on two conservation production strategies. Do the potential benefits from the project outweigh the potential genetic and ecological risks? 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 that Montana Fish, Wildlife & Parks should consider that would meet its management goals? Are there less-costly alternatives?

2. Habitat Restoration

Is the habitat capability in these targeted streams sufficient to initiate and sustain wild spawning runs as outlined in the master plan? Is the timing of the actions complementary?

3. Educational Elements

Is it appropriate for the fish and wildlife program to fund the education component of the proposal to promote public awareness of the conservation of native species? In the past, the program usually has treated these elements as a discretionary; should priority be placed on the artificial production component of the proposal and any decision on the education component postponed to a later date?

Oral comments on this issue paper can be made at the Council's April 12 - 14, 2005, meeting in Boise, Idaho, and at the Council's May 10 - 12 meeting in Walla Walla, Washington. Written comments will be accepted through May 13, 2005. Comments should be mailed to Mark Walker, Director of Public Affairs, at the Council's central office in Portland referencing Council Document 2005-??. In addition, the master plan has been submitted to the Independent Scientific Review Panel (ISRP), and its review is anticipated in April. Based on comments and reviews received, Council staff will develop a list of alternative actions that will be considered by the Council. At the July 12 - 14, 2005, meeting in Portland, the Council will consider whether to approve the Sekokini Springs Natural Rearing Facility and Educational Center Master Plan.

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