Northwest Power and Conservation Council



April 27, 2006

# MEMORANDUM

**TO:** Council Members

**FROM:** Mark Fritsch, Project Implementation Manager

**SUBJECT:** Approval of final design and construction of the Northeast Oregon Hatchery (Project 1988-053-01).

## INTRODUCTION:

The Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, and Oregon Department of Fish and Wildlife in coordination with the U.S. Fish and Wildlife Service submitted final design and construction costs on March 16, 2006 to the Council for the *Northeast Oregon Hatchery Spring Chinook Master Plan* (Project 1988-053-01).

This is the proposal for Council approval of final design and construction. The submittal addresses conditions placed on the project as part of the Council's past approvals of the master plan and preliminary designs and also the required elements for approval of final designs. At the May Council meeting, staff will provide an overview of the proposed final designs and costs and discuss the Fish and Wildlife Committee recommendations with the Council.

The sponsors' detailed submittal and design materials were sent to you under separate cover in early April. This memorandum summarizes those details.

## PROPOSED ACTION:

I. Recommend that Bonneville fund the capital construction of the facilities related to the Northeast Oregon Hatchery (Project 1988-053-01).

II. Acknowledge that the Council's funding conditions that were established in previous reviews have been satisfied with the exception of a confirmed management agreement, which the Council should insist be in place prior to construction.

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III. Recommend that the decision regarding the monitoring and evaluation associated with the capital construction of these facilities be deferred to the fiscal years 2007 - 2009 review process.

IV. Recommend that Bonneville provide to the Council, prior to construction, an update regarding the outcomes of the supplement to the Biological Assessment, Supplemental Analysis, Special Use Permit, and water use permit application.

**SIGNIFICANCE:**

Total cost of construction for the proposed new and modified facilities is estimated to be approximately $16,462,309. The final design submittal proposes new construction of an incubation and rearing facility in the Lostine River Basin to 1) accommodate the Lostine stock production (250,000 spring Chinook smolts), 2) provide adult holding and incubation for the Imnaha stock, and 3) rear half of the total Imnaha production (245,000 spring Chinook smolts). In addition, the proposal includes a new adult-capture facility on the Lostine River and improvement to the existing Imnaha Satellite Facility (i.e., Gumboot) to improve adult collection and juvenile acclimation.

**BUDGETARY/ECONOMIC EFFECTS:**

The total of estimated capital construction costs for the new and modified facilities is estimated to be $16,462,309. Planning since 1988 has cost $9,318,000[1]. Cost estimates include construction costs, construction management, inspection, and TERO (Tribal Employment Rights Office)[2] fees. The budget estimate has an accuracy of +/-10 to 15 percent.

Start-up capital costs for the Lostine River Hatchery are estimated at $500,000 for equipment and $212,000 for assistance with a waste management permit, O&M Manual, and start-up assistance. Other capital costs associated with this project are Nez Perce Tribe/ODFW annual planning cost of $223,667 for the remainder of Fiscal Year 2006[3] and $283,308 in Fiscal Year 2007.

Annual operation and maintenance costs for the new Lostine River Hatchery after the facility is fully developed are estimated at $826,000. The current annual operation and maintenance budget (Project 1998-007-02) for the Lostine River acclimation and adult collection activities is $336,689. The proposal estimates that additional operation and maintenance will be $520,773 per year beginning in Fiscal Year 2008.

[1] Estimated through May 30, 2006.
[2] TERO Ordinances apply to all projects that benefit the Nez Perce Tribe. This includes giving preference to qualified Indians in all aspects of employment, contracting, and other business activities.
[3] Includes base monitoring and evaluation staff support for transition of ongoing study coordination, data dissemination, reporting, and construction effects on USFWS and NOAA Fisheries Biological Opinions Terms and Conditions. The estimated cost is$95,751.

Annual monitoring and evaluation costs to implement the NEOH M&E Plan will consist of ongoing projects in the Blue Mountain Province and new proposed projects submitted in the fiscal years 2007 - 2009 review process. Future monitoring and evaluation costs, which could exceed $2 million, will need to be determined as part of that same review process.

The following cost figures are based on estimates from FishPro, a Division of HDR Engineering, Inc., and NEOH Core Team project leaders in consultation with Bonneville staff.

Costs to Date[4]

| FY | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 |
|---|---|---|---|---|---|---|---|---|---|
| **Planning** | .133 | .592 | .521 | .337 | .030 | | | .359 | .150 |

| FY | 98 | 99 | 00 | 01 | 02 | 03 | 04 | 05 | 06[5] |
|---|---|---|---|---|---|---|---|---|---|
| **Planning** | .668 | .374 | .042 | 1.347[6] | .529 | .749 | .817 | 1.229 | |
| **Final Design** | | | | | | | | | .629 |
| **NPT/ODFW** | | | | | | | | | .234 |
| **Land Purchase and Easements** | | | | .128 | .088 | .263 | .045 | | .054 |

Future Costs[4]

| FY | 06[7] | 07 | 08 | 09 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|
| **Planning**[8] | | | | | | | |
| Final Design | .548 | | | | | | |
| NPT/ODFW | .239[9] | .283[10] | | | | | |
| **Construction Costs** | | | | | | | |
| Lostine River Hatchery | 4.302 | 8.755 | | | | | |
| Lostine River Hatchery 3rd Residence Placeholder | | .250 | | | | | |
| Lostine Adult Collection Facility Wolfe Site Placeholder | | 1.206 | | | | | |
| Imnaha Satellite Facility | .652 | 1.297 | | | | | |
| **Start Up Costs** | | .565 | .147 | | | | |
| **Ongoing O&M –** Lostine River Acclimation Facility and Weir O&M (199800702) | .337[11] | .354 | .354 | | | | |
| **New O&M** – Lostine River Hatchery and Weir | | | .521 | .826 | .851 | .877 | .903 |
| **Ongoing M&E –** Lostine River M&E (199800702) | .245[11] | .269 | .275 | .283 | .288 | .295 | .302 |
| **New M&E –** NPT 200713200 | | 1.806[13] | 1.771[13] | 1.892[13] | 1.906[13] | 2.111[13] | 2.071[13] |

[4] Costs are in millions
[5] January 1 through May 30, 2006
[6] Planning costs from 2001 to 2004 also include NPT and ODFW planning (Project 1988-053-05), NEPA/ESA consultation, and preliminary design engineering.
[7] June 1 though December 31, 2006
[8] Activities associated with these costs include: (1) project oversight and coordination; (2) construction management; (3) compliance and coordination with county, state and federal permitting and regulatory agencies (Wallowa County, OWRD, ODSL, ODEQ, and ACOE); (4) compliance and coordination with NOAA Fisheries and USFWS biological opinions; and (5) coordination with private landowners in the vicinity of the hatchery facilities.
[9] Includes $95,751 for M&E planning activities.
[10] Includes $264,000 NPT and $19,000 ODFW
[11] January 1 through December 31, 2006 contract amount.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ODFW 200733700 | | .372 | .339 | .405 | .424 | .443 | .463 |
| NPT 199701501[12] | | .062 | .064 | .065 | .067 | .069 | .072 |

**BACKGROUND:**

I. History of the Development of the Northeast Oregon Hatchery Spring Chinook Master Plan.

The long planning history of this project includes resolving management conflicts, addressing siting and environmental issues and reviews, and determining the appropriate funding and operations responsibilities. The following discussion summarizes that history.

The Northeast Oregon Hatchery Program (NEOH) originally was adopted in the Northwest Power and Conservation Council's 1987 Columbia River Basin Fish and Wildlife Program. In 1988 the Council authorized the Nez Perce Tribe (NPT), the Bonneville Power Administration (Bonneville), and the Oregon Department of Fish and Wildlife (ODFW) to submit a master plan for review. The Council asked those agencies for a master plan that addressed spring and fall Chinook, coho, sockeye and steelhead.

Under the 1987 Program, this project related to Section 703(f)(5), which directed Bonneville to:

> "*fund planning, design, construction, operation, maintenance and evaluation of artificial production facilities to raise chinook salmon and steelhead for enhancement in the Hood, Walla Walla, Grande Ronde and Imnaha rivers and elsewhere.*"

The Northeast Oregon Hatchery Program was an initial planning effort by the fishery co-managers to restore anadromous fish runs throughout Northeast Oregon. Restoring spring Chinook into the Grande Ronde Subbasin was a discrete segment of that larger initiative. In March 1996, the Council approved the Grande Ronde spring Chinook portion of the NEOH initiative as one of the 15 high-priority supplementation projects prioritized for implementation that year.

Unfortunately, even with the Council's high-priority status, co-managers could not agree on an appropriate production strategy for Grande Ronde spring Chinook, given such issues as ESA requirements, Oregon's Wild Fish Policy, Lower Snake River Compensation Plan (LSRCP) requirements, treaty and trust responsibility requirements, and other considerations. The co-managers have tried to use the *United States v. Oregon* forum to attempt to reach agreement on these production issues. As part of a formal *United States v. Oregon* dispute resolution process several years ago, the co-managers agreed to ask an ad-hoc independent scientific panel to review their respective proposed production strategies in the Grande Ronde Subbasin and provide a determination on what would be appropriate. The panel offered several options and

[12] Cost estimates are for new tasks associated with NEOH M&E Plan.
[13] Includes $164,046 for Base M&E Biologist and activities (Project 2007-132-00 WEs) 118, 119, 132, 159, 160, and 185.

recommendations, including that an endemic[14] broodstock should be developed for supplementation uses in the Grande Ronde Subbasin.

The co-managers proposed two strategies to implement an endemic broodstock approach for Grande Ronde spring Chinook: captive broodstock[15] and conventional broodstock[16]. In 1994, the co-managers agreed on the strategy for implementation of the captive broodstock component and initiated an emergency program. This captive broodstock component became the Grande Ronde Captive Broodstock project and the Council approved emergency funding in the fall of 1997 for this effort. This captive broodstock component consisted of an expansion at Bonneville Hatchery and improvements to Lookingglass Hatchery.

As the Grande Ronde captive broodstock project evolved, other projects under NEOH evolved with it and were modified to encompass the development of the conventional broodstock component of the overall endemic broodstock approach for Grande Ronde River, initiated in 1997. The endemic component is the Grande Ronde Basin Endemic Spring Chinook Supplementation project, which was approved by the Council on June 10, 1998. The approved action recommended funding for the construction of adult collection weirs and juvenile acclimation facilities at three sites — Catherine Creek, Upper Grande Ronde River, and Lostine River.

In 1998, the NPT refocused its master planning development on how they might more realistically phase in rebuilding goals given limited regional funding and broodstock limitations related to low numbers of available returning fish. The original concept for the NEOH Master Plans called for "new" production that would add to the LSRCP production currently occurring at Lookingglass Hatchery. However, with the continuing decline of salmon runs and the subsequent overload this caused on Lookingglass, in order to forestall extinction of Northeast Oregon spring Chinook, the NPT concentrated its planning efforts on alleviating stress at the facility and restructuring where existing production would occur. The goal was not new production, but to improve the quality of the Currently Permitted Program (CPP) under LSRCP using new and improved techniques.

## II. Step 1 of the Three-Step Review Process

In 1999, the master planning phase (Step 1) of the Three-Step Review Process stalled, due in part to a dispute between NPT and ODFW on fundamental aspects of fisheries production for the Grande Ronde and Imnaha rivers. As a result, the master plan was not submitted as scheduled in 1999.

As part of the Fiscal Year 2000 project funding recommendations, the Council set specific requirements for Oregon and the Nez Perce Tribe to resolve a consistent direction for the spring Chinook program.

[14] Endemic - Native to or limited to a specific region (NEOH master plan, April 2000).
[15] Captive Broodstock - Adult fish maintained in captivity, used to propagate the subsequent generation of hatchery fish (NEOH master plan, April 2000).
[16] Conventional broodstock - Artificial propagation involving the collection and spawning of adult fish, and then incubating, rearing, and releasing the resultant offspring. The term conventional is used because starting with adult fish is the most common method of establishing a broodstock (NEOH master plan, April 2000).

On April 14, 2000 the Council received the master plan and support documents from the NPT. On April 21, 2000, after staff review, the master plan and support documents were submitted to the Independent Scientific Review Panel (ISRP) for review. On July 11, 2000 the Council received the ISRP's review (Document ISRP 2000-6) of the technical responses to the step questions.

The ISRP found the master plan to be well written, in terms of providing information for the Step 1 review, and "one of the better plans it has reviewed." Consequently, the panel recommended that the project proceed to the next step in the Three-Step Review Process. The ISRP did raise nine key issues to be addressed as the project proceeds into the Step 2 phase of its development. In summary the issues raised include the following:

- A more complete and detailed monitoring and evaluation plan (issue 1);
- Demonstrate better linkages to habitat projects and adequately address the limiting factors in the lower section of the Lostine and Imnaha rivers (issue 2), and the adverse impacts these limiting factors have on the life histories of the remnant runs of fish (issue #3). These limiting factors need to be linked and fully addressed regarding the life history diversity of the Chinook stocks as they relate to incubating and rearing at the proposed sites, additional sites and existing sites, and to their relationship to the anticipated use of the NATURE concept (issue 4, 6, and 7);
- Development of a harvest management plan that ensures compatibility with the recovery goal (issue 5); and
- Fully describe the linkage of the proposed project to existing artificial production programs, such as at Lookingglass National Fish Hatchery, and the need for reform and realignment (issue 8) to correct the significant problems to the production initiatives in the subbasins. Delineation of the intent, including timelines, for the captive propagation component as it relates to the demonstration of success or failure of the programs must also be addressed (issue 9).

Concurrent to the above review, Council staff prepared an issue paper (Document 2000-8) on the master plan and released it on June 7, 2000, inviting comment on the issue paper and the master plan. In particular, the Council requested public comment on the key issues regarding the project's concept, genetic risk, basin planning, and harvest management. The Council invited comment on the issue paper at the June 28 and July 19, 2000 meetings and accepted written comments through August 4, 2000. No oral comments were made regarding this project at the two meetings although written comments were received on June 21, 2000 from the Native Fish Society (NFS) and from the ODFW on August 3, 2000. In addition, on August 7, 2000 comments were received from the U.S. Fish and Wildlife Service (USFWS).

On September 20, 2000 the Council gave a conditional approval of the spring Chinook master plan. The Council also established its expectations for the preliminary design submittal as follows:

- That the Bonneville Power Administration fund Step 2 activities (preliminary designs) for the Northeast Oregon Hatchery Program - Grande Ronde and Imnaha Spring Chinook Master Plan, and initiate the original planning scope of the NEOH program.

- That the sponsor fully address the issues raised by the independent scientific peer review.

- That the Currently Permitted Program be addressed in a modification to the section 10-permit application.

- That the co-managers work together to develop an MOU outlining their respective responsibilities in the Grande Ronde and Imnaha rivers.

While it approved the master plan, the Council requested that some of these requirements be presented to the Council prior to the Step 2.

The Council believed it was important to fully address these issues to minimize and eliminate unreasonable risk and to ensure that there were common goals, and that progress was being made regarding the project.

On June 27, 2001 the NEOH Core Team (NPT, ODFW and Confederated Tribes of the Umatilla Indian Reservation) presented information and updates to the Council addressing the requested information. The information addressed the issues as intended.

## III. Step 2 of the Three-Step Review Process

On September 4, 2001 the NPT submitted the preliminary design documents. At that time it was believed that NEPA requirements would be satisfied with a simpler Environmental Assessment (EA) document. It was anticipated that this EA would be completed by the time the Council made its decisions on the Blue Mountain Province project proposals. Council staff wanted to align the review of the Step 2 documents by the ISRP to the provincial review for efficiency purposes. However, soon after the Step 2 submittal was received, Bonneville determined that a full Environmental Impact Statement (EIS) document would be needed instead of the much simpler, Environmental Assessment. Bonneville's decision regarding its NEPA requirements prevented the Council from making a Step 2 decision in the provincial review. In light of this more extensive environmental review process, the comments made by the ISRP in its preliminary review of the Step 2 documents (Document ISRP 2001- 12C), and the need to complete important elements of the Step 2 submittal (e.g., specific issues, monitoring plan, MOU, etc.) the completed Step 2 submittal was rescheduled to a later date while the EIS was completed. The Council was advised that the draft EIS would be completed in late summer or early fall of 2002, and that this would allow for the Step 2 submittal to be provided to the Council in the fall of 2002.

On May 22, 2003 the NPT again submitted Step 2 documents to address the conditions placed on the project as part of the Council's conditions on the master plan. Bonneville completed and distributed the Draft Environmental Impact Statement (DEIS) for the "Grande Ronde - Imnaha Hatchery Project" on May 29, 2003.

On June 2, 2003 these documents were submitted to the ISRP for review. On August 12, 2003 the ISRP completed the review of the step submittal (Document ISRP 2003-12). The ISRP continued to have concerns with three of the previously identified nine issues.[17] A primary issue of concern was the current detail of the monitoring and evaluation plan (issue 1).

On October 16, 2003 the NEOH Core Team[18] responded to the ISRP's comments and questions raised in the Step 2 review of the NEOH Spring Chinook Master Plan (ISRP document 2003-12, August 12, 2003), and on October 27, 2003 a meeting was arranged and facilitated by Council staff between members of the NEOH Core Team and the ISRP. This meeting helped the Core Team to understand the remaining ISRP concerns regarding the monitoring and evaluation plan.

Based on the October 16, 2003 response and the October 27, 2003 meeting with the NEOH Core Team, on November 17, 2003 the ISRP provided a follow-up to its Step 2 review of the Northeast Oregon Hatchery (NEOH) Spring Chinook Master Plan (ISRP document 2003-12). As discussed at the meeting, the ISRP found that the NEOH Core Team's response adequately addressed the ISRP's concerns related to the genetic breeding plan (issue 3), and the harvest framework, forecasting, and escapement goals (issue 5). However, the ISRP found that the submittal still did not constitute a complete monitoring and evaluation plan (issue 1) that provided adequate detail to allow for a technical review. As part of the review the ISRP provided specific recommendations of the development of an appropriate monitoring and evaluation plan.

The NEOH Core Team re-submitted a monitoring and evaluation plan on March 1, 2004 for ISRP review. On May 18, 2004 the ISRP provided a positive review of the monitoring and evaluation plan (Document ISRP 2004 -10).

The ISRP commented that the monitoring and evaluation plan was an excellent working draft for the NEOH Imnaha and Grande Ronde subbasin spring Chinook salmon program. The ISRP also commended the NEOH Core Team on being among the first to bring the modern environmental monitoring and assessment program (EMAP) probabilistic sampling procedures into the Columbia Basin, and strongly endorsed the development of the EMAP-type probabilistic sampling scheme for redd counts to complement current surveys.

Though the review was positive, the ISRP raised additional issues to be addressed as part of the Step 3 submittal of the monitoring and evaluation plan. A key issue raised by the ISRP addressed the need for a more thorough prioritization of monitoring and evaluation efforts.

During the same period, Bonneville completed the Draft Environmental Impact Statement and released it for public review in May 2003. Because proposed NEOH facilities were either within

[17] *"Overall, this response is much improved over the previous response; however the ISRP has continued concerns for ISRP issue 3 (Genetic breeding plans), issue 5 (forecasting and escapement goals), and with the lack of detail presented in the Monitoring and Evaluation Plan (Appendix A)"* (ISRP document 2003-12).

[18] Core Team members include representatives from the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Oregon Department of Fish and Wildlife, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Bonneville Power Administration, Northwest Power and Conservation Council, and engineering consultants.

(Imnaha Final Rearing Facility and Imnaha Satellite Facility), above (Lookingglass Hatchery), or below (Lostine River Hatchery and Lostine Adult Collection Facility) a designated Wild and Scenic River corridor, Bonneville entered into a Wild and Scenic Rivers Act Section 7 consultation with the U.S. Forest Service, which administers the wild and scenic river management standards for the Imnaha and Lostine rivers. The U.S. Forest Service reviewed the DEIS to determine if the proposed facilities would have adverse effects to the Imnaha and Lostine rivers. The preliminary determination was that the Imnaha Final Rearing Facility as proposed adversely affected the free-flowing nature of the Imnaha River.

The NEOH Core Team determined that the concerns raised by the USFS created too much uncertainty regarding the future of the proposed Imnaha Final Rearing Facility. A sub-group of the NEOH Core Team developed alternatives in the event that the Imnaha Final Rearing Facility had to be dropped from the NEOH project. Bonneville contracted with an engineering consultant to analyze the sub-group alternatives and to develop additional alternatives. In January 2004 the NEOH Core Team decided to eliminate the Imnaha Final Rearing Facility as part of the NEOH project and to support an alternative that called for a 50/50 split of the Imnaha stock between the proposed Lostine River Hatchery and a modified Lookingglass Hatchery.

The preferred alternative was supported by co-managers for several reasons:

- splitting the stock would minimize risks associated with a catastrophic event
- provide more flexibility for co-managers
- acceptable “footprint” (the actual area of disturbed ground) of both hatcheries
- acceptable environmental impact caused by both hatcheries
- promotes true co-management and better relationships

The NEOH core team, with the assistance of HDR Engineering, Inc., developed and analyzed several alternatives to the Imnaha Final Rearing Facility. During meetings held on December 18, 2003 and January 13, 2004 the NEOH core team agreed to split the Imnaha production between the proposed Lostine River Hatchery and the existing Lookingglass Hatchery. All Imnaha adults used for broodstock would be held and spawned at the Lostine River Hatchery. The Imnaha stock would be incubated at the Lostine River Hatchery until the eyed stage, at which point half would be transferred to Lookingglass Hatchery for the remainder of incubation and final rearing.

The Biological Assessment (BA) and request for formal consultation was mailed to USFWS and NOAA Fisheries on May 26, 2004. In addition, the Final Environmental Impact Statement was published in the federal register on July 30, 2004 for the Grande Ronde - Imnaha Spring Chinook Hatchery Project.

On August 3, 2004 the NPT, Confederated Tribes of the Umatilla Indian Reservation, and Oregon Department of Fish and Wildlife submitted Step 2 documents to the Council. The submittal included the following:

- revised preliminary design drawings
- revised preliminary design report
- final environmental impact statement

- cost estimates
- table outlining co-manager tasks, responsibilities & potential funding source

The submittal focused on four facilities, including the modifications to existing facilities and new construction. The new construction included a new incubation and rearing facility in the Lostine River Basin to accommodate the Lostine stock production (250,000 smolts) and provide adult holding and incubation for the Imnaha stock, and rear half of the total Imnaha production (245,000 smolts). In addition, a new adult capture facility on the Lostine River was proposed. The submittal proposed modification of existing facilities at Lookingglass Hatchery to accommodate the other stocks (i.e. Upper Grande Ronde 250,000 smolts, Catherine Creek 250,000 smolts, and Lookingglass 150,000 smolts) and the remaining half of the Imnaha stock (245,000 smolts), and the existing Imnaha Satellite Facility to improve adult collection and juvenile acclimation.

At the October 13, 2004, meeting in Missoula, the Council approved the preliminary design proposal and recommended conditions for approval of the final design and construction. These conditions were:

- *Costs*: The Council recommended that an independent value analysis be initiated on the preliminary designs. The Council proposed that the capital construction costs associated with the proposed modifications at Lookingglass Hatchery and the Imnaha satellite facility, and the new construction associated with the new Lostine facilities (hatchery and adult trap) would not exceed the current preliminary estimate of $16,848,637.[19]

- *Monitoring and Evaluation*: The Council recommended that additional time was necessary before providing additional direction to the M&E efforts in the Grande Ronde and Imnaha basins from the co-managers, and how the plan would fit and that a more confirmed regional approach.

- *Currently Permitted Program and Co-managers Responsibilities*: The Council recommended that the Currently Permitted Program and documents that provide co-managers responsibilities continue to be defined as part of the Step 3 final design submittal.

## IV. Step 3 of the Three-Step Review Process

On March 16, 2006 the NPT, Confederated Tribes of the Umatilla Indian Reservation, and ODFW in coordination with the U.S. Fish and Wildlife Service submitted Step 3 documents to the Council.

During the final design process, it was determined that significant rearing space modifications at the Lookingglass Hatchery would not be needed to accommodate all desired fish production if the proposed Lostine River Hatchery is built to rear the Lostine River production and half of the Imnaha River production.

[19] This cost was to include land acquisitions/easements, capital construction, engineering, administration, inspecting overhead and taxes.

The Lower Snake River Compensation Program (USFWS) assumed responsibility for funding and implementing improvements at Lookingglass.[20] A water treatment system for incubation and early rearing water is now operational at Lookingglass Hatchery. Electrical upgrades along with a new back up generator are expected to be in place by August 2006. Therefore, the NEOH Step 3 submittal does not include modifications to Lookingglass Hatchery.

The final design submittal proposes new construction of an incubation and rearing facility in the Lostine River Basin to accommodate the Lostine stock production (250,000 smolts) and provide adult holding and incubation for the Imnaha stock, and rear half of the total Imnaha production (245,000 smolts). In addition, the submittal proposes a new adult capture facility on the Lostine River is proposed as well as improvement to the existing Imnaha Satellite Facility (i.e., Gumboot) to improve adult collection and juvenile acclimation.[21]

**ANALYSIS:**

The Step 3 documents contain information and description regarding construction of a new hatchery and adult collection facility on the Lostine River and modification of the Imnaha Satellite Facility. In addition, the cover memo contains a description of each of the submittal documents and issues involved with their development, including:

- Value Analysis/Engineering reports
- Final design drawings
- Cost estimates and start-up costs
- Final NEOH monitoring and evaluation
- Prioritization of the NEOH Monitoring and Evaluation Plan
- Co-manager Responsibility Framework
- Relationship to regional issues

The intent of the submittal is to address 1) program requirements and elements of the Three-Step Review Process, 2) the technical questions and concerns that were raised during the Step 2 review, and 3) any noted changes in the project that arose since that decision. The Step 2 approval was based on the following condition(s) being addressed as part of the Step 3 submittal.

At the April Council meeting, staff provided an overview of the step documents of the proposed final designs and costs for the new hatchery and adult collection facility on the Lostine River and modification of the Imnaha Satellite Facility to the Fish and Wildlife Committee. Based on this overview the Fish and Wildlife Committee supported the following recommendations for the Council.

[20] The USFWS administers and funds operations at Lookingglass through the LSRCP program.
[21] The necessary improvements to Lookingglass Hatchery have been completed to accommodate the other stocks (i.e. Upper Grande Ronde 250,000 smolts, Catherine Creek 250,000 smolts, and Lookingglass 150,000 smolts) and the remaining half of the Imnaha stock (245,000 smolts) of the Currently Permitted Program (CPP).

## I. Specific Conditions approved by the Council on October 13, 2004 regarding Step 2 approval.

### A. Costs

The Council recommended as part of the Step 2 decision that an independent value analysis be initiated. The value analysis was carried out in two phases: (1) a Value Assessment (VA) of the entire project was performed by the final-design engineers and the NEOH Core Team and, (2) a Value Engineering assessment (VE) was performed by an independent team of consultants.

The VA process involved all of the project participants in the re-assessment of the total program along with defending challenges of all the pertinent basic design and programmatic elements. The VE assessment focused engineering into further design refinements. The results from the VA then went through the VE process, which focused in more detail on methods and materials to accomplish the project goal.

As outlined and detailed in the Step 3 documents, the Value Engineering (VE) report outlines estimated additions of $2,800,000 and savings of $1,515,000 for a net addition of $1,285,000 to the baseline cost estimates that had been presented as part of the Step 2 designs. The outcome of the VE identified some savings, some additional needs, confirmed the proposed design, and recommended design changes to reduce future maintenance costs. The final component figuration incorporates options recommended in the VE report. The total cost for this project is within the estimate in the Step 2 decision. Cost of construction for the proposed new and modified facilities is estimated at $16,462,309. This is consistent with the October 20, 2004 recommendation by the Council during the Step 2 approval and authorization to proceed with Step 3 that, "*the capital construction costs associated with the proposed modifications at Lookingglass Hatchery and the Imnaha satellite facility, and the new construction associated with the new Lostine facilities (i.e. hatchery and adult trap) not exceed the current preliminary estimate of $16,848,637*." The Step 2 cost estimate included anticipated modifications at Lookingglass Hatchery[22] that are not included in the Step 3 submittal. This did not result in savings, however, because the cost of construction materials at the other three facilities increased.

Fish and Wildlife Committee Recommends:

The Fish and wildlife Committee recommends the Council approve the capital construction costs as detailed in the Step 3 submittal for the new hatchery and adult collection facility on the Lostine River and modification of the Imnaha Satellite Facility. This recommendation should be conditioned on Bonneville confirming that the planning costs associated with staff support for transition of ongoing study coordination, data dissemination, and reporting can be capitalized. This effort is estimated to cost about $95,751 for the remainder of the Fiscal Year 2006 contract period.

[22] As outlined in the Step 2 documents it was anticipated that he construction costs associated with Lookingglass was $954,000.

This recommendation would require new O&M costs in future years. As detailed in the submittal, the anticipated cost associated with the new facilities is approximately $489,000 above the existing operation and maintenance costs of $336,689.[23] It is anticipated that this cost will begin in Fiscal Year 2008 when the new hatchery is operating. These costs must be budgeted as part of the Blue Mountain provincial project budgets for fiscal years 2008 and 2009.

B. Monitoring and Evaluation

In Step 2 the ISRP and Council approved the monitoring and evaluation plan for the project, which anticipates those activities will cost approximately $2.4 million per year. The ISRP recommended, and the Council requested, that the sponsor prioritize monitoring and evaluation activities as part of the Step 3 submittal.

The co-managers (i.e., Nez Perce Tribe, Oregon Department of Fish and Wildlife, and the Confederated Tribes of the Umatilla Indian Reservation) developed a prioritization scheme and submitted the plan as part of the Step 3 submittal. The *Prioritization of the NEOH Monitoring and Evaluation Plan* document describes the approach used in setting priorities within the NEOH M&E Plan and the associated project costs for three funding alternatives (i.e., $2.1, $1.5, or $1.1 million).

The *Prioritization of the NEOH Monitoring and Evaluation Plan* document is a detailed analysis of monitoring and evaluation objectives and will be very useful as the region proceeds with the review and prioritization associated with the fiscal years 2007 - 2009 project solicitation. This is especially true for the efforts anticipated in the Grande Ronde and Imnaha subbasins. The NPT also recommended coordinating and summarizing information from the 18 different ongoing projects that account for many of the specific actions in the NEOH M&E Plan. These activities are addressed in Objective 8 in the NEOH M&E plan and proposal (2007-132-00).[24] This base level of monitoring and evaluation will be critical to evaluate work at scales beyond that of individual projects and to facilitate development of a regional approach to monitoring.

Fish and Wildlife Committee Recommends:

The project's current monitoring and evaluation is funded through Project 1998-007-02 at a level of $244,526 in Fiscal Year 2006.[25] The NEOH M&E Plan (Proposal 2007-132-00) is being considered in the fiscal years 2007 - 2009 project solicitation and review, as are other monitoring and evaluation objectives (i.e., Project 1997-015-01[26] and Proposal

[23] The current Operation and Maintenance (O&M) costs associated with the CPP are addressed through Project #1998-007-02 ($581,215 in FY 2006) - M&E Phase at $244,526 and Operation and Maintenance Phase at $336,689. The $489,000 is derived in the difference between FY 2006 O&M costs and the anticipated FY 2008 O&M costs.
[24] BPA PISCES Work Elements 118, 119, 132, 159, 160, and 185 are associated with this base level of M&E application. Cost associated with this need is estimated at approximately $164,046.
[25] This task is addressed through Project #1998-007-02 ($581,215 in FY 2006) - M&E Phase at $244,526 and Operation and Maintenance Phase at $336,689.
[26] *Imnaha Smolt Survival and Smolt to Adult Return Rate Quantification*

2007-337-00[27]). Accordingly, the Fish and Wildlife Committee recommends that the Council defer consideration of funding for additional monitoring and evaluation to that review process.

C. Currently Permitted Program and Co-managers Responsibilities

During the Step 3 final design process the participating agencies developed agreements to address the administrative, budget, and programmatic relationships between the parties involved in the NEOH project.

The NEOH Core Team has developed a MOU-like table entitled Co-managers Responsibility Framework that outlines each co-manager's tasks and responsibilities and the current or likely funding source for each activity.

Work continues on developing an MOU that would define the administrative, budgetary, and programmatic relationships between BPA and the USFWS for NEOH (as a fish and wildlife program-based initiative) and the facilities and goals developed for the LSRCP program. BPA and the NPT began negotiating an MOA for operation of the Lostine River Hatchery in mid-December 2005. This MOU, which would tie in the responsibilities of the USFWS, is expected to be completed by early summer 2006.

Fish and Wildlife Committee Recommends:

The Fish and Wildlife committee recommends that the Council insist a confirmed management agreement be in place prior to construction.

## II. Updated elements regarding implementation

A. Endangered Species Act

Revised biological opinions for the project were issued by the USFWS[28] in July 2004 and by NOAA Fisheries[29] in October 2004. These biological opinions were for the activities and facilities proposed in the Step 2 documents. During the course of the final design project changes were identified that required a Supplemental Analysis for ESA and NEPA.

To address these minor project changes a supplement to the Biological Assessment (BA completed in June 2004), was completed in March 2006 and is anticipated to be provided to USFWS and NOAA Fisheries in late March or early April 2006. A response to this supplement is anticipated by May 2006. If the agencies concur that the proposed changes will not result in a higher level of take than allowed in the biological opinions, the ESA consultation will be complete. If the agencies feel that project changes will result in

[27] *Oregon Plan Monitoring of Steelhead Status, Trend, and Habitat in the Grande Ronde River Subbasin*
[28] File No. 1-17-04-F-0385[8330.0385 (04)]; Tracking No. 04-2941.
[29] No.: 2004/00615.

greater take they may opt to develop a new biological opinion on project changes. However, it is anticipated the agencies will agree the take level will not change.

B. National Environmental Policy Act

The Final Environmental Impact Statement was published in the Federal Register on July 30, 2004 for the Grande Ronde - Imnaha Spring Chinook Hatchery Project. The Record of Decision (ROD) to proceed with final design was signed on March 11, 2005. Due to some design changes during the final design phase, a supplemental analysis (SA) on the Final EIS was completed in February 2006; however, a few additional items are required before the document can be finalized. The anticipated date of the finalization of the SA is early to mid-April 2006. Once the SA is complete, an announcement regarding its availability will be published in the Federal Register and the document will be released for a 30-day public comment period. Following the public comment period, the second ROD will be developed along with a response to comments. The SA then will be reviewed at Bonneville before being signed by the administrator. The second ROD is anticipated by Bonneville in mid-June 2006.

C. Wild and Scenic River Act Consultation

The U.S. Forest Service (USFS) issued a final determination pursuant to Section 7(a) of the Wild and Scenic Rivers Act for the proposed project's components as revised since the Final EIS. In letters dated February 13th and 14th 2006, the district ranger for the Wallowa–Whitman National Forest determined that recent design changes for the Imnaha weir and intake structure would not create effects different than those already analyzed in the FEIS for the Grande Ronde - Imnaha Spring Chinook Hatchery Project so there was no need for additional analysis under the requirements of the Wild and Scenic Rivers Act. A determination by the Wallowa-Whitman Forest supervisor to re-authorize the special use permit to the USFWS for the Imnaha Satellite Facility is forthcoming.

D. Water Rights

Surface and groundwater use permit applications were submitted to the Oregon Water Resources Department (OWRD) in November 2005. An Initial Review determination was issued by the OWRD on January 27, 2006, indicating preliminary findings and requesting additional information. The Initial Review stated that surface water was not available in the amount requested (18 cfs) and that it was unlikely that a permit would be issued.[30] Since this Initial Review determination, ODFW has written to OWRD stating support for the water use permit application based on the mitigation proposed for the bypass reach during periods of low flow and the overall benefits to the Lostine River and ESA-listed species that the project will provide. The OWRD also requested evidence of

[30] This preliminary finding was based on 1) Concern that existing instream flow rights held by ODFW are not always met due to natural variations in stream flow, and that water use by the hatchery would exacerbate this problem in the reach between the intake and outfall structures (approx. 2,600 ft); and 2) Oregon Administrative Rules that prohibit the use of water from April 15 through September 30 in rivers where ESA-listed species exist. However, there are certain water uses that are exempted from this rule, and the hatchery clearly falls within the exemption requirements.

land use approval (i.e. zoning permit from Wallowa County). The zoning permit is anticipated to be issued in early April 2006. Once issued, the water use permit application process will continue with a *proposed* final order issued approximately 30 days after the zoning permit is issued. A *final* order would be issued within 60 days of the close of public comment and issuance of a water use permit (late August 2006).

E. Miscellaneous Permits

A joint permit application requesting authorization to fill a small amount of wetlands and to work below the ordinary high water mark of the Imnaha and Lostine rivers has been submitted to the U.S. Army Corps of Engineers and to the Oregon Department of State Lands (ODSL) for both the proposed Lostine River Hatchery and for the Imnaha Satellite Facility upgrades. These applications currently are under review by the agencies, and a decision is anticipated by June 2006 at the latest. Preliminary discussions with the regulators indicate that the activities will be authorized; however, public comment for the proposed Lostine River Hatchery must be considered before the Corps authorizes the activities. Concurrent with the wetland and waters permits, a water quality certification currently is under consideration with the Oregon Department of Environmental Quality.

The proposed Lostine River Hatchery has been the subject of two consecutive public hearings overseen by the Wallowa County Planning Commission. A wetland variance authorizing wetland encroachment recently was approved by the Commission. An application to use an easement along Granger Road for water supply and electric lines is being considered by the Wallowa County Board of Commissioners. Additionally, a road maintenance agreement between the county, Bonneville, and the Nez Perce Tribe is being considered (see Attachment 1). The wetland variance, approval of the utility easement application, and the road maintenance agreement will be conditions of the zoning permit (also mentioned under the section outlining water rights) that is anticipated to be issued in April 2006.

Fish and Wildlife Committee Recommends:

The Fish and Wildlife Committee recommends that the Council ask Bonneville to provide, prior to construction, an update regarding the outcomes of the supplement to the Biological Assessment, Supplemental Analysis, special use permit, and water use permit application.

## Attachment 1: Road maintenance agreement between the county, Bonneville, and the Nez Perce Tribe.

**General Road Maintenance Agreement for Granger Road**
**between**
**Bonneville Power Administration and Wallowa County.**

General

Bonneville Power Administration (BPA) and the Nez Perce Tribe (NPT) plan to construct and operate a fisheries facility that is accessed via Granger Road, a public road, off the Lostine River in Wallowa County.

It is the intent of BPA and NPT to address practical maintenance concerns with Wallowa County Board of Commissioners (WCBOC) relative to maintenance of Granger Road associated with fisheries facility use of that road.

*Agreement*

BPA and NPT propose to maintain Granger Road during the operational life of the Lostine Fisheries Facility in the following manner:

A. During the winter operation, NPT crews will keep Granger Road snow plowed for access at reasonable hours. NPT would not be able to ensure the road being clear of blocking snow on an emergency basis, at all hours.

B. Gravel potholes will be reasonably maintained during the course of the *year* based on a minimum of monthly NPT inspection.

C. Grading in the form of motor grader scarification *and the* addition of the minimum amount of gravel that might be needed for spot repair will be done if needed, based upon an inspection by NPT *and* the WCBOC on a bi-annual schedule. In addition, NPT will inspect and will initiate any similar minor grading repair that might be warranted, in their opinion, and an annual basis.

D. Should dust become a nuisance on the roadway, as determined by NPT communication with other Granger Road users, NPT will apply an approved dust inhibitor on the length of Granger Road. NPT will assume that a maximum of two applications will be required annually.

E. Authorized weed control material will be applied when needed as determined by collaborative agreement between NPT and WCBOC.

Bonneville Power Administration: _____

Ken Kirkman, Project Manager,

Bonneville Power Administration

Wallowa County Board of Commissioners: _____

Mike Hayward, Chairman,
Wallowa County Board of
Commissioners

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# Final Design and Construction of the Northeast Oregon Hatchery

May, 2006

Northwest Power and Conservation Council

# Significance

- New construction and modification of existing facilities
- Total cost of construction is estimated  at $16,462,309
- Incubation, rearing and adult collection facility on the Lostine River
  - Lostine adults and 250,000 smolts
  - Imnaha adults and 245,000 smolts
- Improvements to the Imnaha satellite facility

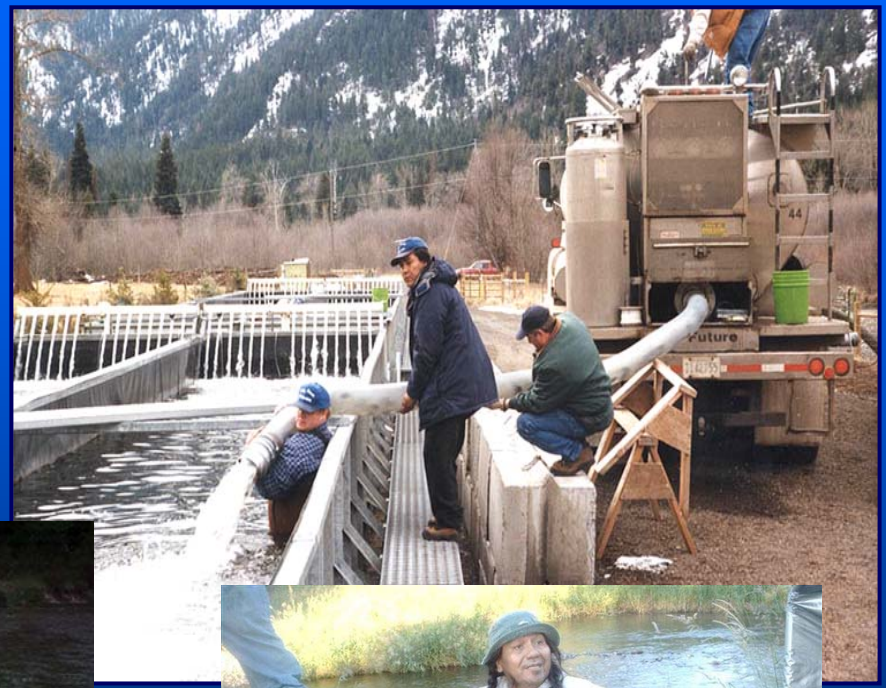
# Background

- Adopted in the 1987 Program
- Authorized in 1988 for master plan
- 1994 Proposed endemic/conventional broodstock
  - 1997 Captive broodstock
  - 1998 Endemic broodstock
- Master Plan - September 20, 2000
- Preliminary Design and Environmental Review - October 13, 2004
- Final Design – Submitted March 16, 2006

# Northeast Oregon Hatchery

NPT ODFW CTUIR USFWS

# Northeast Oregon Hatchery



Northwest Power and Conservation Council

# Benefits from NEOH

- 25% Increase in production
- SAR of 0.1% to 1.0% = 40 to 4,000 additional fish
- Expect improved fitness in hatchery due to improved rearing conditions
  - » Reduce/eliminate long distance trucking
  - » Lower rearing densities
  - » Improved fish health segregations
  - » Rearing in natal watershed
- Implementation of high priority project identified in Grande Ronde and Imnaha subbasin plans

# FCRPS Biological Opinion

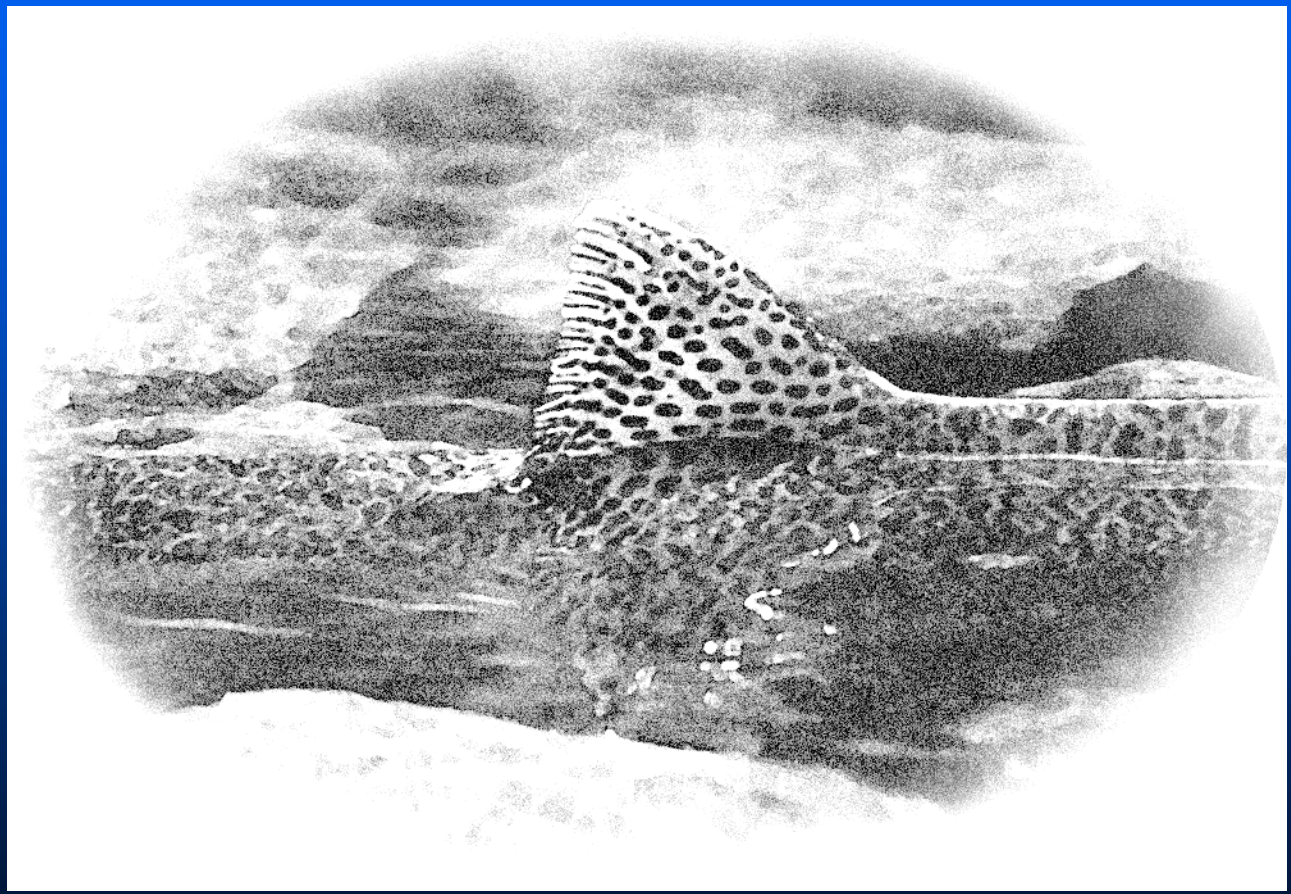
- 2000 BiOp RPA and 2004 BiOp UPA "BPA will continue to fund the planning process for the Northeast Oregon Hatchery production program…as long as NOAA Fisheries determines these programs to be an essential and effective contribution to reducing the risk of extinction for this ESU [Snake River]."

- NOAA letter April 11, 2006 "…we believe that the NEOH project, as presently conceived and outlined in the final design submittal, is needed to help achieve conservation goals for the Snake River spring/summer Chinook ESU…as it should assist in recovering the Snake River spring/summer Chinook ESU in the short term by increasing the number of natural spawning fish and reducing spatial structure and genetic diversity risk for several Chinook populations."

- 23% increase in production for the Snake River spring Chinook ESU -- only project on list that will increase production

- Remand Hatchery Workgroup developing "crediting" scheme

# Monitoring and Evaluation Plan for Northeast Oregon Hatchery Imnaha and Grande Ronde Subbasin Spring/Summer Chinook Salmon



Jay Hesse &
James Harbeck
Nez Perce Tribe

Richard Carmichael
Oregon Department
of Fish and Wildlife

# M&E Implementation Decision

- NEOH M&E plan implementation level deferred/subject to funding 2007-09 process and misc. grants.

# NEOH Treatment and Reference Streams

# NEOH M&E Plan Scope

- Six management objectives structured around attributes of the RASP definition of supplementation.
- One management objective for description of resource status (population and habitat).
- One management objective for effective incorporation of program findings into fisheries management process.

Management Objective

Management Assumption

(transposed into monitoring and evaluation objectives)

Hypotheses

Performance Measures

Methods

# What are you getting with the NEOH M&E plan?

- Compliance with the NPCC 3 Step Process for NEOH (new facilities for an existing integrated mitigation program).
- Formal design responding to ISRP/AB, NPCC FWP, and others call for formal experimental study designs on supplementation programs.
- Integrates/links data from 18 ongoing BPA projects and recommends expansion or additional monitoring to fill critical gaps.

# Linking Ongoing and New Data Collection

| Data Collection Activity Category | Lostine River | Upper Grande Ronde | Catherine Creek | Minam River | Wenaha River | Imnaha River | Secesh River | Marsh Creek |
|---|---|---|---|---|---|---|---|---|
| **Small Scale Studies** | na | na | na | na | na | | na | na |
| **In –Hatchery Monitoring** | ☻ | ☻ | ☻ | na | na | ☻ | na | na |
| **Adult Abundance (direct)** | ☻ | ☻ | ☻ | | | ☻ | ☻ | |
| **Spawning Ground Surveys (Redds and Carcasses)** | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ |
| **Harvest Monitoring** | ☻ | | ☻ | | | ☻ | | |
| **Emigrant Trapping** | ☻ | ☻ | ☻ | ☻ | | | ☻ | ☻ |
| **Fish Health Monitoring** | | ☻ | ☻ | | | ☻ | na | na |
| **PIT Tagging (life Stage specific survival)** | | | | | | | | |
| **Genetics Monitoring** | ☻ | | ☻ | | | | | |
| **EMAP (Habitat, juveniles, redds)** | | | | | | | na | na |
| **Database Management** | | | | | | | | |
| **Coordination/Reporting** | | | | | | | | |

# Linking Ongoing and New Data Collection

| Data Collection Activity Category | Lostine River | Upper Grande Ronde | Catherine Creek | Minam River | Wenaha River | Imnaha River | Secesh River | Marsh Creek |
|---|---|---|---|---|---|---|---|---|
| **Small Scale Studies** | na | na | na | na | na | | na | na |
| **In –Hatchery Monitoring** | ☻ | ☻ | ☻ | na | na | ☻ | na | na |
| **Adult Abundance (direct)** | ☻ | ☻ | ☻ | | | ☻ | ☻ | |
| **Spawning Ground Surveys (Redds and Carcasses)** | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ |
| **Harvest Monitoring** | ☻ | | ☻ | | | ☻ | | |
| **Emigrant Trapping** | ☻ | ☻ | ☻ | ☻ | | ☺ | ☻ | ☻ |
| **Fish Health Monitoring** | ☺ | ☻ | ☻ | | | ☻ | na | na |
| **PIT Tagging (life Stage specific survival)** | ☺ | ☺ | ☺ | ☺ | | ☺ | ☺ | ☺ |
| **Genetics Monitoring** | ☻ | ☺ | ☻ | ☺ | ☺ | ☺ | ☺ | ☺ |
| **EMAP (Habitat, juveniles, redds)** | | | | | | | na | na |
| **Database Management** | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ |
| **Coordination/Reporting** | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ | ☺ |

# Linking Ongoing and New Data Collection

| Data Collection Activity Category | Lostine River | Upper Grande Ronde | Catherine Creek | Minam River | Wenaha River | Imnaha River | Secesh River | Marsh Creek |
|---|---|---|---|---|---|---|---|---|
| **Small Scale Studies** | na | na | na | na | na | LP | na | na |
| **In –Hatchery Monitoring** | ☻ | ☻ | ☻ | na | na | ☻ | na | na |
| **Adult Abundance (direct)** | ☻ | ☻ | ☻ | **E** | **R** | ☻ | ☻ | LP |
| **Spawning Ground Surveys (Redds and Carcasses)** | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ | ☻ |
| **Harvest Monitoring** | ☻ | LP | ☻ | LP | LP | ☻ | LP | LP |
| **Emigrant Trapping** | ☻ | ☻ | ☻ | ☻ | **R** | ☺, **E** | ☻ | ☻ |
| **Fish Health Monitoring** | ☺ | ☻ | ☻ | LP | LP | ☻, **R** | na | na |
| **PIT Tagging (life Stage specific survival)** | ☺, **C, E** | ☺, **C, E** | ☺, **C, E** | ☺, **C, E** | **R** | ☺, **C, E** | ☺, **E** | ☺, LP |
| **Genetics Monitoring** | ☻ | ☺, **E** | ☻ | ☺ | ☺ | ☺, LP | ☺ | ☺ |
| **EMAP (Habitat, juveniles, redds)** | **R** | **R** | **R** | **R** | **R** | **R** | na | na |
| **Database Management** | ☺, **E** | ☺, **E** | ☺, **E** | ☺, **E** | ☺, **E** | ☺, **E** | ☺, **E** | ☺, **R** |
| **Coordination/Reporting** | ☺, **C** | ☺, **C** | ☺, **C** | ☺, **C** | ☺, **C** | ☺, **C** | ☺, **C** | ☺, **R** |

# Monitoring and Evaluation Costs

18 Ongoing projects contributing data ☻ and ☺

- FWP Blue Mountain $2,121,000
- FWP other (Mountain Snake, System-wide) >$1,002,820
- LSRCP Evaluations (ODFW, NPT) $614,000
- Total Ongoing >$3,737,820

Base implementation identified as High Priority in 2007-09 C

- Coordination/Reporting and PIT Tags $250,520

Essential implementation level E, C $1,127,137

Recommended implementation level R, E, C $1,572,076

Lower Priority (full plan) LP, R, E, C $2,154,923

# Hatchery Residences

- Lookingglass: 3 + bunkhouse
- Irrigon: 6
- Warm Springs: 3
- Umatilla: 4
- Cle Elum: 7
- McCall: 3 + bunkhouse
- Clearwater: 7
- Magic Valley: 4
- Rapid River: 3 + bunkhouse
- Sawtooth: 5
- Entiat: 4
- Leavenworth: 4
- Carson: 3 + 3 duplexes
- Abernathy: 3
- Winthrop: 5

# Value Engineering Analysis

- Identified *potential* savings $1.5 million

  (Combine utility building with hatchery, condense site, alternative construction materials).

- Identified *potential* added costs $2.8 million.

- Confirmed Engineering designs and assumptions.

# Required Permits and Authorizations

- Zone Permit – Wallowa County
- Easement – Wallowa County
- Road Maintenance Agreement – Wallowa County
- Wetland Variance – Wallowa County, Oregon DSL, USACOE
- Water Quality Permits – Oregon DEQ
- Special Use Permit (Imnaha) – U.S. Forest Service
- ESA Compliance and Supplemental Biological Assessment – NOAA and U.S. Fish and Wildlife Service
- Removal and Fill Permits – USACOE, Oregon DSL
- Water Use Permits – Oregon WRD

# Budgetary/Economic Effects

| | |
|---|---|
| Costs to date | $9,318,000 |
| Construction Costs | $16,462,309 |
| O&M (’06 - Current) | $337,000 |
| (’09 - Estimate) | $826,000 |
| M&E (’06 - Current) | $245,000 |
| (’09 – Estimate) | Up to $2,645,854 |

# Recommendations

- Recommend that Bonneville fund the capital construction of the facilities related to the Northeast Oregon Hatchery.
- Previous funding conditions have been satisfied with the exception of a confirmed management agreement.
- Monitoring and evaluation deferred to the fiscal years 2007 - 2009 review process.
- Bonneville provide an update regarding the outcomes of the necessary supplements and permits.

# Northeast Oregon Hatchery Program

## Presentation to the
## Northwest Power and Conservation Council

**May 9, 2006**

**Rob Jones**
Salmon Recovery Division
NOAA Fisheries Service – Northwest Region

# Origin of Hatchery Programs in Northeast Oregon

## Lookingglass & Imnaha Programs

**Started in 1982 under Lower Snake River Compensation Plan**

# Lower Snake River Compensation Plan

**Hatchery facilities in N.E. Oregon have never met the compensation authorized for "losses caused by the construction and operation of Ice Harbor, Lower Monumental, Little Goose, and Lower Granite [Dams]" (Public Law 85-624).**

# Compensation Obligation

**In the Grande Ronde system, except for fisheries on surplus hatchery fish in Lookingglass Creek,**

- **No tribal fishing since before ESA listing 15 years ago.**
- **No public fishing for salmon has occurred since the 1970's.**
- **Productivity too low for fish to replace themselves, leading to continued decline.**

# New Rescue Hatchery Programs

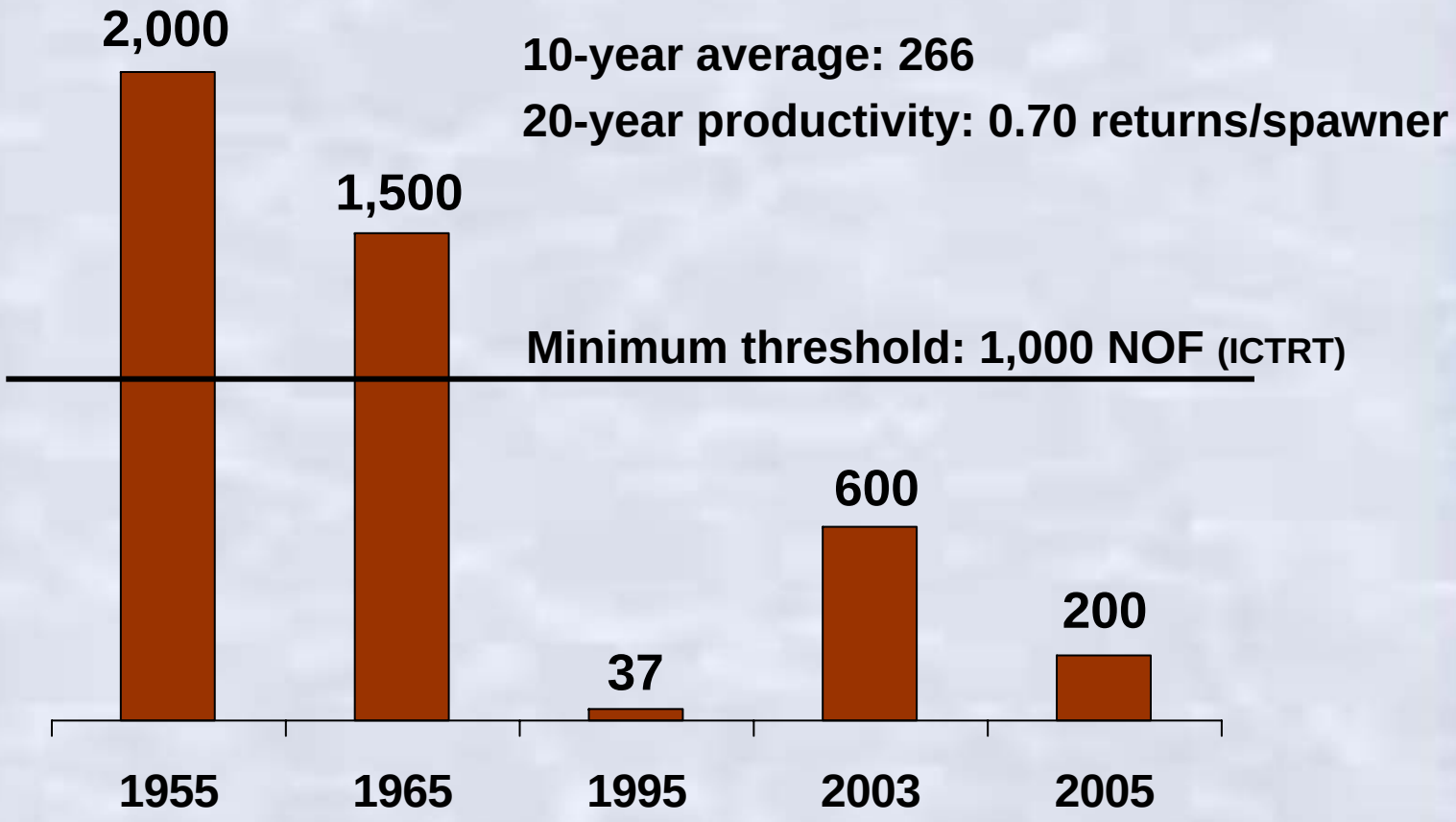
**3 rescue programs were added to the programs at the original facility (Lookingglass Hatchery) in 1996:**

- **Upper Grande Ronde**
- **Catherine Creek**
- **Lostine River**

# Lostine River Spring Chinook Salmon

**Lostine Chinook salmon face a greater than 25% chance of extinction in 100 years and are at High Risk (ICTRT).**

# Lostine River Spring Chinook Salmon




10-year average: 266

20-year productivity: 0.70 returns/spawner

Minimum threshold: 1,000 NOF (ICTRT)

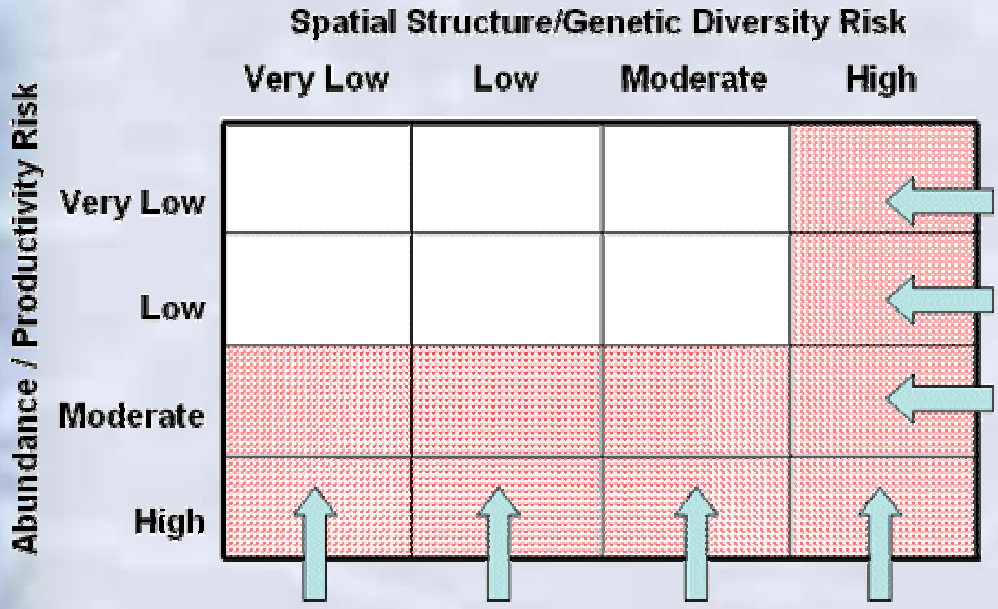
# NEOH (Northeast Oregon Hatchery)

- **Hatcheries can benefit or harm the viability of salmon & steelhead**
- **NE Oregon hatchery programs have undergone considerable reform**

***Hatcheries are not one of the top five factors limiting Snake River Spring/Summer Chinook Salmon productivity.***

**(NOAA 2005 Report to Congress, Pacific Coastal Salmon Recovery Fund)**

# Draft Approach for Crediting Artificial Propagation




1. When hatchery programs preserve a population until the factors limiting recovery are addressed.
2. Jump-start self-sustaining populations after the factors limiting population productivity are addressed.
3. Reduce the hatchery-origin fish (HOF) proportion of natural spawners as natural-origin fish (NOF) abundance and productivity increases.
4. Reduce the influence of any HOF that potentially depress NOF productivity (i.e., HOF that do not share the same population dynamics and fitness as NOF).
5. Improve juvenile and adult fish passage at hatchery facilities.

1. When hatchery programs preserve a population until the factors limiting recovery are addressed.
2. When offspring from naturally spawning HOF jump-start self-sustaining populations after the factors limiting population productivity are addressed.
3. Reduce the influence of any HOF that potentially depress NOF productivity (i.e., HOF that do not share the same population dynamics and fitness as NOF).
4. Reduce the number of NOF killed or injured by hatchery water diversions.
5. Freshwater nutrient levels increase due to HOF carcasses.
6. Reduce HOF predation on NOF through HOF size, release timing and release location measures.
7. Reduce competition with NOF for food and space through HOF size, release timing and release location measures.

## NEOH (Northeast Oregon Hatchery)

# Need for NEOH

- ☑ Hatchery programs are buying time until natural productivity improves
- ☑ Achieve the LSRCP compensation obligation

# Summary

**NOAA Fisheries Service supports the NEOH Project because:**

1. **It can help preserve spring Chinook salmon until their productivity improves,**
2. **After productivity improves, it can help Chinook salmon become self-sustaining, and**
3. **It can help Federal dam construction and operation meet compensation obligations.**

**For more information:**

**Rob Jones**
**Hatcheries & Inland Fisheries Branch**
**Salmon Recovery Division**
**NOAA Fisheries – Northwest Region**
**(503) 230-5418**

**www.nwr.noaa.gov**