Chapter 1: Purpose and Need

1.1 Need for Action

The Snake River spring/summer **chinook** salmon native to the Grande Ronde and Imnaha Rivers of Northeast Oregon are listed as threatened and are protected by the Endangered Species Act (**ESA**[1]). Adequate, contemporary hatchery facilities are needed in mitigation and recovery[2] of these fish **stocks.**

Currently, the Lookingglass Hatchery in the Grande Ronde subbasin and the Imnaha Satellite Facility in the Imnaha subbasin are the only two existing permanent hatchery facilities for spring chinook in Northeast Oregon. Both of these facilities were built in the early 1980's. These facilities do not provide adequate space, the best available technical and scientific advancements, or suitable rearing and migration conditions to provide for the conservation and recovery of ESA-listed **species**. The National Oceanic and Atmospheric Administration Fisheries (**NOAA Fisheries**), U.S. Fish and Wildlife Service (**USFWS**) and local fishery and hatchery managers recognize that modernization and augmentation of hatchery facilities is needed to increase the success of mitigation efforts and to halt the decline of spring/summer chinook runs.

1.2 Purposes of Taking Action

Agency decision-makers and local fishery and hatchery co-managers will consider the following purposes (i.e. objectives) in evaluating alternative ways to meet the conservation and recovery needs described above:

- Provide adequate, contemporary hatchery facilities in the Grande Ronde and Imnaha subbasins to help in the conservation and recovery of ESA-listed spring/summer chinook salmon native to the Grande Ronde and Imnaha Rivers, and thus further the implementation of the Lower Snake River Compensation Plan's (**LSRCP**) hatchery fish **production** program.

- Coordinate the operation at the existing Lookingglass Hatchery and related LSRCP hatchery facilities with the Fish and Wildlife Program of the Northwest Power and Conservation Council (NPCC or Council), thereby aiding Bonneville Power Administration's (**BPA**) efforts to mitigate and recover anadromous fish affected by the Federal Columbia River Power System.

- Aid in BPA's fulfillment of mitigation and recovery goals outlined in the Biological Opinion from NOAA Fisheries (formerly known as the National Marine Fisheries Service [**NMFS**]) on operation of the Federal Columbia River Power System (NMFS 2000a).

- Achieve economic efficiencies by integrating management of fish production programs and facilities.

- Be consistent with the requirements of pertinent federal laws, regulations and executive orders, and other relevant plans and programs.

- Support the Nez Perce Tribe's (**NPT**) goal to restore anadromous fish **populations** and enhance the Tribe's opportunities to exercise treaty fishing rights.

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[1] See Chapter 6: Glossary for list of acronyms, abbreviations, and technical terms. These terms are **bold** the first time they appear.

[2] Throughout this Environmental Impact Statement the phrases mitigation and recovery, and conservation and recovery will refer to the legal mandates of the Northwest Power Act (to protect, mitigate and enhance fish affected by the Federal Columbia River Power System) and the ESA (to avoid jeopardy and aid in the conservation and recovery of listed species).

1.3 Decisions to be Made and Responsible Officials

BPA serves as the lead federal agency in developing this EIS because it will be evaluating whether to provide the funding to enable the final design, property acquisition (or lease), construction of any new facilities, improvements to any existing facilities, and operations and maintenance of any facilities. The NPT, the Confederated Tribes of the Umatilla Indian Reservation (**CTUIR**), and the Oregon Department of Fish and Wildlife (**ODFW**) are co-managers of the spring/summer chinook conservation and recovery program in Northeast Oregon. Though not federal agencies, they are the primary cooperating agencies for this EIS.

The USFWS, NOAA Fisheries, U.S. Forest Service (**Forest Service**), and other managers of habitat, fisheries and hatcheries in Northeast Oregon have been consulted during the development of this EIS. The Forest Service and the USFWS are cooperating federal agencies. The Forest Service will decide whether to authorize/permit facilities on lands under its jurisdiction along the Imnaha River.

The USFWS and NOAA Fisheries are the federal co-managers responsible for administering the LSRCP program. Their roles include funding LSRCP production, monitoring and evaluation. The federal co-managers must concur with the design of any new LSRCP facilities, approve any modifications to Lookingglass Hatchery and the Imnaha Satellite Facility, and work with other fisheries co-managers to settle any fish production issues that may occur with the addition or modification of any facilities.

1.4 Background

1.4.1 Regional Perspective

In 1937, Congress and the Franklin D. Roosevelt administration created BPA to market bulk electricity throughout the Pacific Northwest. Today, BPA, an agency within the U.S. Department of Energy, markets about half of the electricity in the region. The electricity comes mainly from 31 federal dams located on the Columbia River and its tributaries. The U.S. Army Corps of Engineers (**USACE**) and the U.S. Bureau of Reclamation operate these federal dams. Collectively, this hydropower generation system is called the Federal Columbia River Power System. The following summarizes key developments in fish and wildlife-related legislation, environmental compliance, and funding that are relevant to the purpose and need for taking action.

- In 1976, Congress authorized the USACE to implement the LSRCP (Public Law 94-587) to mitigate for the effects of construction and operation of four federal dams on the lower Snake River on ocean-migrating fish (also called **anadromous** fish). The LSRCP specifically aims to restore the numbers of returning adult salmon and **steelhead** by raising enough juvenile fish in hatcheries to help offset mortality associated with migrating past those four dams.

- The Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Northwest Power Act, 16 U.S.C. § 839 et seq) authorized BPA to protect, mitigate and enhance fish and wildlife affected by the Federal Columbia River Power System. The Northwest Power Act also created the Northwest Power and Conservation Council, which is responsible for establishing the fish and wildlife program under the Act and making recommendations to BPA on which projects to implement.

- Biological Opinions issued in 2000 by NOAA Fisheries and the USFWS require BPA, the USACE and the Bureau of Reclamation to manage the Federal Columbia River Power System to address the effects hydropower generation has had, and continues to have, on species specifically protected by the ESA. Primarily, the affected species include salmon, steelhead, sturgeon and bull trout. In addition

to recommending changes in FCRPS operations, the NOAA Fisheries Biological Opinion included actions to avoid jeopardy to protected species. These actions include habitat management, hatchery development and operation, and harvest levels for commerce, sport and tribal/cultural reasons.

- BPA has issued EISs with Records of Decision covering its Business Plan (1995), Wildlife Mitigation Program (1997), Watershed Management Program (1997), and Fish and Wildlife Program Implementation Plan. Each of these contains direction, standards and guidelines designed to help meet certain aspects of BPA's fish and wildlife mitigation and recovery responsibilities. These Records of Decision and EISs authorize and guide the Proposed Action, and are incorporated by reference in this EIS.

- BPA continues to invest over 100 million dollars annually throughout the Northwest to benefit protected anadromous fish (such as salmon and steelhead), **resident** fish (such as bull trout and sturgeon), and wildlife affected by the federal hydropower dams. BPA-funded projects include habitat protection and rehabilitation, water and vegetation management, hatcheries, fish screens and ladders, predator control, monitoring and evaluation, and research, among others. BPA helps develop and fund these projects, which are proposed and sponsored by private organizations, landowners, water users groups, water improvement districts, Indian tribes, and certain state and federal agencies. These projects help meet BPA's responsibilities under the Northwest Power Act and the Federal Columbia River Power System Biological Opinions of 2000 (NMFS 2000a; USFWS 2000).

- BPA reimburses the USACE's capital costs for constructing the LSRCP hatcheries and related facilities. Until fiscal year 2002, BPA also reimbursed the USFWS's costs of operating and maintaining those facilities. Now BPA directly funds the LSRCP operation and maintenance through the USFWS at approximately $17 million annually.

1.4.2 Grande Ronde-Imnaha Spring Chinook Management Perspective

Through the LSRCP in the early 1980s, the USACE funded the design, construction and operation of Lookingglass Hatchery as well as the associated fish trapping and release facilities in Northeast Oregon that served to mitigate for two stocks of Snake River chinook – one in the Grande Ronde River and one in the Imnaha River. The USFWS owns the LSRCP hatchery facilities (including Lookingglass Hatchery and the Imnaha Satellite Facility) and oversees their management and operation through cooperative agreements with the state and tribes. Figure 1-1 shows the existing and proposed hatchery facilities.

In 1988, the NPCC included the proposed Northeast Oregon Hatchery Project (NEOH) in its amended Fish and Wildlife Program to help meet its goal of doubling Columbia River anadromous fish runs. The NEOH project included plans for improving hatchery facilities int eh Grande Ronde and Imnaha subbasins. The proposed project's objective was to provide additional fish production above and beyond the LSRCP goals.

In the 1990s, under the ESA, the federal government listed several Snake River **salmonid** species as threatened or endangered, giving those stocks heightened protection under that law. The ESA listing year and status for those species are as follows:

- 1991 – sockeye salmon – endangered.
- 1992 – chinook salmon fall run – threatened.
- 1992 – chinook salmon spring/summer run – threatened.
- 1997 – steelhead – threatened.
- 1998 – bull trout – threatened.

The ESA listings caused the LSRCP managers to shift the focus of some hatchery fish production programs from mitigation for the effects of dams to a focus on the conservation and recovery of the listed fish. Compensation for dam-related impacts on salmon and steelhead remains the long-term goal of the LSRCP. Fishery co-managers (NPT, CTUIR, ODFW, NOAA Fisheries, and USFWS) have new interim goals however, and are seeking ways to increase abundance of protected fish in their native habitats and boost their populations through hatchery **supplementation** consistent with the already established LSRCP fish production goals. NOAA Fisheries authorized this reprogramming of LSRCP operations through ESA Section 10 Permits 847 and 1011, 1149 for the Lostine River, and 1128 for the Imnaha River. Those permits have recently expired, but NOAA Fisheries has new permit applications pending for both the Imnaha and Grande Ronde hatchery production programs. Since NOAA Fisheries has determined that the hatchery production programs proposed in the permit applications constitute beneficial actions for the threatened species (Ashe et al. 2000), co-managers continue to operate these programs in conformance with the permit applications.

The current hatchery production programs have eight components, and all of these components are required at the Lookingglass Hatchery. Originally, Lookingglass Hatchery was designed and built for production of two stocks of fish. The current program of hatchery production requires Lookingglass Hatchery to accommodate eight program components and five different fish stocks. The increase in program components and fish groups resulted in the need for substantial increases in space, water and equipment beyond what is currently available at the Lookingglass Hatchery. A review of Lookingglass Hatchery found it could not meet program goals even with substantial modifications (Montgomery Watson 1999a). Under the current programs, eggs are transported to Oxbow and Irrigon hatcheries, an action which has reduced fish production by 27% for the Imnaha River and 17% for the Grande Ronde (Grassel 2003). Co-managers and the NPCC recognized that without additional facilities and modifications to existing facilities to provide substantial increases in space, water and modern equipment, mitigation, conservation and recovery goals likely could not be met.

The NEOH Project Spring Chinook Master Plan (Master Plan) was prepared by the Nez Perce Tribe in 2000 to determine the programmatic and physical needs of the hatchery production program. The Master Plan depicts the program's shift in focus to conserve and recover Snake River spring/summer chinook in the Imnaha River and Grande Ronde River and their major tributaries (including the Wallowa River, the Lostine River and Catherine Creek). The Master Plan also explains how the existing hatchery facilities have become over-extended and unable to meet LSRCP mitigation goals or the conservation and recovery objectives for ESA-listed species. Further, it describes how the hatchery production program could be met if existing hatchery facilities were updated, modified, and augmented with certain new facilities.

The Master Plan hatchery program intends to:

- Prevent extinction and provide the means for recovery of protected Snake River anadromous fish, while factors limiting natural production are addressed (such as habitat restoration and improvements, etc.).

- Contribute to maintaining the naturally spawning populations of protected spring/summer chinook in currently-used habitat.

- Help reestablish populations in vacant and under-used habitat.

- Provide fish harvest opportunities when the mitigation, conservation and recovery objectives for the populations would not be jeopardized.

The Master Plan is incorporated by reference in its entirety in this EIS.

In October 2000, the NPCC accepted the Master Plan in its Fish and Wildlife Program and recommended that BPA authorize funds to proceed with implementation. BPA, pursuant to its responsibilities under the Northwest Power Act and the NOAA Fisheries 2000 Biological Opinion on the Federal Columbia River Power System, met with Northeast Oregon fishery co-managers to study the feasibility and to develop a proposed action based on the Master Plan.

The Grande Ronde - Imnaha Spring Chinook Hatchery Project (Proposed Action), the subject of this EIS, was developed from the Master Plan and proposes actions to modify and modernize existing hatchery facilities and to build auxiliary hatchery facilities in Northeast Oregon to mitigate and aid in the mitigation, conservation and recovery of threatened Snake River spring/summer chinook native to the Grande Ronde and Imnaha river basins.

1.5 Public Scoping and Key Issues

Public involvement is a required element of environmental analyses undertaken by the federal government pursuant to the National Environmental Policy Act (**NEPA**). **Scoping** refers to a process where interested and affected parties are invited to identify environmental issues or concerns they think should be considered in the analysis of a proposed action. On November 23, 2001 BPA published a Notice of Intent to prepare an EIS and a Notice of Floodplain and Wetland Involvement in the Federal Register. Those notices introduced the Proposed Action and provided contact information. The Notice of Intent announced when and where open public scoping meetings would be held for the Proposed Action.

Open scoping meetings were held in Imnaha, Oregon (January 15, 2002); Lostine, Oregon (January 16, 2002); and La Grande, Oregon (January 17, 2002). Several follow-up meetings with particular groups were also conducted upon special request. Interested and affected parties included local residents, local business owners, regional special interest groups involved with fish conservation, and government agencies with regulatory responsibilities related to the environment. The following environmental issues were raised.

Biological Environment:

- Effects to ESA-protected fish species, and other aquatic species, due to facility construction, modification, or operation.
- Effects to wildlife, particularly ESA-protected species and big game (elk and deer), where cover or breeding habitat, migration routes, or traditional access to water may be affected by new facilities (Lostine River Hatchery and Imnaha Final Rearing Facility/Marks Ranch sites).
- Effects to plants, particularly ESA-protected species and riparian plant communities, due to ground disturbance, spread of weeds, landscaping, or changes to ground water or surface water availability.

Physical Environment:

- Changes by season to instream water quantity and ground water table at each site due to use of new diversions of river water and wells to serve the hatchery facilities.
- Changes to water quality downstream from each site due to construction and operation of new facilities.

Social and Economic Environment:

- Effects of the Proposed Action on the Imnaha and Lostine Wild and Scenic River status and on the Hells Canyon National Recreation Area (**HCNRA**) and, in particular, whether new facilities may unreasonably diminish remarkable values of these specially designated areas.

- Aesthetics and noise associated with proposed non-residential facilities in the Lostine/Granger Road neighborhood and at the Imnaha sites.

- Effects of construction and operation of the new facilities on health, safety and security of nearby residents and road-users.

- Costs versus benefits of the facilities overall and in the context of other means to mitigate and recover spring/summer chinook populations in Northeast Oregon and throughout their range

1.6 Issues Beyond the Scope of this EIS

This EIS considers alternatives for facilities to better implement existing pre-approved programs of hatchery fish production. This EIS will not consider or evaluate changes to pre-established programmatic goals, costs versus benefits of the proposed facilities compared to other mitigation and recovery actions, direction, production levels, monitoring and evaluation requirements, genetics, ecological interactions, or operational means of achieving programmatic goals. That is, consideration of issues concerning programmatic elements is outside the scope of this EIS. While this EIS addresses **cumulative effects** as required by NEPA regulations, issues associated with spring/summer chinook recovery programs, hatcheries in general, and funding priorities of different recovery methods are more appropriately addressed in other processes either 1) during reconsideration of programmatic plans such as those tied to the LSRCP, the Northwest Power and Conservation Council's Fish and Wildlife Program, and similar broad-scale efforts, or 2) when a government agency proposes to adopt a policy or plan addressing those broader, general issues. The timing of these efforts will be covered in BPA's Fish and Wildlife Implementation Plan.

For more detailed information on hatchery programmatic, production and genetic issues, see the Master Plan and/or the Hatchery and Genetic Management Plans (**HGMP**) for the Grande Ronde Basin Spring/Summer Chinook Program (ODFW 2002) and the Lower Snake River Compensation Plan Imnaha Spring/Summer Chinook Program. These documents are incorporated by reference into this EIS and are available upon request from BPA.

1.7 Relationship to Other Fish Projects and Programs in the Vicinity

Table 1-1 (adapted from the Master Plan) identifies other fish-related projects and programs in the project vicinity, and their relationship to the proposed project. Many of these other projects and programs are managed by various entities that are also partners on this project. Table 1-2 (also adapted from the Master Plan), and the Master Plan document, should be consulted for more information on programmatic and operational aspects of spring/summer chinook management in Northeast Oregon. The Master Plan is currently available on request to BPA, or at http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/Summaries/Granderonde - then select the link to the Master Plan.

Table 1-1. Other Projects and Programs in the Vicinity

Program/Plan and (Number)	Manager	Type	Relationship to Proposed Project
LSRCP (Lower Snake River Compensation Plan)	ODFW NPT USFWS	O&M and M&E of LSRCP program at Lookingglass Hatchery; Co-operation of the Imnaha Satellite Facility and M&E of the LSRCP program	The LSRCP program funds operation and maintenance of Lookingglass Hatchery and the Imnaha River Satellite Facility. The USFWS administers and manages program funding. Fish production at Lookingglass Hatchery refocuses on conservation and recovery of fish while the original long-term goal remains to compensate for Snake River dam-related losses. The facilities proposed would alleviate the burden at Lookingglass Hatchery and make full production of the conservation programs possible. Monitoring and evaluation of the LSRCP for the Imnaha and Grande Ronde is also funded through the LSRCP.
Grande Ronde Basin Captive **Broodstock** (BPA 199801001)	ODFW	Captive Broodstock O&M and M&E at Lookingglass and Bonneville Hatcheries	BPA project 199801001 funds rearing of captive brood adults in freshwater for the Grande Ronde program. The proposed facilities would provide the additional incubation and rearing space (with sufficient segregation capability for monitoring and evaluation and fish health requirements) needed to rear progeny of the captive broodstock.
Captive Broodstock Artificial Propagation (BPA 199801006)	NPT	M&E of Captive Broodstock	BPA project 9801006 funds monitoring and evaluation activities of captive broodstock production at Bonneville Hatchery. The proposed facilities will provide incubation and rearing space needed to rear progeny of the captive broodstock.
Grande Ronde Supplementation - Lostine River (BPA 199800702)	NPT	O&M/M&E satellite facilities	BPA project 199800702 funds operation and maintenance and monitoring and evaluation of satellite facilities on the Lostine River for adult collection and juvenile **acclimation** and release of captive and conventionally produced spring chinook salmon. These facilities will act as satellites to the proposed facilities.
Grande Ronde Supplementation - Upper Grande Ronde and Catherine Creek (BPA 199800703)	CTUIR	O&M/M&E satellite facilities	BPA project 199800703 funds operation and maintenance and monitoring and evaluation of satellite facilities on the Upper Grande Ronde River and Catherine Creek for adult collection and juvenile acclimation and release of captive and conventionally produced spring chinook salmon. The proposed facilities will alleviate the burden at Lookingglass Hatchery allowing full production of these stocks.
Preserve Listed Salmonid Stock Gametes (BPA 199803800)	NPT	Cryopreservation of ESA-listed male chinook gametes	BPA project 199803800 funds the collection, cryopreservation, and storage of male chinook semen collected from Imnaha and Grande Ronde fish both on the spawning grounds and in the hatchery. Project 199803800 would continue to provide these activities for the program at the proposed facilities.
NEOH Master Plan (BPA 198805301)	NPT	Planning Capital Construction	BPA project 198805301 funds planning and activities associated with development of new hatchery facilities in the Imnaha and Grande Ronde subbasins of Northeast Oregon. Development of the master plan document occurred through this project. Project 198805301 also funds the environmental assessment and design of the proposed facilities, as well as capital construction costs.

Program/Plan and (Number)	Manager	Type	Relationship to Proposed Project
Northeast Oregon Hatcheries Planning and Implementation (BPA 198805305)	ODFW	Planning O&M/M&E Lookingglass Hatchery	BPA project 198805305 funds ODFW participation in the master planning process. Project 198805305 also funds operation of Lookingglass Hatchery for captive and conventional chinook salmon produced in the Grande Ronde program. The proposed facilities will alleviate the burden at Lookingglass Hatchery and make it possible for production goals to be met.
Manchester Captive Broodstock (BPA 199606700)	NMFS	Captive broodstock O&M at Manchester facility	BPA project 199606700 funds rearing of captive brood adults in saltwater for the Grande Ronde program. The proposed facilities will provide the additional incubation and rearing space (with sufficient segregation capability for monitoring and evaluation and fish health requirements) needed to rear progeny of the captive broodstock.
Fish Passage Center's Smolt Monitoring Project (BPA 199403300)	Fish Passage Center	Monitoring of juvenile salmon migration	Juvenile and natural salmon produced at the proposed facilities will provide information on in-river migration timing and survival (see Master Plan).
Early Life History of Spring Chinook (BPA 199202604)	ODFW	M&E of juvenile outmigration in the Grande Ronde	BPA project 199202604 is funded to establish baseline life history information on Grande Ronde River spring chinook salmon. Juvenile trapping data from project 199202604 would be used to evaluate the success of the conservation program and production from the proposed facilities.
Imnaha River Smolt Monitoring Project (BPA 198712703)	NPT	M&E of juvenile outmigration in the Imnaha	BPA project 198712703 is funded to monitor emigration survival, timing, and life history characteristics, and will intensively monitor emigration of hatchery and natural spring chinook salmon from the Imnaha River system. Project 198712703 would also be used to evaluate the success of the conservation program and production from the proposed facilities.
Genetic Monitoring and Evaluation of Snake River Salmon and Steelhead (BPA 198909600)	NMFS	Genetic M&E	BPA project 198909600 funds the collection, analysis and establishes a database of genetic data from salmon and steelhead stocks in the Snake River. Juvenile hatchery and natural salmon produced as a result of the proposed facilities would provide information for this database.
Grande Ronde Model Watershed (BPA 199402700)	Grande Ronde Model Watershed	Habitat	BPA project 199402700 is responsible for coordinating water quality monitoring and habitat enhancement projects in the Grande Ronde and Imnaha subbasins. These efforts are expected to assist recovery actions described in the master plan. In addition, juveniles produced by proposed facilities will provide information on habitat use in treatment areas.
Grande Ronde Habitat Enhancement (BPA 199608300)	CTUIR	Habitat	BPA project 199608300 is funded to improve habitat in the Grande Ronde subbasin. These efforts are focused in the upper Grande Ronde watersheds of Union County. Improvement in habitat will increase likelihood of program success.
Wallowa Basin Project Planning (BPA 9403900) and Wallowa/Nez Perce Salmon Habitat (BPA 199702500)	NPT	Habitat	BPA projects 199403900 and 199702500 are funded to improve habitat in the Imnaha and Grande Ronde subbasins. These efforts are focused in Wallowa County. Improvement in habitat will increase likelihood of program success.
Grande Ronde Habitat Enhancement (BPA 198402500)	ODFW	Habitat	BPA project 198402500 is funded to improve habitat in the Grande Ronde subbasin. These efforts are focused in Union County. Improvement in habitat will increase likelihood of program success.

Source (adapted from): Ashe et al. 2000.

Table 1-2. Relationship to Relevant Laws, Plans, Treaties and other Guidance

Topic	Relevant Aspects	Relationship to Proposed Project
Treaty of 1855	The NPT reserved "The exclusive right of taking fish in all the streams where running through or bordering said reservation ..and.. taking fish at all usual and accustomed places …" in the Treaty of 1855.	Restoration of salmon runs resulting from fish production in the proposed facilities would assist in meeting obligations to the NPT made by the United States.
ESA (Endangered Species Act) of 1973	Snake River spring/summer and fall chinook were listed as threatened in May 1992. On August 18, 1994, they were reclassified as endangered species (Federal Register, August 1994). When the emergency rule expired in 1995, the listed status reverted to threatened. Steelhead in the Imnaha and Grande Ronde Rivers were listed as threatened under the ESA in 1996 (Federal Register, August 9, 1996).Bull trout in the Imnaha and Grande Ronde Rivers were listed as threatened under the ESA on June 10, 1998 (Federal Register volume 63 No. 111:31647-31674).**Taking** of Imnaha and Lostine (Grande Ronde) River chinook, steelhead and bull trout is regulated by the Section 7 (federal) and Section 10 (non-federal) process of the ESA (P.L. 93-205).	Activities associated with the Imnaha conservation program have been authorized by ESA Section 10 Permit 847 and 1134. A description of the program is in the Section 10 Permit application, which was submitted to NMFS January 23, 1998. Activities associated with the Grande Ronde Endemic Spring Chinook Supplementation Program (**GRESP**) have been authorized by ESA Section 10 Permits 973, 1011, 1134 and Modification 1 to Permit 1011. Permit applications describing the Grande Ronde program were submitted by ODFW March 31, 1998 (ODFW 1998a) and the Bureau of Indian Affairs (**BIA**) April 13, 1998 (BIA 1998). Section 7 consultations regarding impacts to bull trout and steelhead from these programs have also been completed (NMFS 1998; NMFS 1999; USFWS 1998).
Snake River Proposed Recovery Plan (NMFS 1995)	This plan was developed by NMFS in 1995 in response to the 1992 listing of Snake River spring, summer and fall chinook salmon.	Fish production in the proposed facilities is consistent with recommendations in the Proposed Recovery Plan.
Lower Snake River Fish and Wildlife Compensation Plan (USACE 1975)	Federal authorized program to mitigate for losses caused by four lower Snake River dams. Mitigation goals for spring chinook salmon are 3,210 adults to the Imnaha River and 5,820 adults to the Grande Ronde River.	Fish production in the proposed facilities would be authorized under the LSRCP program. Proposed facilities could eventually be used to achieve program goals.
U.S. v. Oregon	Treaty fishing rights litigation involving Columbia Basin salmon and steelhead harvest and enhancement goals.	Proposed facilities would assist the parties in meeting obligations and agreements under the lawsuit.

Topic	Relevant Aspects	Relationship to Proposed Project
NMFS Hatchery Genetic Management Plan (NMFS 2000b)	A template developed by NMFS for anadromous salmonid hatchery programs in Washington, Oregon and Idaho. The template will be used to assess artificial production impacts on listed anadromous fish and provide a source of comprehensive information for regional production and management planning.	Information required in the HGMP template is incorporated into the Master Plan. Completion of an HGMP will be used under the 4(d) rule to allow direct take of an ESA-listed species for hatchery production.
Scientific Review Team Review of Artificial Production (Brannon et al. 1999)	Independent scientific review of the Columbia Basin artificial production program, analysis of effectiveness in meeting mitigation responsibilities and enhancing salmonid production, and evaluation of supplementation of natural runs. Describes guidelines that provide the biological basis for NPPC policy on artificial production.	Proposed facilities are consistent with guidelines and recommendations developed by the SRT for artificial production facilities.
Artificial Production Review (NPPC 1999)	NPPC report to Congress on the use of artificial production in the Columbia Basin that includes recommendations for policy reform and strategies for implementing new policies.	The proposed facilities are consistent with APR recommendations and policies. See Master Plan.
Wy-kan-ush-mi wa-kish-wit: *Spirit of the Salmon* Tribal Recovery Plan (NPT et al. 1995).	Plan developed by the four Columbia River Treaty Tribes to restore fish runs using gravel-to-gravel management.	The Tribal Recovery Plan recommends production in the proposed facilities.
Wallowa County-NPT Salmon Recovery Plan (Wallowa County and NPT 1993, revised 1999)	A cooperative plan between Wallowa County and the NPT to improve watershed and habitat conditions in Wallowa County.	Habitat improvements accomplished through this plan are intended to improve productivity and survival of naturally produced salmon and fish reared in proposed facilities.
Imnaha River Subbasin Plan (NPT et al. 1990)	Plan developed by co-managers to address the NPPC goal of doubling salmon and steelhead runs. Adult return goals for spring chinook were 5,770; 3,820 for natural spawning, 1,240 for hatchery production, and 700 for harvest.	Proposed facilities could eventually be used to achieve plan goals.
Grande Ronde River Subbasin Plan (ODFW et al. 1990)	Plan developed by co-managers to address the NPPC goal of doubling salmon and steelhead runs. Spring chinook salmon adult return goals were 16,400; 10,140 for natural spawning, 2,260 for hatchery production, and 4,000 for harvest.	Proposed facilities could eventually be used to achieve plan goals.
Wild and Scenic Rivers Act	The Imnaha and portions of the Lostine and Grande Ronde Rivers are protected under the Wild and Scenic Rivers Act that requires a river to be free flowing and to possess one or more "outstandingly remarkable values."	Populations and habitat of threatened and endangered fishes are considered an outstandingly remarkable value. Fish production in proposed facilities is consistent with protection and enhancement of these resources.

Topic	Relevant Aspects	Relationship to Proposed Project
Pacific Salmon Treaty	A treaty between the U.S. and Canada governing the joint management of Pacific salmon including harvest, rehabilitation, and enhancement.	Fish production from the proposed facilities could be harvested in marine waters.
Magnuson-Stevens Fisheries Conservation and Management Act	Congressional act that ensured that state fishing regulations off the coasts of Oregon, Washington and California conformed to the federal Fisheries Management Council regulations, which are constrained by the Pacific Salmon Treaty, ESA, and orders of federal courts, such as *U.S. v. OR*, *U.S. v. WA* and treaty Indian fishing rights. The Act also protects the ocean and fresh water habitat of commercial fisheries regulated by the act, the chinook and coho fisheries	The Act affects the potential harvest of chinook produced from the proposed facilities as bycatch in the ocean harvest. The facilities would be designed and located to not adversely affect essential fish habitat for chinook and coho.
Oregon **Wild Fish** Management Policy of 1987	Developed by ODFW in response to the creation of Oregon's ESA in 1987, the primary focus of the WFMP is to preserve the genetic resources of managed fish populations. This policy is currently undergoing revisions and will most likely be called the Native Fish Conservation Policy.	Management of fish production from proposed facilities employs an adult sliding scale developed by NPT, CTUIR, and ODFW as a genetic risk containment tool.
Oregon Legislature House Bill 3609	Passed in 1999, HB 3609 directs the ODFW to work with the Columbia Basin Treaty Tribes to develop natural production plans for the Imnaha and Grande Ronde River subbasins.	Proposed facilities would allow implementation of plans directed by HB 3609.
Return to the River (Independent Scientific Group 1996)	Report to the NPPC in 1994 by the Independent Scientific Group to provide a conceptual and scientific foundation for public policy for decision making bodies.	This report does not recommend policies for recovery and restoration, nor does it recommend specific measures or strategies or deal with institutional structures.
Upstream Report (National Research Council 1996)	Developed by the National Research Council in 1995 to identify factors that have led to decline and extinction of salmon stocks and recommend strategies for prevention of further decline. The report emphasizes the need to protect **genetic diversity** of salmon and restore spawning and rearing habitat.	The short-term goal of fish production from the proposed facilities is protecting genetic diversity by preventing extinction. For more information on genetic risk containment see the Master Plan, Chapter 4. For more information on habitat improvements and protection see the Master Plan, Chapter 6.

Topic	Relevant Aspects	Relationship to Proposed Project
Pacific Northwest Power Planning and Conservation Act of 1980	This Act established the Northwest Power and Conservation Council for the purpose of mitigating for the development and operation of hydroelectric projects within the basin. The Council developed and administers the Columbia River Basin Fish and Wildlife Program to protect, mitigate, and enhance fish and wildlife in the Columbia River basin.	Proposed facilities would be funded by BPA under the Fish and Wildlife Program.
Other Supplementation projects including Nez Perce Tribal Hatchery; Johnson Creek Artificial Propagation Enhancement, Yakama Fisheries Project Supplementation Program	Supplementation programs funded by BPA under the Fish and Wildlife Program.	Proposed facilities are consistent with approach taken elsewhere in the basin to use supplementation to enhance and restore declining salmon runs. Evaluation and research will be coordinated.
USACE's Lower Snake River Feasibility Study	The Corps has prepared an EIS on options for improving juvenile salmon migration in the lower Snake River. Breaching the four lower Snake dams was one of the options studied. The EIS provides information for decision-makers who must ultimately decide on what measures are needed to recover Snake River salmon and steelhead runs. The Corps issued a decision not to breach the dams in 2002.	Fish production from the proposed facilities is intended to prevent extinction of these at-risk populations until a decision is made and limiting factors can be corrected. These facilities can also be used to restore runs once the smolt-to-adult survival rate is improved.
Interior Columbia Basin Ecosystem Management Program (**ICBEMP**)	ICBEMP was a massive federal land-use plan that covers 64 million acres in Oregon, Idaho, Washington, and Montana. Although not implemented, its goal was to restore this area to a condition that will better support fish and wildlife.	Fish production from the proposed facilities is intended to prevent extinction of these at-risk populations until limiting factors can be corrected. These facilities can also be used to recover runs once the smolt-to-adult survival rate is improved.
Federal Caucus Basinwide Salmon Recovery Strategy (Federal Caucus, December 1999; and December 2000)	Nine federal agencies formed a *Federal Caucus* to examine opportunities the region has in habitat, harvest, hatcheries and hydropower for recovering listed salmon, steelhead and resident fish. The All-H Paper is a conceptual recovery plan to guide future federal actions.	Fish production from the proposed facilities is intended to prevent extinction of these at-risk populations until a decision is made and limiting factors can be corrected. These facilities can also be used to recover runs once the smolt-to-adult survival rate is improved.
Biological Opinion of NOAA Fisheries, 2000.	The Biological Opinion requires BPA, the USACE and the Bureau of Reclamation to manage the Federal Columbia River Power System to address the effects hydro power has had, and continues to have, on species specifically protected by the ESA. Primarily, the affected species include salmon and steelhead.	Fish production from the proposed facilities is intended to prevent extinction of at-risk chinnok populations until limiting factors can be corrected. These facilities can also be used to recover runs once the smolt-to-adult survival rate is improved.

Source (adapted from): Ashe et al. 2000.