

## Chapter 2: Revisions to Draft EIS

Chapter 2 includes excerpts from the Draft EIS that have been edited to correct minor errors or oversights, incorporate design refinements, and provide updates regarding the EIS process, consultation, and public involvement activities. Many of the changes reflect the decision to not construct the Imnaha Final Rearing Facility and to accomplish the production program at the four other sites. Changes are identified by page number with added text shown by underline and deleted text shown by ~~strike through~~. Changes are presented in the context of the full paragraph in which they occur in the Draft EIS.

### Executive Summary

On page ES-2 (second paragraph):

The Proposed Action consists of five sites and facilities described in Section 1.6 2.4 of the Final EIS. Figure 1-1 ES-1 of the Final EIS provides an overview of the Proposed Action's area and the geographic relationship of sites and facilities.

- Lookingglass Hatchery – Modifications to this existing facility are proposed to better accommodate Catherine Creek and Upper Grande Ronde (includes Lookingglass Creek) components of the production program and to transfer Lostine River other stock responsibilities to a facility facilities on the natal streams. Lookingglass Hatchery is also proposed to accommodate final incubation, early rearing, and final rearing for about half of the Imnaha River stock.
- Lostine Adult Collection Facility – A new facility is proposed for collecting adult spring/summer chinook for spawning at the Lostine River Hatchery during higher flows.
- Lostine River Hatchery – A new facility is proposed to accommodate the Lostine River component of the chinook production program by incubating and rearing chinook near their natal waters. The new facility would also accommodate incubation and early to final stages of rearing of Imnaha stock.
- ~~Imnaha Final Rearing Facility – A new facility is proposed to provide final rearing for year-old chinook in natal waters before final acclimation and release at the Imnaha Satellite Facility.~~
- Acrow Panel Bridge Site – The proposal is to remove the existing Acrow panel bridge across the Imnaha River for use at the Lostine Adult Collection Facility and to rehabilitate areas disturbed by bridge removal.
- Imnaha Satellite Facility – Modifications to the existing adult collection and acclimation facility are proposed to allow more efficient collection of broodstock over a greater range of spring flows and to allow for improved short-term adult holding, spawning, and incubation before prior to transport for spawning at Lostine River Hatchery. Improvements to the existing juvenile acclimation pond are also proposed to allow for final rearing at preferred densities prior to release.

On page ES-4:

Replace Figure ES-1 with Final EIS, Figure 1-1.

On page ES-5:

Replace Table ES-1 with Final EIS, Table 1-4.

## 2.1 Revisions to Chapter 1 of Draft EIS

On page 1-2:

Replace Section 1.3: Decisions to be Made and Responsible Officials with Final EIS, Section 1.3: Decisions to be Made and Responsible Officials.

On page 1-4:

Replace Figure 1-1 with Final EIS, Figure 1-1.

On page 1-6:

Supplement Section 1.5: Public Scoping and Key Issues with Final EIS, Section 1.4: Summary of Public Involvement, Consultation, and Coordination.

## 2.2 Revisions to Chapter 2 of Draft EIS

On pages 2-1 – 2-3:

### 2.1 Proposed Action

The Proposed Action is to modify and modernize existing hatchery facilities and construct ~~three~~ auxiliary hatchery facilities to aid native spring/summer chinook conservation and recovery in Northeast Oregon (see map, Figure ~~1-1~~ ~~2-4~~).

The five sites and facilities involved are:

- Lookingglass Hatchery – modifications are proposed to better accommodate the Catherine Creek and Upper Grande Ronde (includes Lookingglass Creek) components of the hatchery fish production program and transfer Lostine River ~~other~~ stock responsibilities to a facility facilities on the natal streams. Lookingglass Hatchery is also proposed to accommodate final incubation, early rearing, and final rearing for half of the Imnaha River stock. Lookingglass Hatchery was designed and built for production of two stocks of fish. The current program of hatchery production requires that Lookingglass Hatchery accommodate eight program components and five different fish stocks with lower density rearing objectives.
- Lostine Adult Collection Facility – a new facility is proposed for collecting adult spring/summer chinook during higher flows for spawning at the Lostine River Hatchery. Currently, fisheries managers use a collapsible panel weir ~~portable picket weir~~ on the Lostine River near its confluence with the Wallowa River to collect adult spring/summer chinook for hatchery spawning. That existing weir cannot be operated during the higher spring flows typical during chinook migration.
- Lostine River Hatchery – a new facility is proposed to accommodate the Lostine component of the ~~hatchery~~ chinook production program by incubating and rearing chinook near their natal waters. The new facility would also accommodate incubation and early to final stages of rearing of Imnaha stock.

- Imnaha Final Rearing Facility— a new facility is proposed to provide final (fall to early spring) rearing for year old chinook in their natal waters prior to final acclimation and release at the Imnaha Satellite Facility.
- Acrow Panel Bridge Site – The proposal is to remove the existing Acrow panel bridge across the Imnaha River for use at the Lostine Adult Collection Facility and to rehabilitate areas disturbed by bridge removal.
- Imnaha Satellite Facility – modifications are proposed to the existing adult collection and acclimation facility to allow more efficient collection of broodstock over a greater range of spring flows and to allow for improved short-term adult holding, spawning, and incubation prior to transport for spawning at Lostine River Hatchery. Improvements to the existing juvenile acclimation pond are also proposed to allow for final rearing at preferred densities prior to release.

As recommended in the Master Plan, facilities would be designed and constructed to meet the low density rearing, volitional release, and other criteria of Natural Rearing and Enhancement System (**NATURES**) to the extent feasible (Ashe et al. 2000). Instream structures would meet applicable NOAA Fisheries and USFWS design requirements. Construction would be staged to accommodate existing project operations and reduce impacts on fish production at each facility.

Instream work would be performed in compliance with applicable regulations and permits. Any instream work would occur behind temporary **cofferdams** or other water diversions appropriately placed to route water around work areas. Portable pumps would be used to help keep work areas dry. Pump discharge would be routed through settling basins prior to discharge back into any rivers. Instream work would only occur during ODFW’s **instream work window**, normally July 1 to July 31 for the Lostine River and between July 15 to and August 15 for the Lostine and Imnaha Rivers, or as otherwise specified by the appropriate regulatory agency(s). No instream work would occur in Lookingglass Creek as part of this Proposed Action.

Facility design and construction would meet all other environmental requirements and would incorporate best management practices such as erosion control, waste management, dust control, weed management, fire prevention, and work hour and noise considerations. The Proposed Action would comply with the federal Clean Water Act’s (**CWA**) National Pollutant Discharge Elimination System (**NPDES**) requirements and would incorporate sensitive site design measures such as retaining riparian vegetation, landscaping with native plants, erecting buildings reflective of local character, and shielding facility lighting. See Table 4-1 for environmental permits and approvals required at each site.

It is anticipated that spring/summer chinook would be collected yearly for about 20 to 25 years, or until adult replacement rates for the naturally spawned population suggest that the population is naturally sustainable (Ashe et al. 2000). The expected duration of the hatchery program would be dependent on changes outside hatchery operations (i.e., the hatchery program may operate over a longer period of time if other factors limiting population recovery are not mitigated or otherwise controlled, or the hatchery program may operate over a shorter period of time if other limiting factors are reduced). The decision to phase out or remove hatchery facilities would be made at the program level and in the context of other chinook recovery efforts.

On pages 2-3 – 2-11:

**2.1.1 Grande Ronde Facilities**

Replace entire Grande Ronde Facilities section (including Figures 2-2 – 2-5) with Final EIS, Section 1.6.1: Grande Ronde Facilities.

On pages 2-11 – 2-17:

**2.1.2 Imnaha Facilities**

Replace entire Imnaha Facilities section (including Figures 2-6 – 2-8) with Final EIS, Section 1.6.2: Imnaha Facilities.

On pages 2-17 – 2-18:

Replace Section 2.3: Alternatives Eliminated from Detailed Study with Final EIS, Section 1.8: Alternatives Eliminated from Detailed Study.

On page 2-18:

Replace Section 2.4: Comparison of Alternatives with Final EIS, Section 1.9: Comparison of Alternatives and Summary of Potential Impacts.

On page 2-20:

Replace Table 2-2: Comparison of Proposed Action and No Action Alternative to the Stated Purposes of Taking Action with Final EIS, Table 1-2: Comparison of Proposed Action and No Action Alternative to the Stated Purposes of Taking Action.

On page 2-21:

Replace Table 2-3: Comparison of Facilities Associated with Proposed Action and No Action Alternative with Final EIS, Table 1-3: Comparison of Facilities Associated with Proposed Action and No Action Alternative.

On page 2-22 – 2-26:

Replace Table 2-4 Summary of Environmental Consequences of Alternatives with Final EIS, Table 1-4: Summary of Environmental Consequences of Alternatives.

## 2.3 Revisions to Chapter 3 of Draft EIS

On page 3-2 (second paragraph):

Both the Grande Ronde and Imnaha subbasins continue to support fisheries that were an important part of the regional economy and regional tribal cultures (James 1984; Wallowa County and NPT 1999; Ashe et al. 2000). The ~~Draft Biological Assessment prepared for the project and incorporated in its entirety by reference (in process FishPro/HDR 2004a)~~ presents more detailed information on fish species in the subbasins, including historic and present distribution and abundance. The sections that follow present an overview of existing conditions in the subbasins and analyze potential project impacts.

On page 3-12:

**~~Imnaha Final Rearing Facility Acrow Panel Bridge Site and Imnaha Satellite Facility~~** — Currently, most spring/summer chinook within the Imnaha subbasin spawn in the mainstem Imnaha from the Blue Hole to Crazyman Creek. These sites are upstream and downstream, respectively, of the existing Imnaha Satellite Facility. Some individuals have been observed spawning as far upstream as the lower reaches of the South Fork and as far downstream as Freezeout Creek (Witty 1964-1990).

On pages 3-15 – 3-16:

**~~Lookingglass Hatchery~~** — Currently, Lookingglass Hatchery (shown in Figures 2-2 and 3.9-1) rears stock from Grande Ronde River, Catherine Creek (includes Lookingglass Creek), the Lostine River and the Imnaha River. Under the proposed program, production would remain the same for Catherine Creek and Grande Ronde stocks, but the Lostine stock would no longer be transferred to Lookingglass for spawning. About one-half ~~Some portion~~ of the Imnaha stock ~~may continue to~~ would be reared at Lookingglass under the “spread the risk” approach to offset a facility-wide disease or system failure, should it occur, ~~but the majority would be reared elsewhere.~~

With the implementation of the Proposed Action, and transfer of Lostine River stocks to the Lostine River Hatchery, the number of smolts reared at Lookingglass Hatchery would decrease, providing more rearing space and better rearing densities, ~~and ability to meet NATURES criteria.~~ Overall impacts of the proposed improvements at Lookingglass Hatchery are beneficial to spring/summer chinook with no impact to low impact to water quality, quantity and other species.

### *Site Disturbances*

Modifications to existing facilities at Lookingglass Hatchery (hatchery building improvements and construction, and upgrades to power supply, and new raceways, as previously described) would involve additions to existing facilities or internal changes to existing structures, including improvements inside the hatchery building, one new stand-by generator, replacing one existing stand-by generator, adding bird netting to existing raceways, and upgrading internal electrical supplies and equipment. ~~would involve upland work that would take place where ground has previously been disturbed within the existing site boundary. Construction of three raceways against the toe of a banked hill east of the existing raceways would entail excavation, which would result in the removal of some herbaceous vegetation. The removed soil would be used elsewhere on site.~~

~~These modifications would disturb the ground and increase the amount of impervious surface area at the site. Silt erosion control devices would be used during construction of the bay pole building. Construction activities would occur away from the creek bank and any increase in sediment due to upland~~

~~site disturbance would be minimal and temporary and is not expected to exceed the creek's sediment load capacity.~~

~~An additional power line would be installed on existing poles along the access road adjacent to the creek, and may result in temporary disturbance to the normal activity of salmonid and resident fish individuals within the creek, both adjacent to and downstream from the site. This activity is not likely to impact population viability.~~

~~Improvements Upland construction~~ at the facility would be scheduled around facility operations to minimize hatchery fish disturbance.

On pages 3-16 (seventh full paragraph):

Broodstock Collection and Maintenance, Adult Holding and Spawning, Incubation and Rearing, Fish Health Management and Methods and Magnitude of Release: The Lookingglass Hatchery is an existing facility that has been in operation since 1982. Methods of broodstock collection, adult holding and spawning, incubation and rearing practices, and release methods are described in the HGMP for Grande Ronde River Spring/summer Chinook Program (ODFW 2002). Modifications to the existing facility would not result in additional impacts to spring/summer chinook populations. The modifications would generally benefit the target species by allowing the implementation of practices that are reflective of NATURES criteria. (NATURES criteria were developed by a design team of federal, state, tribal, and non-governmental agencies and organizations. The system incorporates hatchery reform recommendations consistent with NOAA's Conceptual Framework for conservation hatchery strategies for Pacific Salmonids).

On page 3-17 (first full paragraph):

As the design process proceeds, the hatchery managers (tribal and agency project sponsors) would continue to monitor other facilities, which have implemented NATURES criteria and take advantage of the experience and findings at these facilities. The facility would be designed to meet the intent of NATURES and would meet the criteria when feasible as determined by hatchery managers.

**Lostine Adult Collection Facility** — Modifications to existing facilities and construction of new structures at the Lostine Adult Collection Facility (Figures 2-3 and 3.9-2) would involve mostly instream and riverbank work that would have physical impacts related to channel alterations to improve the fish ladder passage system. About 2 acres would be cleared and graded on the west bank for temporary construction staging and permanent fish ladder access.

#### *Site Disturbances*

Site disturbances would result in the removal or disturbance of about ~~300~~ 360 feet of riparian vegetation on the west bank of the Lostine Adult Collection Facility site and placement of fill and riprap to construct a levee. Existing side channels that occur west of the proposed levee site would be routed under the levee (with french drains) for continued discharge into the Lostine River. A temporary access road to the levee site may also be required.

On page 3-17 (last paragraph):

*Channel Alterations*

Instream work to remove portions of an existing fish ladder; install a hydraulic velocity barrier and fish ladder, trap and hopper; place large rocks for channel protection; and replace the existing bridge and abutments would result in alterations to the existing channel. All instream work would take place in one construction season during ODFW's instream work window of ~~July 1 – July 31~~ July 15 – August 15.

On page 3-20:

**Lostine River Hatchery** — The proposed Lostine River Hatchery (Figures 2-4 and 3.9-3) would ~~be a multiple-function facility designed to hold and spawn Lostine River spring/summer chinook, and to incubate eggs and rear juveniles through final rearing and release into the wild. Along with the proposed adult collection facility downstream, this hatchery would have all the elements needed to successfully support the Lostine River spring/summer chinook component of the hatchery fish production program. The Lostine River Hatchery would be designed to hold not only the Lostine River broodstock, but also the Imnaha River broodstock for spawning and incubation to eyed egg stage. The Lostine River Hatchery would also hold one-half (245,000) of the Imnaha River spring/summer chinook program from incubation to final rearing. The remainder of the Imnaha River stock would be reared at Lookingglass Hatchery. The Lostine River Hatchery would include housing for permanent staff. fully support the Lostine River spring/summer chinook program by holding 250,000 Lostine River smolts from spawning through final rearing and release. Additionally, the hatchery would be designed to hold 100 percent of the Imnaha River spring/summer chinook program (490,000) from incubation to early stages of final rearing in September. For the initial years of the program, a portion of the Imnaha stock may be reared at Lookingglass. The facility would be designed so that the Imnaha stock would be reared at the Lostine River Hatchery once the facility has been successfully operational. See Table 3.2-7 for timing details for the proposed program. One benefit of the use of a hatchery on the Lostine is decreased hauling time for fish transported from Lookingglass. Under the current program, fish are transported four times with an estimated transport time of 14 hours. The fish are moved at critical life stages such as adults and as unfertilized eggs where higher rates of mortality have been observed. With the proposed program and the new facilities, the fish would be transported three times with an estimated transport time of five hours. The adults would be trapped, held, and spawned at the Imnaha Satellite Facility. Incubation to eyed egg stage prior to transport to the Lostine Hatchery would also occur. The length of transport time is significantly reduced since the fish are not moved outside Wallowa County.~~

On page 3-20: Edit Table 3.2-7, as shown in Table 2-1:

**Table 2-1. Lostine River Hatchery Conventional Broodstock Program for Lostine and Imnaha River Stocks (Operated Year-Round).**

Lostine Stock		Imnaha Stock	
Life Stage	Time Period	Life Stage	Time Period
Adults <del>Fish</del> collected at Lostine Adult Collection Facility	High flow collection from <del>May</del> <u>April</u> – August 1 Low flow collection <del>15 from</del> <u>July 15</u> – October 1	Fish collected <u>and held and spawned</u> at Imnaha Satellite Facility	June - September
Lostine adults transferred, held, and spawned at Lostine River Hatchery	<del>May</del> <u>April</u> – October 1	<del>Transport of Adults collected at Imnaha Satellite</del> <u>eyed eggs transferred to Lostine River Hatchery for spawning</u>	<del>June – October 1</del> <u>October – November</u>
Incubation of Lostine stock eggs	August – February	<u>Incubation of eggs from Imnaha stock to eyed-stage and early rearing</u> at Lostine River Hatchery	<del>September – November</del> <u>November – April</u>
Final Rearing of Lostine stock	April (year 1) – April (year 2)	<del>Intermediate rearing</del> <u>Transfer of half of Imnaha eyed eggs from Lostine River Hatchery to Lookingglass Hatchery</u>	<del>April – September (year 2)</del> <u>Dependent on incubation water temperatures (approximately November)</u>
<del>Acclimation and</del> Release of Lostine stock	April (year 2)	<u>Rearing of half of Imnaha stock juveniles at Lostine River Hatchery and half at Lookingglass Hatchery</u>	<u>April (year 1) – March (year 2)</u>
		<del>Transfer of smolts to Imnaha Final Rearing Facility for final rearing prior to release from Imnaha Satellite Facility for acclimation and release</del>	<del>September (year 2)</del> <u>March – April (year 2)</u>

On page 3-21:

*Channel Alterations/Water Intake and Discharge Structures*

The Lostine River channel would be affected by the installation and placement of a surface water supply intake weir diversion structure and a fish ladder and outfall structure and riprap as described in Section 2.1.1. Construction and installation of in-water structures would take place over two seasons during ODFW's instream work window of July 15 – August 15. ~~July 1 – July 31~~. During the first season, the intake structure, fish ladder and associated pipeline would be installed. In the second instream work season, the weir would be constructed.

On page 3-22:

*Hatchery Operations and Management*

Water Gains and Losses: The Lostine River Hatchery would be in operation year-round. Surface water requirements for the facility are shown in Table 3.2-8. An additional 5 cfs would be diverted from the river through the fish ladder (for 60 feet) to provide sufficient attraction flow. Diversion of surface water from the intake to the outfall structure would take place over a linear distance of ~~2,800~~ 3,200 feet. For an average year, there appears to be adequate flow in the Lostine to accommodate hatchery demands, while leaving no less than ~~75~~ 65 percent of the flow in the river. However, during dry and/or cold years, water demand of the hatchery may be as much as 50 to 60 percent of the total flow in the river. ~~Instream Flow Incremental Methodology (IFIM) studies have indicated that at low flow, summer conditions (September), the minimum hatchery flow requirement is 11.5 cfs, which represents about 22 percent of the average flow in September and 50 percent of the September low flow (Montgomery Watson Harza 2001a).~~ This amount of diversion is necessary to support the hatchery during low flow periods and could potentially result in a decrease in the amount of instream habitat available. In September, when spring/summer chinook spawning does occur, the average flow near the proposed hatchery location is 50.2 cfs. Recommended withdrawals of 17.8 cfs would result in minimum flows of 32.4 cfs through the bypass reach. It is unlikely that the withdrawal would negatively affect chinook on a watershed scale since it constitutes only 14 percent of a small reach of spawning habitat over two weeks (R2 Resources 2002 and FishPro/HDR 2004a).

Rearing juvenile anadromous salmonids, particularly steelhead and chinook, and resident species may use the reach during low flow periods and may therefore be affected by withdrawals. ~~It is not likely that anadromous adults would be migrating upstream or downstream during September. Several bull trout redds have been observed within the diversion reach from late-September to mid-October and could be affected by low flows (Sausen 2004 and Sankovich 20024, personal communication).~~ Although prime chinook spawning habitat occurs just downstream of the proposed hatchery, where intake water would be returned to the river, local spawning habitat extends into the diversion reach (Zollman 2002b, personal communication; McMillen 2002, personal communication). Therefore, spawning chinook and their redds could potentially be affected by low flow. Juvenile bull trout and rapid turnaround spawners may out-migrate in September, but would likely remain higher upstream until Lostine River temperatures drop. Adult steelhead would be in the Snake River or arriving in the lower Grande Ronde during September ~~(for overwintering)~~ and would not likely be in the Lostine during that low flow period.

Low flows in the winter months are also a concern, since freezing temperatures and a lack of runoff can drop the river stage to 25 cfs or less. During these periods, water consumption at the hatchery can be reduced because fish activity and growth is near zero due to the cold water temperatures. To meet instream flow requirements for the bypass reach, the ~~minimum~~ low flow water budget shown in Table 3.2-8 would be implemented in low flow years and/or hatchery effluent would be pumped back to the hatchery intake to supplement instream flows in the Lostine River. Freezing at this section of the Lostine River is an existing limiting factor for salmonid use during winter months.

On page 3-23: Replace Table 3.2-8 with Table 2-2:

**Table 2-2. Surface Water Low Flow and Normal Flow Strategies, Mean Monthly Streamflow, and Historic Low Flows (cfs) for the Lostine River Hatchery.**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Low flow strategy <sup>1</sup>	15.0	15.0	14.2	7.5	0.7	0.0	15.0	15.0	15.0	15.0	15.0	15.0
Normal flow strategy <sup>2</sup>	15.0	15.0	15.0	7.5	2.8	2.8	17.8	17.8	17.8	15.0	15.0	15.0
Mean Monthly Streamflows <sup>3</sup>	49.8	47.5	55.3	162	513	788	383	86.2	50.2	56.4	64.3	58.7
Historic Low Flow (year) <sup>4</sup>	15.0 ( '37)	14.8 ( '37)	16.3 ( '55)	35.7 ( '75)	203 ( '77)	332 ( '26)	59.7 ( '77)	30.6 ( '31)	23.0 ( '31)	22.8 ( '88)	14.7 ( '36)	15.3 ( '36)

<sup>1</sup>Low flow strategy: minimum water required to maintain fish during low river stages. This strategy would be employed when facility use exceeds 50% of instream flow (due to lower than average instream water availability) or when facility needs reduce instream flow to less than 12 cfs in extreme drought years.

<sup>2</sup>Normal Flow Strategy: provides an improved rearing/holding environment through higher turnover rates during normal instream flow years.

<sup>3</sup>Source: USGS 2003. USGS Gage No. 13330000 on the Lostine River near Lostine, Oregon, water years 1912 - 2002.

<sup>4</sup>Year of occurrence.

On page 3-23 (first paragraph):

In order to minimize instream impacts during low flow conditions within the bypassed river reach, a pump station would be installed to ~~pump return the hatchery effluent back~~, along with supplemental well water, to the intake. The pumped flow would be introduced at the bottom of the fish ladder to return river water near the point of diversion. The pump station has been sized so that, when low flow management strategies are implemented, it could transport the entire diverted flow back to the intake location. To provide adequate fish habitat and passage a minimum river depth of 0.8 feet would be needed. An instream flow of about 10 cfs is required (R2 Resources 1998) to achieve this depth, but to ensure passage 20 percent more would be added to maintain a desired minimum flow of 12 cfs. These strategies would ensure that, at a minimum, a flow of 12 cfs or 50 percent of the total river flow, whichever is higher, would be maintained through the diversion reach. Therefore, with implementation of the pumpback system, facility water use flow alterations would not likely affect the viability of any fish population currently present, near or downstream of the Lostine River Hatchery at any time.

On page 3-23 (last paragraph):

Water discharged from the Lostine River Hatchery could be cooler than the receiving river water if chillers are used to maintain incubation and early rearing temperatures in the hatchery below-ambient temperatures. When well water is used it would also be cooler. Water temperature would increase only a fraction of a degree (0.072 Fahrenheit) during pumpback, and discharged water would still be slightly cooler than river water (Beasley 2004, personnel communication). Water released would mix rapidly with the river water downstream of the facility. Temperature changes would therefore be minor and ~~are not expected to~~ would not impact fish species.

On page 3-24 (start third paragraph):

During spring runoff, the weir would be submerged or level with the water surface, allowing fish to pass directly upstream or downstream over the weir. During periods of extreme low flow, the weir may block or delay passage of migrating fish. As previously discussed, summer low flow occurs in September and

may impact spawning bull trout and chinook, although impacts would be mitigated through implementation of the hatchery water pumpback system, when most migrating salmonids have passed the Lostine River Hatchery site. Winter low flow periods, occurring primarily in February, may delay adult steelhead migration if low flow continues into March and April. However, steelhead begin to move upstream in response to higher flows, and would not likely be impacted by winter low flows. Downstream migrants, such as steelhead kelts, rapid-turnaround bull trout spawners and bull trout sub-adults, may collect at the weir as they search for passage. Spring/summer chinook yearlings generally move downstream in early summer, and passage is not likely to be affected. Visual monitoring of the weir by fish biologists would be conducted in low flow periods to observe passage conditions. Corrective measures to encourage the survival of naturally reproducing adults would be applied should passage problems occur with operation of the weir. Corrective measures could include reducing the amount of water diverted into the intake (*i.e.* minimum, acceptable low flow strategies as opposed to the preferred normal flow strategy), which is part of the Proposed Action. Other measures, not specifically identified as part of the Proposed Action may include physical movement of migrants passed the weir.

Although lamprey are considered to be extirpated from the Lostine, reintroduction efforts may eventually be successful in returning them to the system. The pool and weir fish ladder would be designed to accommodate lamprey passage. Such designs could incorporate rounded corners within the structure to allow for safe passage of the species.

Broodstock Collection and Maintenance: During high flows, aAdult spring/summer chinook salmon (Lostine River stock) to be reared spawned at the Lostine River Hatchery would be trapped at the Lostine Adult Collection Facility, approximately four miles downstream, and During low flows, adults would be collected at the existing seasonal picket collapsible panel weir in the lower Lostine. Imnaha River stock would be trapped at the Imnaha Satellite Facility. Care would be taken to collect individuals from throughout the spawning run to represent a full genetic complement of individuals within the run. This would preclude a potentially large contribution to subsequent generations from a small segment of the parent population.

On page 3-25:

Adult Holding and Spawning: Spawning fish in a hatchery entails risks that may affect natural populations. Typical pre-spawning mortality under the current program is almost 20 percent (Ashe et al. 2000). Under the current program, adults collected at from the Lostine River are transported to the Lookingglass Hatchery, which is more than five times the distance of the proposed Lostine River Hatchery. Imnaha River stock are also currently transported to Lookingglass Hatchery. Holding and spawning of collected adults at the Lostine River Hatchery would likely result in less stress on transported fish. Therefore, the proposed Lostine River Hatchery would likely benefit fish that are currently trapped at the Lostine River and, to a lesser extent, fish trapped at the Imnaha River. Although individual mortalities may occur, overall abundance of spring/summer chinook is expected to increase by through implementation of the supplementation program. Following adult transfer and spawning at the Lostine River Hatchery, about one-half of the eggs of the Imnaha River stock would be transported to Lookingglass Hatchery at the eyed stage.

On pages 3-25 – 3-26:

Methods and Magnitude of Release: The magnitude and methods of release of hatchery fish affect the frequency and kinds of interactions between hatchery and wild fish. The timing of hatchery releases would consider the availability of local resources so as to avoid overwhelming the available rearing habitat and resources. Spring/summer chinook fry releases would be scheduled for times when food and

temperature conditions favor rapid growth and emigration. Spring/summer chinook presmolts would also be released near the end of the growing season to minimize competition with wild fish.

The Lostine River Hatchery would use the volitional release strategy where fish Lostine juveniles would be released directly from their rearing containers into the Lostine River. The use of the volitional release strategy assumes that fish would exit the rearing units over an extended period of time, thus spreading their impact on natural biota over time. To minimize competition between wild and hatchery stocks, smolts from the Lostine River Hatchery may also be transported upstream of the facility and scatter-point released directly into the river. This method would minimize competition within the immediate area of the hatchery by reducing the density and loading of the system in the immediate vicinity of the hatchery. Less fish means less competition for resources, including space, food and cover. Also, release of smolting fish reduces in-river residency time, as these fish are cued into actively migrating.

The impact on the spring/summer chinook populations is likely to be beneficial as this recovery project intends to increase the population status and trends over time. Impacts to other species of fish, including other salmonids, may occur through natural competition if the supplementation program returns enough spring/summer chinook to allow them to once again become the most prevalent inhabitant of the river system.

Juveniles of the Imnaha River stock (half reared at the Lostine River Hatchery and half at Lookingglass Hatchery) would be transported back to the Imnaha Satellite Facility in March for volitional release.

On pages 3-26 – 3-28: Edit Table 3.2-9 as shown in Table 2-3:

**Table 2-3. Summary Results of Impacts for NEOH Program Proposed Action Components within the Imnaha Subbasin, including the ~~Imnaha Final Rearing Facility~~ Across Panel Bridge Site and the Imnaha Satellite Facility.**

Construction/ Operational Component	Fish Category		
	Targeted spring/ summer chinook	Non-Targeted chinook	Other salmonids
Non-salmonids			
Siting and Construction of Facilities			
Site Disturbances	Impacts due to upland and in-water site disturbances from construction would have similar impacts to all fish species that may be present. Construction site disturbances are not anticipated to negatively affect population viability on a watershed scale. However, impacts to individuals may occur as a result of construction activities. <ul style="list-style-type: none"> <li>• Sedimentation due to construction may impact water quality. Impacts would be temporary and short-term.</li> <li>• Increased impervious surface area may result in increased runoff. Impacts would be long-term but limited in spatial scale to the immediate receiving waters.</li> <li>• Construction noise may disturb individuals, causing them to disperse from the site. Impacts would be temporary and short-term.</li> <li>• Removal of riparian habitat may result in decreased shading habitat, which may displace individuals. Impacts would be long-term but limited in spatial scale.</li> </ul>		

Construction/ Operational Component	Fish Category			
	Targeted spring/ summer chinook	Non-Targeted chinook	Other salmonids	Non-salmonids
Channel Alterations	<p>Impacts due to instream construction activities would have similar impacts to all fish species that may be present. Placement of permanent instream structures would result in a permanent loss of small amounts of instream and riparian habitat.</p> <ul style="list-style-type: none"> <li>• Cofferdams would alter instream flow upstream and downstream of the structure. Alterations may affect utilization of the area by fish species, including migrating salmonids. Cofferdam placement would directly reduce instream habitat available in the immediate vicinity of the construction site. Impacts would be short-term and limited in spatial scale to the site and construction impact areas.</li> <li>• Increased human presence and activity may disturb fish species and cause them to disperse from the immediate construction area. Impacts would be short-term and limited in spatial scale to the site and construction areas.</li> <li>• <del>Placement of Modifications to the Satellite intake, outfall, and installation of the weirs, ladders and riprap structures</del> would alter or remove instream habitat, causing individuals to seek other available rearing, holding or migratory habitat. Impacts would be long-term, but limited in spatial scale and are not anticipated to affect population viability.</li> </ul>			
Facility Operations and Management				
Construction/ Operational Component	Targeted spring/ summer chinook	Non-Targeted chinook	Other salmonids	Non-salmonids
Water Gains and Losses	<ul style="list-style-type: none"> <li>• Although water diversions would be non-consumptive, all species may be affected by <del>withdrawals</del> <u>reduced flow within the diversion reach</u>. Withdrawals would reduce instream habitat availability and may result in decreased utilization within the diversion reach during peak diversions and instream low-flow conditions. <del>To protect in-stream habitat minimum or acceptable flow strategies have been developed for the facilities.</del></li> <li>• These impacts would be long-term but limited to the immediate diversion reaches. Withdrawals may affect individuals but are not anticipated to affect the population viability on a watershed scale <u>as post-diversion flows are adequate to allow passage of species.</u></li> </ul>			
Water Quality	<ul style="list-style-type: none"> <li>• All discharged organic waste materials or chemical therapeutants would meet applicable state and federal standards. The potential for impacts due to these discharges is therefore low.</li> <li>• Water temperature of discharge water would be at ambient temperature. No impact to individuals or populations is anticipated to occur.</li> </ul>			
Fish Traps, Ladders, and Weirs	<p>Individuals and the population would benefit from improved adult attraction and collection facilities at the Imnaha Satellite Facility. Reduction in delay time to enter the fish ladder is anticipated. Fall back, and forced spawning below the weir are anticipated to be reduced. Effects would be long-term.</p>	<ul style="list-style-type: none"> <li>• Installation of the new <u>Chiwawa Imnaha Satellite Facility</u> weir is anticipated to benefit non-target species compared with existing conditions (No Action alternative).</li> <li>• Improved upstream and downstream passage during weir operation is anticipated.</li> <li>• Impacts would be long-term and limited spatially to the upper Imnaha River.</li> </ul>		

Construction/ Operational Component	Fish Category			
	Targeted spring/ summer chinook	Non-Targeted chinook	Other salmonids	Non-salmonids
Broodstock Collection and Maintenance	Spring chinook individuals and the population would benefit from improved broodstock collection and holding facilities. A reduction in stress and pre-spawning mortality from that obtainable with the existing operational program and facilities is anticipated. Effects would be long-term.	<ul style="list-style-type: none"> <li>• Non-target individuals may be affected by broodstock collection via handling, which may cause stress to individuals. This is an existing condition that would be improved with the implementation of the Proposed Action.</li> <li>• Impacts to population viability over the long-term are not anticipated.</li> </ul>		
Incubation and Rearing Practices	<del>Incubation facilities at the Imnaha Satellite Facility are anticipated to improve egg survival. Decreased acclimation rearing densities and reduced hauling trips/time would be beneficial for NEOH spring chinook over the long-term. It is anticipated that increases to survival and homing to natal streams.</del>	No impact	No impact	No impact
Fish Health Maintenance	<ul style="list-style-type: none"> <li>• Intensive fish health monitoring strategies would benefit all salmonids and result in less potential for the spread of disease.</li> <li>• Decreased <u>acclimation</u> rearing densities would benefit individuals by reducing the potential for the spread of disease within the hatchery population and, in turn, wild salmonid populations.</li> </ul>			No impact

On pages 3-28 – 3-33:

Replace entire **Imnaha Final Rearing Facility** section with the following:

**Acrow Panel Bridge Site** – Proposed activity at this site would involve removal of the existing Acrow steel panel bridge and associated concrete abutments and rehabilitation of the site. The panel bridge would be transported to and installed at the Lostine Adult Collection Facility.

*Site Disturbances*

Riparian vegetation removal would be limited to the area immediately surrounding the bridge abutments. Best management practices would be used to minimize sedimentation during work. All disturbed areas would be revegetated with native species.

*Channel Alterations/Water Intake and Discharge Structures*

Instream work within the Imnaha River channel would include access for cutting away existing concrete bridge abutments. All instream work would occur during ODFW’s instream work window (July 15 – August 15).

*Hatchery Operations and Management*

There are no hatchery operations proposed for the Acrow Panel Bridge Site.

On page 3-33 (start fifth paragraph):

Some smolts may continue to be reared at Lookingglass Hatchery according to the Current Production Program (CPP). However, the majority of Imnaha stock would be incubated at the Satellite Facility. All Eyed-eggs collected Imnaha River broodstock would be transferred from the Imnaha Satellite Facility to the proposed Lostine River Hatchery for spawning further incubation, early and intermediate rearing. Eggs would be incubated to the eyed stage, then half of the Imnaha River eggs would be transferred to Lookingglass Hatchery to continue incubation and rearing. The remaining half of the Imnaha eggs would continue to be held at the Lostine River Hatchery through final rearing. In March, all Imnaha River yearlings, including those reared at Lookingglass and those reared at the Lostine River Hatchery Final rearing would occur at the proposed Imnaha Final Rearing Facility, and upon completion, smolts would be transferred to the Imnaha Satellite Facility for acclimation and volitional release.

The proposed modifications to the Imnaha Satellite Facility would result in impacts to the aquatic environment due to site disturbances and channel alterations for modifications or additions of instream structures including a new Chiwawa hydraulically operated weir, an auxiliary water supply line that discharges through a diffuser at the base of the existing new fish ladder and ladder entrance, and an expanded screened intake. The existing intake structure’s screen is currently out of compliance with the 1996 NMFS NOAA Fisheries juvenile screening criteria, and would be brought into compliance through this project. Proposed modifications to the existing intake would include a new screening system that is NOAA Fisheries compliant.

On page 3-34: Edit Table 3.2-12 as shown in Table 2-4:

**Table 2-4. Imnaha Satellite Facility, Existing and Proposed Programs for Conventional Broodstock (Operated March – November).**

Existing		Proposed	
Life Stage	Time Period	Life Stage	Time Period
Fish collected at Imnaha Satellite	June – September	Adult fish collected and held at Imnaha Satellite	May – October 1
Adults transported to Lookingglass Hatchery: and then held, spawned, incubated and reared	September – April (year 2)	Adults <u>transferred to the Lostine River Hatchery for holding and spawning</u> <del>remain at Satellite for holding and spawning</del>	May – October 1
Returned to Imnaha Satellite for acclimation and release	April (year 2)	<del>Incubation to Imnaha</del> <u>eggs incubated to eyed stage</u>	August – November (approximate; <u>eyed development is dependent upon incubation water temperature</u> )
		<u>Transfer of half of eyed eggs to Lostine River Lookingglass Hatchery (half would remain at Lostine)</u>	October - November
		<u>Incubation and <del>early to intermediate</del> rearing of half of Imnaha stock at Lostine River Hatchery; half at Lookingglass Hatchery</u>	November – <del>September</del> <u>March</u> (year 2)
		<u>Transport of smolts from both the Lookingglass and Lostine Hatcheries to the Imnaha Satellite and final rearing at Imnaha Final Rearing Facility</u>	<del>September</del> <u>March</u> (year 2)
		<u>Return to Acclimation and release at Imnaha Satellite for acclimation and release</u>	March – mid April (year 2)

On page 3-34 – 3-35:

*Site Disturbances*

Upland construction includes expansion of the adult fish trap and holding areas; addition of a new water supply line; installation of an auxiliary water supply line near the fish ladder; pre-settling basin, incubation room, and formalin treatment system; and extension of a new power supply line six miles to the site enlarging an existing acclimation pond; installation of a rock sluice; and modifying an existing septic drainfield.

The construction of the new facility structures would take place within the existing site boundary. Construction would remove about seven ornamental trees that have been planted on the existing lawn. The 650-foot surface water supply pipeline would be installed under a gravel road that currently covers the existing intake pipeline. ~~The additional power supply would initiate from the Pallete Ranch, located about six miles downstream from the site. The power supply line is proposed to be buried under and along the existing access road Forest Service Road number 3955.~~ These activities would disturb ground and add about ~~one quarter of an~~ 0.12 acre of impervious surface to the site, which may lead to increased or rerouted erosion and sediment carried into the river. Increased runoff during construction is expected to be short-lived. Also, the Proposed Action includes erosion control devices such as silt fences, hay bales and other typical best management practices for erosion control.

Installation of the ~~power supply line and the~~ additional surface water pipeline would not disturb riparian vegetation. Most construction activities would occur away from the river, and where appropriate, areas would be revegetated upon completion. The removal of about seven ornamental trees would not impact riparian shading or fish habitat because the trees are not immediately adjacent to the river and do not currently provide shading habitat. Runoff from construction activities would be contained away from the river, and sedimentation would be minor.

On page 3-35:

*Channel Alterations/Water Intake and Discharge Structures*

Instream disturbances would include the expansion of the existing water intake structure and upgrade to its screens (to meet NOAA Fisheries criteria); installation of a hydraulically operated weir and fish barrier; and construction of a new fish ladder along side the existing ladder diffuser and water supply line to supplement attraction flow. All instream work would be conducted during ODFW's instream work window of July 15 – August 15.

On page 3-35 (fifth full paragraph):

Construction of instream structures would temporarily delay migrant fish passage. Adult chinook ~~begin entering the Satellite Facility on or around May 23 (Lund 2003, personal communication)~~ and generally spawn immediately adjacent to the construction area beginning in mid-August. Construction activities would, therefore, interrupt migration and spawning of those adult spring/summer chinook that are not needed for broodstock and are passed upstream for natural spawning. Juveniles that may rear in the area could be impacted. Spring/summer chinook are not generally known to spawn in this reach before mid-August (Zollman 2002a, personal communication; Smith, 2002, personal communication), but potential early spawners, however unlikely, could be impacted during construction.

On page 3-36 (start second paragraph):

The ~~p~~Proposed ~~a~~Action would replace the existing weirs with a Chiwawa hydraulically operated weir on the existing concrete sill. Installation would require ~~the addition~~ modification of concrete abutment walls on both riverbanks. Construction would take place within the area already impacted by the existing weir and concrete sill. Because spring/summer chinook spawners could be present at the time of instream work, a portable picket weir would be installed slightly downstream to direct adults into the fish ladder for collection or upstream passage. A cofferdam Sandbags would be used to dewater the weir construction area, one side of the river at a time. The placement of ~~sandbags~~ the cofferdam and the temporary picket weir has the potential to create minor sedimentation and affect fish habitat if river hydraulics are influenced.

~~A new fish ladder would be installed alongside the existing ladder coinciding with the weir installation. Riprap would stabilize the ladder at the river entrance, and a minor amount of riparian vegetation would be impacted. The existing ladder would remain to increase water flow and fish attraction to the new ladder. An auxiliary-water supply pipeline intended to augment the attraction flow within the existing fish ladder would be installed behind an existing concrete wall, beside the fish ladder. Construction timing would coincide with the weir installation. Because the auxiliary supply line would be installed behind the concrete wall, the existing fish ladder would operate during construction.~~

Construction of ~~the weir and ladder~~ in-water structures during the current ODFW instream work window may impact the passage of adult spring/summer chinook, potentially stressing individuals. Monitoring by fisheries biologists during construction would take place to observe passage conditions and determine if additional physical passage upstream or downstream of the construction area is necessary. Also, during their monitoring fisheries biologists would consider the need to use any alternate instream work windows to lessen impacts to spring/summer chinook.

On page 3-36:

#### *Hatchery Operations and Management*

Water Gains and Losses: Due to icing on the Imnaha during the winter and worker access difficulties, the Satellite Facility would only ~~operate~~ have fish on station from March through ~~November~~ September. Table 3.2-13 shows the maximum surface water withdrawals for the facility in comparison to the instream flows. Combining existing and proposed surface water withdrawals, ~~a no more than about 24~~ 9.6 cfs would be diverted from the river for juvenile acclimation and release (March – April); ~~no more than about 6 cfs would be diverted for adult bypass in May – September; and about 20.3 cfs more would be diverted for adult collection, holding and spawning (May 15 June – September 30).~~

~~An additional about six cfs would be required during adult collection to operate the adult recovery by-pass pipeline system.~~ During adult collection, a second separate intake is operated at a location about 800 feet downstream from the existing surface water intake (about 130 feet upstream from the existing picket fish barrier). This intake feeds a fish return channel with a maximum water right of six cfs and is operated only when adults are migrating. The intake diverts water into a channel with a 21-inch flow return pipe extending from the fish recovery area to a discharge location just upstream from the fish barrier. When adult sorting occurs at the adult trapping and holding facility, those adults and native fish not selected for broodstock are placed in a 12-inch PVC return tube and routed to the fish recovery area. From this area, the fish would hold until recovered, then swim volitionally back to the Imnaha River and on upstream.

On page 3-37: Edit Table 3.2-13 as shown in Table 2-5:

**Table 2-5. Maximum Surface Water Requirements and Mean Monthly Stream Gage Flow for the Imnaha Satellite Facility (cfs).**

	Mar	Apr 15	May 15	Jun	July	Aug	Sept
<b>Rearing and adult holding requirements<sup>2</sup></b>	<del>20.3</del> 9.6	<del>20.3</del> 9.6	<del>26.3</del> 6 <sup>2</sup>	<del>26.3</del> <sup>2</sup>	26.3 <sup>2</sup>	26.3 <sup>2</sup>	26.3 <sup>2</sup>
<b>Mean monthly streamflows</b>	92.0	341	804	859	453	150	87.1

<sup>1</sup> Source: USGS 2003. USGS gage located above Gumboot Creek, upstream of facility, water years 1944 - 1953.

<sup>2</sup> Includes six cfs for adult recovery bypass line during adult collection activities.

On page 3-38:

Fish Traps, Ladders and Weirs: Operation of the ~~new attraction-improved~~ fish ladder would likely benefit targeted and non-targeted spring/summer chinook through improved attraction to the ladder and less migratory delay. The current ladder entrance does not allow for efficient collection or passage, often resulting in downstream spawning of chinook that would normally spawn further upstream. ~~The new ladder would be equipped with about a 12 inch wide opening to allow for increased attraction flow near the Chiwawa weir.~~ No additional impacts to species that currently use the ladder are anticipated.

When in operation, the ~~Chiwawa~~-weir would provide the flexibility to lower individual panels to allow downstream steelhead kelts and bull trout passage. The existing picket weir does not have these capabilities. When not in operation, the new ~~Chiwawa~~ weir would be designed to lie flat under the water to allow downstream passage. A section on the west abutment would also be placed at a slightly lower elevation to support both upstream and downstream fish passage by providing a deep channel for migration. This type of barrier also operates effectively during high flow events, thus allowing better fish collection and passage than the current weir systems in place at the Satellite Facility.

For targeted spring/summer chinook, the weir would be designed to route fish to the base of the fish ladder, facilitating safer and more efficient adult collection. Although no adverse impacts are anticipated during operations due to adequate year-round flow, ~~Vigilant~~ visual monitoring of fish collection and instream structures would take place, especially during periods of low flow, to ensure that listed species are not negatively impacted by the upgraded structures.

On page 3-38:

Broodstock Collection and Maintenance: The Imnaha Satellite Facility ~~is an existing facility that~~ has been in operation since ~~1984~~ 1988. Methods of broodstock collection, and adult holding ~~and spawning, incubation and rearing practices,~~ and release methods are described in the HGMP for LSRCP Imnaha Spring/summer Chinook Program (ODFW 2002). The genetic risks associated with use and maintenance of broodstock have been previously discussed in the Lostine River Hatchery section.

On page 3-39:

Adult Holding and Spawning: As discussed within the proposed Lostine River Hatchery section, holding and spawning of fish may result in pre-spawning stress and potential mortalities of chinook or other species that enter the facility. Currently, fish collected at the Imnaha Satellite Facility are transported to Lookingglass for spawning. This transfer causes mortalities and additional stress on fish that are already stressed due to being held. The amount of stress that collected fish encounter would be reduced if ~~fish~~ the

broodstock were held and spawned at the ~~Satellite Facility~~ closer Lostine River Hatchery, as proposed. Although individuals may die, the mortality rate under the proposed program is anticipated to be less than that of the existing holding and transport program, and would be within an acceptable level as determined through program permitting.

Incubation and Rearing Practices: Incubation and rearing would occur at the proposed Lostine River Hatchery and at the Lookingglass Hatchery. ~~Imnaha Satellite Facility, or at another appropriate facility, until eggs are eyed. Spring/summer chinook eyed eggs would then be transferred from incubation units to appropriate rearing facilities. Final rearing would occur at the proposed Imnaha Final Rearing Facility. All Imnaha fish would be returned to the Imnaha Satellite Facility for acclimation and release.~~ Because of the use of techniques to maintain wild-type characteristics among hatchery fish, the impact on spring/summer chinook and other fish populations is expected to be minimal.

On page 3-39 (start on last paragraph) – 3-40:

A portion of the production may be direct stream released in small groups farther upstream of the ~~acclimation Imnaha Satellite Facility, or the acclimation facility may acclimate~~ different release groups may be acclimated sequentially. This release method would take place over a period of several weeks to allow the biological impact of the smolts entering the Imnaha to be spread over time.

On page 3-40 – 3-41:

### **3.2.4.3 Harvest and Poaching**

In recent years (1992, 1993, 2001, 2002, 2003), the only spring chinook fishery that has occurred in the Grande Ronde basin is for the (unlisted, non-native) Rapid River stock in Lookingglass Creek (Ashe 2004, personal communication). Harvest is authorized and regulated by ODFW with a Section 10(a) consultation. Presently, there is no harvest of spring chinook or bull trout in all tributaries, although catch and release fishing is allowed for bull trout within the Imnaha River. Only adipose fin-clipped steelhead may be taken in the Northeast zone (ODFW 2002). No bull trout harvest is allowed, and only adipose fin-clipped steelhead can be taken. Within both Lookingglass Creek and the Lostine River, angling is restricted to artificial lures and flies for all species. ~~Additionally, and all angling opportunities are closed 200 feet downstream from a hatchery water intake (ODFW 2003). In all tributaries of the Northeast zone, all trout, salmon and steelhead that are released must be unharmed and must not be removed from the water. Also protected within this zone are margined sculpin. These activities in conjunction with the Proposed Action cumulatively would not likely affect these fish species in the region.~~

Spring chinook harvest in the Imnaha is authorized by NOAA Fisheries (under the ESA tribal 4[d] rule) and regulated by ODFW and NPT. ODFW regulates the sport fishery and NPT regulates the tribal fishery. ODFW prohibits all non-hatchery chinook sport fishing within the Imnaha basin (ODFW 2003). In 1998, the NPT and ODFW cooperatively developed a management agreement for Imnaha River broodstock allocation and harvest of adults by setting adult escapement goals (Ashe et al. 2000). This agreement is outlined in Table 3.2-15. ODFW and NPT have developed an Imnaha River Spring Chinook Harvest and Management Plan annually since 2001 to forecast the adult return and determine appropriate level of harvest, which is shared equally between the state and the tribe (Ashe 2004, personal communication). During 1992 and 1993, in Lookingglass Creek tribal members harvested 173 and 110 Rapid River (non native) stock chinook returning to Lookingglass Hatchery. There is little information to describe current tribal harvest in the Lostine River. ODFW also restricts bull trout fishing to the Imnaha River, and allows only adipose fin-clipped steelhead to be taken throughout the basin (ODFW 2003).

**Table 3.2-15. NPT and ODFW Harvest Management Guidelines. (no change)**

Escapement Level	Harvest for Tribal Ceremonial Use	Harvest for Tribal Subsistence	Recreational Harvest
<300 for 2 consecutive years	*	*	No
51-700	Yes	*	No
>700	Yes	Yes	*

\* Decision made on case-by-case basis

These activities when considered together with the Proposed Action cumulatively would not likely affect fish species.

On page 3-42:

**3.2.5.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

Under the ~~no Action Alternative~~, the Imnaha Final Rearing Facility existing Acrow (steel panel) bridge and associated concrete abutments would remain at the site, and no short-term, construction-related impacts would occur. ~~not be constructed and therefore, construction and operation of instream features would not impact existing fish resources~~ Final rearing of Imnaha stock smolts would not take place in natal waters at the Imnaha Final Rearing Facility and long distance hauling stress on juveniles would continue. It is expected that Imnaha chinook runs, currently reared at Lookingglass and released at the Imnaha Satellite Facility, would increase, but at a slower rate than if the Imnaha Final Rearing Facility were not used for final rearing, due to the limited space and water available at Lookingglass Hatchery. The bridge would remain a part of the visual landscape and the bridge abutments would continue to armor a small stretch of river bank.

On page 3-49:

**Imnaha Final Rearing Facility Acrow Panel Bridge Site** — The ~~proposed Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ is located within the lower Imnaha subbasin, at an elevation of about 1,995 feet (Figures 2-6 and 3.9-4). Site topography is relatively flat and the river channel at this location is well-defined. Currently the site is used for cattle grazing, and the central portion of the site is devoid of woody vegetation and is dominated by introduced pasture grasses and weedy forbs. A narrow fringe of riparian vegetation, dominated by water birch, black cottonwood, willows, hawthorn and mountain alder remains along the river corridor. Ponderosa pine and black cottonwood are the primary overstory species found on the Imnaha River Road (east) side of the river. No significant springs, seeps or wetland areas were noted in the project area, except for a very narrow fringe along the river channel.

On page 3-51:

**3.3.3.1 Lookingglass Hatchery**

Proposed modifications to the existing hatchery would occur within the existing, developed area. Construction would result in minor new ground disturbance and would not increase the amount of impervious surface area currently present at the site (~~less than 1/4 acre~~). Temporary erosion and sedimentation impacts to riparian habitat would be minimal based on the limited amount of ~~new~~ construction, distance of ~~excavation~~ from Lookingglass Creek, amount and location of existing pavement and associated slopes, and implementation of best management construction practices.

On page 3-52:

### 3.3.3.2 Lostine Adult Collection Facility

Installation of the flow velocity barrier would require construction of concrete abutment walls and the removal of up to 20 feet of the river bank, including associated riparian vegetation. Placement of fill and riprap for construction of the flood-proofing levee would displace existing riparian habitat along another ~~300~~ 360 feet of the river channel. Construction of the proposed levee would also isolate small side channels and associated wetlands that occur on the west bank of the river. Although Columbia spotted frogs have not been documented at the site, impacts to potential habitat would occur as a result of site clearing, grading and filling and from potential changes to the existing hydrologic regime subsequent to construction of the west bank levee. Use of the riparian zone at the site for travel, dispersal, cover, foraging, resting and nesting by all local species would be temporarily impaired during construction.

Jackhammer use and other construction noise would produce noise levels that are likely to temporarily disturb wildlife occurring within a mile of the site. Temporary displacement of some individuals may occur. The high noise level activities would occur in July, during the instream work window. Noise impacts to wintering bald eagles that may use the area would be avoided by this construction timing. Removal of several large, dominant trees (black cottonwood and ponderosa pine) may limit long-term opportunities for bald eagle roosting in the immediate vicinity. Removal of potential perch trees would occur on both sides of the river; including from about ~~300~~ 360 feet of the west bank and from about 20 to 50 feet of the east bank. However, the majority of canopy trees would remain in place on the east bank.

On page 3-52:

### 3.3.3.3 Lostine River Hatchery

Construction of the proposed facilities would result in about ~~three~~ two acres of new impervious surface at the site. Numerous large trees, primarily grand fir, Englemann spruce, and black cottonwood, would be removed, as would a small number of diseased trees, snags and downed wood. Two small aspen stands occur at this site, and although impacts to these stands would be avoided to the extent possible and new aspen would be planted, some trees would be removed. Installation of the intake, screens, fish ladder and conveyance pipeline would result in the removal of about 100 feet of the riverbank and associated riparian habitat. Localized impacts would result from construction and stabilization of the outfall structure, which would require excavation of approximately 150 cubic yards of river bank material and placement of about 35 cubic yards of cobbles for stabilization of the structure.

On pages 3-53 – 3-54:

### 3.3.3.4 ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site

The Acrow panel bridge proposed for use at the Lostine Adult Collection Facility currently spans the lower Imnaha River at RM 26 and provides access to 10 acres of agricultural land, referred to as Marks Ranch. A crane would be used at this site to remove the bridge panels; the concrete abutments would be cut out of the stream bed. No trees (including snags or perch trees) are expected to be removed, although activities may require removal of a few shrubs. Disturbance would be minor and riparian areas would be revegetated with native plants. The entire removal would likely take less than one week and would be performed during ODFW's instream work window (July 15 – August 15). The proposed Imnaha Final Rearing Facility would be staffed year round, and operated from September through March. Proposed facilities include a residence, shop and bunkhouse; raceways, intake and outfall structures; well, pipelines

~~and septic system; access road and power; and relocation of an existing bridge. Prior to construction, up to three feet of rock fill would be placed on the lower end of the site. The vegetated riparian zone would be largely avoided. Construction of facilities would result in about three and one-half acres of new impervious surface at the six-acre facility.~~

~~The existing bridge would be relocated about 200 feet upstream of its current location, to a stable rock bar. A small number of trees and at least one snag would be removed due to placement of the bridge abutments. Additional snags occur in close proximity to the proposed bridge location, however, and it is possible that one or more additional snags would be affected either directly by placement of the structure, or indirectly if adjacent snags (overhanging canopy) interfere with equipment operation for safe placement of the panel bridge. Removal of large, dominant trees (black cottonwood and ponderosa pine) may limit opportunities for bald eagle roosting in the immediate vicinity. However, removal of snags and potential perch trees would be restricted to this location, and many others are available off-site.~~

~~Rock fracturing, drilling and excavation for installation of the intake structure and eConcrete cutting to dismantle the old bridge abutments would produce high, periodic noise levels that are likely to disturb wildlife within a mile or more of the site and alter normal behavior patterns. Temporary displacement of some individuals may occur. The highest noise level activities would primarily occur between July 15 and August 15, during the instream work window. Noise impacts to wintering bald eagles that may use the area would be avoided by this timing. No nesting territories are documented near the site (ONHP 2002). Disturbance levels resulting from remaining construction activities would likely be reduced, due to the lower noise levels generated, but may also cause temporary displacement of local wildlife.~~

~~The ability of many Imnaha subbasin riparian zones to support wildlife and provide aquatic habitat has been reduced by roads and livestock grazing. Exclusion of cattle from the riparian zone and supplemental planting of native species at the proposed Imnaha Final Rearing Facility would, iIn the long-term, removal of the bridge and abutments would improve the functioning condition of the riparian habitat along this stream segment. Some long-term adverse wildlife impact is expected at this site due to the loss of a small amount of riparian habitat, increased human access and human-related disturbances, and disturbance to potential bald eagle roosting habitat outside of the critical wintering period.~~

On page 3-54:

### **3.3.3.5 Imnaha Satellite Facility**

~~The improved Imnaha Satellite Facility would operate from March through October 1 ~~November~~ with one full-time operator on-site during that period. Construction of all new structures would be within the area of existing development. The construction work window would extend from late April to early November due to the remote location and high snow fall at the site. ~~The new acclimation pond, settling basin, modifications to the adult holding, and other miscellaneous site improvements would be constructed from June through November.~~ All instream work would occur from July 15 to August 15.~~

~~Proposed site improvements would disturb ground and add a small amount (~~one-quarter~~ 0.12 acres) of new impervious surface to the site. Construction noise and activity disturbances may alter the behavior and individual distribution of certain wildlife within the area, but these impacts are short-lived and are not expected to affect long-term use, abundance and distribution of wildlife in the area. Construction would not occur in the bald eagle wintering period and no nesting territories have been documented in the vicinity.~~

On page 3-60:

**Imnaha Final Rearing Facility Acrow Panel Bridge Site** — The ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ is ~~proposed located on about ten acres of~~ private land within the lower Imnaha subbasin, where Ponderosa pine communities grade into grassland communities (Figures 2-6 and 3.9-4). The site and surrounding areas are characterized by open, dry grassland communities while riparian areas are dominated by shrub and forest communities. ~~The site has long been used for grazing livestock. Evidence of an old homestead is apparent at the southeast end of the cleared pasture, where remnants of an orchard are found. The central portion of the site has no woody vegetation and is dominated by introduced pasture grasses and weedy forbs. Species include tall fescue, cheatgrass, orchard grass, timothy, meadow foxtail, ryegrass, clover, dandelion, English plantain, prickly lettuce, and yarrow. The Nez Perce Biocontrol Center survey identified the following invasive non-natives: common bugloss, Canada thistle, cheatgrass, bull thistle, common mullein, white horehound, and white campion (Nez Perce Biocontrol Center 2001). Species that were noted, but less common, include teasel and black medic.~~

A narrow fringe of wetland and riparian vegetation exists along the river corridor at the site. Common species include water birch, black cottonwood, willows, hawthorn, mountain alder, wild rose, snowberry, common mullein, horsetail and white campion. Ponderosa pine and black cottonwood are the primary overstory species found. Vegetation along the abandoned irrigation ditch (proposed pipeline location) is similar in nature to the riparian vegetation common throughout the area – dominant woody species include water birch, hawthorn, red-osier dogwood, mock orange, mallow ninebark, rose, chokecherry and plum.

Where the steep, rocky canyon walls and the river meet at the southern (upstream) portion of the property (proposed intake location), riparian vegetation is less disturbed and has greater diversity. ~~Species found in this area include Rocky Mountain maple, chokecherry, blue elderberry, mock orange, currant, poison ivy, blackcap, mountain sweet cicely, stinging nettle, buttercup and horsemint.~~

On page 3-61:

### **3.4.3.1 Lookingglass Hatchery**

The site is an existing fish production facility. All proposed improvements would occur within the existing, developed area and involve additions to existing facilities or internal changes to existing structures. ~~The raceways and storage building are proposed where native vegetation has been largely replaced with ornamental or invasive plant species. No direct impacts to the riparian zone, or other native habitats, are expected. Few, if any, No trees would be removed.~~

On pages 3-61 – 3-62

### **3.4.3.2 Lostine Adult Collection Facility**

Construction of a flood-proofing levee would result in the removal of about ~~300~~ 360 feet of riparian vegetation on the west bank of the Lostine River. Adjacent plant communities would be disturbed by equipment staging, the temporary access road and operation of equipment during construction of the levee. Construction of a concrete wall and the removal of about 20 to 50 feet of the river bank (to install the flow velocity barrier) would result in the removal of associated riparian vegetation.

Direct and indirect wetland impacts would occur as a result of proposed clearing, grading and filling for construction of the fish ladder, access and loading driveway. A net loss of about ~~12,000 to 15,000~~ 11,000 to 16,000 square feet (about .25 to .37 acres) of wetland area would result from installation of proposed project components, primarily in the vicinity of the parking area and the levee. Long-term, indirect impacts may also occur as a result of potential changes to the hydrologic regime of the site due to levee construction and proposed french drains. These impacts are not quantifiable at this time, but could involve changes to site plant composition (resulting from changes to the wetland water situation) and associated impacts to site wildlife (particularly amphibians). The Proposed Action includes a commitment to conduct a formal wetland delineation and to implement any compensatory wetland mitigation based on the outcome of the delineation and applicable regulations.

On page 3-62:

#### **3.4.3.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

Most of the project activity is immediately adjacent to the bridge and its abutments. Riparian vegetation removal at this location would be minor, and the site would be revegetated with native species when bridge removal is complete. ~~proposed in the center of the site, which currently lacks woody vegetation and is dominated by introduced pasture shrubs, grasses and weedy forbs. Removal of native vegetation is primarily limited to the intake structure and intake pipeline corridor (about 1000 feet, most of which is along an existing road), outfall structure (less than 20 feet) new bridge abutments (about 40 feet on each side of the river) and in the corridor for a new power line (about 300 feet). However, a small number of mature trees and at least one snag would be removed from the proposed bridge relocation site. Additional snags occur in close proximity to the proposed bridge location, however, and it is possible that more than one snag would be removed for the structure or to allow for safe equipment operation during structure placement. Where possible, the riparian zone would be replanted with native vegetation.~~

~~Exclusion of cattle from the riparian area and planting disturbed areas with native species would encourage more diverse riparian vegetation along the riverbank. Weed control at the project site would also encourage reestablishment of native vegetation after disturbance during site work.~~

On pages 3-62 – 3-63:

#### **3.4.3.5 Imnaha Satellite Facility**

Most construction activities at this existing facility would occur in areas devoid of native vegetation or in areas that are maintained as lawn and landscaping. ~~For example, no vegetation would be removed to install a new power line in the existing roadbed.~~ About seven young trees planted as ornamental landscaping would be removed. The new intake structure may result in minor incidental impacts to riparian vegetation as a result of brush clearing, excavation, and placement of structures and associated riprap. ~~A minor amount of woody riparian vegetation may be removed or disturbed where the new fish ladder would be installed adjacent to the existing ladder. Riprap would be used at this location to stabilize the ladder at the river entrance.~~

On page 3-65:

~~**Imnaha Final Rearing Facility Acrow Panel Bridge Site**~~ — The proposed Imnaha Final Rearing Facility Acrow Panel Bridge Site (Figures 2-6 and 3.9-4) is located in adjacent to a pasture about 1,200 feet downstream of an outcrop of Imnaha River Basalt. The Imnaha River bends at this location to flow around the bedrock outcrop. Such basalt outcrops and steep cliffs characterize this segment of the river. The alluvial soils are a mixture of angular gravel, cobbles and boulders in a silty and sandy matrix. The site is well drained, and groundwater is not evident at or near the surface. Talus (rock fragments that collect at the base of the cliff from which they derive) is evident in the fan that forms the bench above and upstream of the pasture area, which characterizes the bulk of the site. The erosion potential at the site is moderate.

On pages 3-65 – 3-66:

### **3.5.3.1 Lookingglass Hatchery**

~~Soil and rock would be excavated from the base of the rock slope in order to construct the new raceways at Lookingglass Hatchery. Surface weathering of the bedrock and joint fractures could weaken the rock and cause the slope to fail. Such failures would most likely occur if excavation encroached into the toe (base) of the slope, reducing slope equilibrium leading to localized failures and rockfalls. Slope failures caused by excavation and grading would tend to be relatively small and unlikely to cause extensive damage or injury. Slope instability would be addressed through a geologic assessment as part of project design and by establishing and maintaining adequate setbacks from unstable slopes. Slopes would also be revegetated and/or seeded with erosion control mix as feasible. With these design provisions and construction measures, there would be no impact to slope stability.~~

~~Soil erosion would be a concern during construction, especially during initial site grading, when bare soil would be exposed. Precipitation, stormwater runoff and wind on exposed soils would cause erosion during construction; however, the erosion potential would be low due to the rocky nature of the site and extremely limited extent of site work. In addition, the Proposed Action's best management practices (such as minimizing the extent of exposed or disturbed soil, installing sediment traps such as silt fences or hay bales, monitoring construction activities, and revegetating disturbed areas with native species) would largely control erosion during and following after construction. Erosion would be of limited duration and extent and would not be a concern beyond construction. The total area temporarily disturbed would be less than one acre and those areas would be within areas previously disturbed during initial hatchery construction and/or rock quarry activities.~~

On page 3-67 (first paragraph):

Hatchery construction would require clearing about five acres of upland pasture and adjacent woodlands. The site would be graded and filled with about 5,000 to ~~10,000~~ 6,000 cubic yards of rock from a nearby quarry to level the site and to provide flood protection. Soil erosion would be a concern during construction, especially during initial site grading, when bare soil would be exposed. Precipitation, stormwater runoff and wind on exposed soils would erode loose, fine-grained material. Soils would also be compacted through concentrated vehicle traffic and building activities. Soil compaction would decrease the natural permeability of soil and also contribute to accelerated runoff and erosion. The Proposed Action's best management practices (such as minimizing the extent of exposed or disturbed soil, installing sediment traps such as silt fences or hay bales, monitoring construction activities, and revegetating disturbed areas with native species) would largely control erosion during and following construction. The planned dewatering of instream work areas would reduce the amount of erosion within

the river, but would not eliminate it entirely. Riverbanks at the Lostine River Hatchery site are low and over-bank flood channels exist on both banks at the proposed intake structure. Site soils here are pervious, which could complicate channel dewatering and require extra effort and attention to keep the channel work areas dry. With these measures, erosion would be of limited duration and extent and would not be a concern beyond construction. About five acres of the six-acre site would be temporarily disturbed and about three acres would be permanently altered.

#### **3.5.3.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

~~Construction of Activity at the proposed Imnaha Final Rearing Facility Acrow Panel Bridge Site would involve relocating removing the bridge and bridge abutments from the site, and constructing an intake and two outfall structures. All of these activities have the potential to reduce slope stability and cause minor failure of the riverbank. While the slope is steep in the area of the intake structure, most of the bank in that location is rock outcrop and less likely to fail. The risk of instability is greatest during construction and could be a longer term concern without proper design and monitoring. Proper facility design, construction methods (such as adequately compacting fill, and appropriately placing the structures and riprap) and construction monitoring would prevent bank failure. Any disturbed, unarmored part of the riverbank would be revegetated with native species to stabilize the riverbank and improve the appearance of the area after removal of these structures. With these methods, there would be no decrease in riverbank stability or increase in risk to people or property.~~

~~Construction of the Imnaha Final Rearing Facility would require clearing about six acres of upland pasture and raising the lower portions of the site with up to three feet of rock fill to protect it from some flooding. Soil erosion would be a concern during construction, especially during initial site grading, when bare soil would be exposed. Precipitation, stormwater runoff and wind on exposed soils would erode loose, fine-grained material. Soils would also be compacted through concentrated vehicle traffic and building activities. Soil compaction would decrease the natural permeability of soil and also contribute to accelerated runoff and erosion. The Proposed Action's best management practices (such as minimizing the extent of exposed or disturbed soil, installing sediment traps such as silt fences or hay bales, monitoring construction activities, and revegetating disturbed areas with native species) would largely control erosion during and after construction. The planned dewatering of instream work areas would reduce the amount of erosion within the river, but would not eliminate it entirely. With these measures, erosion would be of limited duration and extent and would not be a concern beyond construction. Most of the six acres occupied by the facility would be temporarily disturbed and about three acres would be permanently altered.~~

On pages 3-67 – 3-68:

#### **3.5.3.5 Imnaha Satellite Facility**

Modifications to the Imnaha Satellite Facility would involve constructing a new intake, fish ladder and weir. All of these activities have the potential to reduce slope stability and cause minor failure of the riverbank. The risk of instability is greatest during construction and could be a longer-term concern without proper design and monitoring. Proper facility design, construction methods (such as adequately compacting fill, and appropriately placing the structures and riprap) and construction monitoring would prevent bank failure. Any disturbed, unarmored part of the riverbank would be revegetated with native species. With these methods, there would be no decrease in riverbank stability or increase in risk to people or property.

Modifications to the Imnaha Satellite Facility would involve disturbance of less than one acre of land, much of which was previously altered during earlier construction. Soil erosion would be a concern during construction, especially during initial site grading, when bare soil would be exposed. Precipitation, stormwater runoff and wind on exposed soils would erode loose, fine-grained material. The Proposed Action's best management practices (such as minimizing the extent of exposed or disturbed soil, installing sediment traps such as silt fences or hay bales, monitoring construction activities, and revegetating disturbed areas with native species) would largely control erosion during and following construction. The planned dewatering of instream work areas would reduce the amount of erosion within the river, but would not eliminate it entirely. With these measures, erosion would be of limited duration and extent and would not be a concern beyond construction. Less than one-quarter acre would be temporarily disturbed and permanently altered by the facility modifications.

On page 3-71 (fourth full paragraph)

~~Groundwater exploration wells were drilled at the site between December 1998 and January 1999. December 2000 (Montgomery Watson 1999b and 2001). Aquifer pumping tests were conducted to determine well production and potential affect on other domestic supply wells in the area. Hatchery wells were determined to have a combined optimal production rate of 1,350 gpm. Montgomery Watson concluded that desired groundwater production levels for the hatchery could be sustained and regulated without affecting production in nearby domestic wells. Production potential from one groundwater well was estimated between 1200 gpm. Production can apparently be sustained for long term pumping without affecting nearby domestic wells. Another groundwater production well at the site, which has not yet been developed for testing, may produce up to 100 gpm (Montgomery Watson 1999b).~~

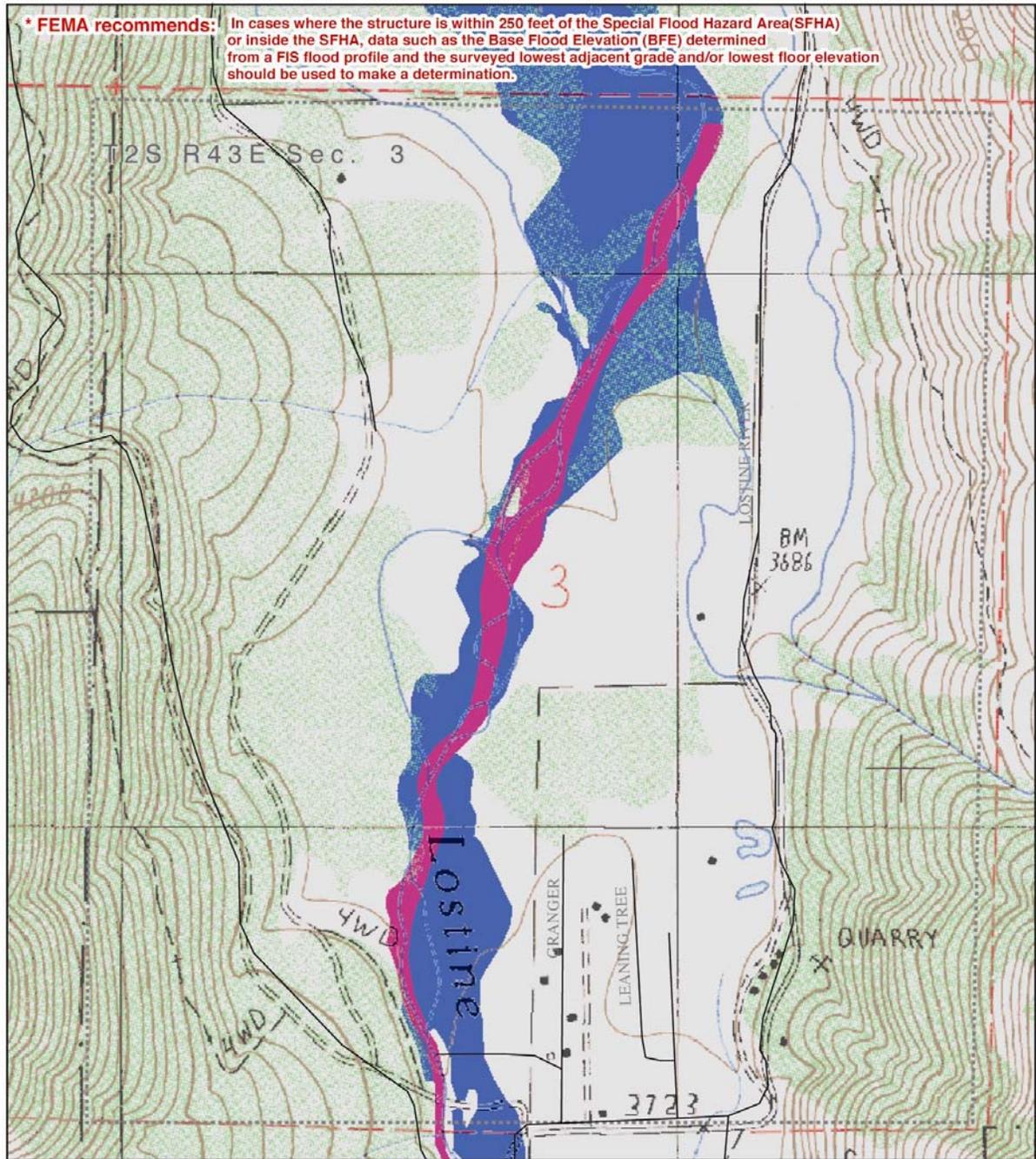
On page 3-72:

**Imnaha Final Rearing Facility Acrow Panel Bridge Site** — ~~The proposed Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ (Figures 2-6, 2-7 and 3.9-4) is located on a flat, bedrock outcrop at a bend on the west side of the Imnaha River approximately six miles upstream of the town of Imnaha. Plateau and canyon terrain with incised basalt bedrock and steep cliffs characterize this segment of river. The gradient and the presence of bedrock limit the formation of broad floodplains. Although high flood-stage flows are typically contained within the river channel, floodwater can overtop the banks causing minor flooding. The 500-year storm event in 1996-97 caused flooding of less than one foot on the south quarter of the site (Montgomery Watson Harza 2001a). At the northern portion of the site, the turn in the Upper Imnaha River Road has been reconstructed with engineered fill slopes to support the roadway. The toe of the slope reaches the river's edge and is protected with riprap. Currently, the small-vehicle bridge to the site has abutments that constrict river flow at flood stage.

On page 3-74:

### **3.6.3.3 Lostine River Hatchery**

The proposed Lostine River Hatchery and its access would be constructed adjacent to the Lostine River, ~~largely outside its within its active 50- to 100-year floodplain as mapped by FEMA (Figure 2-1, Final EIS).~~ Peak flows generated during spring runoff or a major 100-year+ storm event may be diverted or impacted by the presence of instream hatchery structures development which could change the flood dynamics at or below the site. Montgomery Watson conducted a preliminary hydraulic analysis in 2000. The results of that analysis indicated that these facilities would not change the river cross section or cause flooding. A more refined hydraulic analysis would be conducted as part of final design (McMillen 2004,



T2S R43E  
Section 3



- Zone A- Areas within the 100-year floodplain or SFHA, but the Base Flood Elevations have not been established. Flood insurance is mandatory. FEMA Elevation Certificates are required for construction within these areas.
- Zone A FW- Areas within the 100-year floodplain (see Zone A). An area that includes the channel of a river or other watercourse
- Zone X- An area that is determined to be outside the 100- and 500-year floodplains

**Figure 2-1**  
**Lostine River Hatchery Site —**  
**FEMA Map: 100-Year Floodplain**

personal communication). The Lostine River reached its fifth highest flow on record in 1999 and resulted in massive flooding in the watershed (BPA 2001). The hatchery site reportedly did not flood during the 1999 event. Still, proposed placement of fill and construction of the hatchery could alter flood flows and impede the natural movement of floodwaters during flood events larger than the one in 1999. Given past trends excessive flooding of the site would likely be infrequent, but if it occurred excessive flooding could damage equipment and structures, cause localized erosion and sedimentation, alter large flood flows and change local **morphology**. ~~Locating the facilities within the active floodplain would have an adverse impact, but past flood events at the proposed site indicate that~~ Based on the location of most of the facilities outside the 100-year floodplain and the results of the preliminary hydraulic analysis, the likelihood of increased flooding is low.

The location of in-stream structures such as the hatchery intake, fish ladder, and weir would be located in a wide section of the river and, as such, would not change the river cross section or cause flooding. ~~would reduce natural channel area, impede flow, and disrupt the natural flow regime at the site. C~~ However, these changes to the natural flow could cause localized, continued bank erosion and occasional limited flooding in the immediate vicinity. ~~Installing the Obermeyer gate and intake structure would exacerbate the existing river constriction caused by the bridge abutments and further reduce the natural channel area. This would lead to increased flooding risks (i.e., flood height and frequency) just upstream from the intake structure. It would also result in more rapid bank erosion rates both upstream and downstream of the bridge.~~ The proposed outfall structure would be installed downstream of the hatchery facility within a small side channel, so it would not likely impede or alter river flow.

On page 3-75 (start first paragraph):

Hatchery water would come from the Lostine River and groundwater wells. Water use would be non-consumptive, meaning that all water used would be treated and returned to the Lostine River. Diversion of surface water from the intake to the outfall structure would take place over a linear distance of about ~~2,800~~ 3,200 feet ~~or about a half-mile reach~~ of the river upstream from the outfall at the hatchery site. Average monthly flows on record (from 1912 to 1999) range from about 48 to 64 cfs between September and March and for April through August flows range from 90 to 800 cfs. For an average year, there appears to be adequate flow in the Lostine to accommodate hatchery demands, while leaving no less than ~~75~~ 65 percent of the flow in the river. However, during dry and/or cold years, water demand of the hatchery may be as much as 50 ~~or 60~~ percent of the total flow in the river. ~~IFIM studies have indicated that at low flow, summer conditions (September), the minimum hatchery flow requirement is 11.5 cfs, which represents about 22 percent of the average flow in September and 50 percent of the September low flow (Montgomery Watson Harza 2001a). This amount of diversion is necessary to support the hatchery during low flow periods. (Montgomery Watson Harza 2001b).~~

In order to minimize instream impacts during low flow conditions within the bypassed river reach, a pump station would be installed to pump the hatchery effluent back, along with supplemental well water, to the intake. The pumpback system and/or implementation of a low flow strategy to divert less river water) would be employed to ensure that a minimum of 50 percent of the total flow or 12 cfs remains in the Lostine River through the diversion reach, whichever is greater. The pumped flow would be introduced at the bottom of the fish ladder to return river water near the point of diversion. The pump station would be sized so that when low flow management strategies are implemented, the pump could transport the ~~entire~~ diverted flow back to the intake location. Because of the pumped return strategy, even during extreme conditions, impacts to flows would be short-term and limited to the ~~one-half mile~~ 3,200-foot reach of the river immediately upstream from the hatchery (Montgomery Watson Harza 2001b). According to engineering estimates, W~~ater temperature chance is not anticipated under the Proposed~~

Action: increases for water pumped back to the intake would be about 0.072 degrees Fahrenheit under the highest expected soil surface temperatures (Beasley 2004, personal communication).

Groundwater used at the hatchery would come from three on-site wells. These wells have a combined production rate of up to 1,350 gpm. Aquifer pumping tests conducted at the site resulted in a calculated drawdown rate of 1.5 feet in the nearest domestic well (the well at the BPA-owned house in the Lostine subdivision) after 10 weeks of continuous pumping (Montgomery Watson 2001). According to Montgomery Watson (2001), simultaneous, continuous pumping of the three hatchery wells would only be required for about 2 to 3 months per year under normal hatchery operations. Montgomery Watson concluded that desired groundwater production levels for the hatchery could be sustained and regulated without affecting production in nearby domestic wells.

On pages 3-75 – 3-76:

#### **3.6.3.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

The proposed Imnaha Final Rearing Facility and bridge would be constructed Acrow Panel Bridge Site is adjacent to the Imnaha River within the 100- to 500-year floodplain. The site is on a low-lying, flat basalt bedrock shelf covered by alluvial sediments. The site is only partially flooded during extreme runoff events such as a 100- to 500-year flood.

Data from the USGS Imnaha gage five miles downstream of the site indicate that river stage can increase substantially and sometimes double during a 100- to 500-year storm event as it did on January 1, 1997 (USGS 2003). While estimating infrequent flood events involves considerable uncertainty, and the available data are not directly transferable, the data suggest that a similar increase could occur at the Imnaha Final Rearing Facility Acrow Panel Bridge Site. However, during large storm events such as the one on January 1, 1997, the site does not typically flood. When it does flood, waters are typically less than one foot deep and confined to the lowest portion of the site (Montgomery Watson Harza 2001a).

The proposed project design would place two to three feet of fill over the low side of the site to raise it above the current projected 100-year floodplain. This would reduce flood potential by keeping most major flood events from overtopping the west bank and inundating the proposed facility. A 500-year flood event could potentially inundate the site, disrupt facility operations, overwhelm onsite drainage systems and damage vulnerable equipment (i.e. electric pumps, controllers, raceways, etc). Overall, however, flood impacts at the site would be reduced by the Proposed Action because it would consist of removing the panel bridge and bridge abutments. The Proposed Action would benefit river flow and restore river banks to a more natural condition in the immediate vicinity of the bridge by revegetating the area after removing the existing abutments that somewhat restrict flow. For the river channel itself, fill placement on the site would restrict flows during temporary high water events, confining them to the active channel. This would result in higher water levels in the active channel and an increased potential for downstream flooding, scour, and erosion during extreme events such as 100- to 500-year floods.

The effects of the proposed intake and outfall structures on river flow, while adverse, would be very localized. The proposed intake structure, while it may affect localized flow patterns, would not represent a substantial flow impediment, would not change the overall flow regime or cause flooding. The proposed fish bypass outfall would have riprap flood protection on its upstream and downstream sides. The bypass outfall would be placed outside the main channel and would not impede or alter the typical flow regime. The main hatchery outfall would be armored with riprap and would only disrupt flow in its

~~immediate vicinity. While the new bridge abutments would slightly disrupt flow, they would be an improvement over the current situation.~~

~~Instream construction, excavation and grading, bridge construction and placement of fill activities could introduce sediment or other construction-related contaminants to the Imnaha River over short periods of time resulting in localized temporary water quality effects. However, the Proposed Action includes best management practices to reduce sedimentation and contamination, as described in Chapter 2 and Section 3.5 of this EIS. For example, instream construction of the intake structure, raw water pipeline, fish bypass, outfall structure, and bridge would employ temporary cofferdams or other water diversions appropriately placed to route water around instream work areas. Flow would remain in the channel, but be directed away from work areas. This would reduce potential sedimentation and portable pumps would be used to help keep work areas dry. Pump discharge would be routed through a sediment basin prior to discharge back into the Imnaha River. With use of these best management practices, the Proposed Action is not expected to result in violations of water quality standards during or after construction, or cause any change to water temperatures. No long-term changes in water quality would be expected since structures are being removed from the site.~~

~~The proposed septic system would be designed and built according to applicable standards to prevent leaching of fecal coliform and other contaminants into the Imnaha River. The construction and operation of the proposed septic system would not result in water quality impacts that would exceed regulatory thresholds.~~

~~Water supply for this facility would be provided from the Imnaha River. Water use would be non-consumptive, meaning that all water withdrawn would be treated and returned to the river downstream of the facility. As described in Section 3.2.1 of this EIS, the maximum flow required for rearing at the Imnaha Final Rearing Facility is about 23 cfs, based on the preferred NATURES criteria flow scenario. This flow would be required for a short period of time between late February through March yearly. In addition to the water required for rearing, about 10 cfs would be diverted through the intake to operate the fish screening and bypass pipeline. This diversion would take place over about the first 600 feet of the about 1,200 feet of diversion from the intake to the outfall.~~

~~Based on river flow measurements obtained from the USGS gage near the town of Imnaha, the required withdrawal would account for less than 25 percent of the total river flow for periods of average low flow. During below normal years, drought years or extremely cold years, when the flow is considerably below normal, the hatchery may demand up to 50 percent of the flow. However, based on historic Imnaha River gage data, years with extremely low flows are infrequent. The flow reductions would be localized to the reach of the river between the intake and the outfall and would be temporary due the water treatment and return strategy planned for the facility.~~

On pages 3-76 – 3-77:

### **3.6.3.5 Imnaha Satellite Facility**

The proposed new fish barrier would benefit river flow by removing the existing barrier that currently restricts flows. The structure would provide improved flexibility for operation and maintenance and would also reduce the need for instream maintenance work. The new barrier combined with the more effective fish ladder ~~(along side the existing ladder)~~ would improve river flow and fish passage through the facility.

The existing intake structure would be enlarged to accommodate desired higher flow rates for the facility. The intake structure modification would add capacity to the current intake structure to provide the about 20 cfs needed for fish acclimation as described in Section 3.2.3.2 of this EIS. An additional about 6 cfs diversion is currently being used, and would continue to be required during adult collection, to operate the adult recovery by-pass pipeline system. This would be accomplished through use of a second separate intake operated about 800 feet downstream from the existing intake structure. During extremely low flow periods of early fall, these diversions could alter the river's natural flow regime in the immediate vicinity of the intake. However, since these diversions would be temporary and localized they are not expected to affect the overall flow of the river in the area.

On page 3-78 (fourth paragraph):

The ~~Innaha Final Rearing Facility~~ Acrow Panel Bridge Site and the Innaha Satellite Facility are both located on the Innaha Wild and Scenic River segment classified as Recreational.

On page 3-79:

### **3.7.1.2 Innaha Wild and Scenic River Comprehensive Management Plan**

As discussed above, the Innaha River Wild and Scenic River Management Plan classifies the segment of ~~segment of~~ the river along which the ~~Innaha Final Rearing Facility~~ Acrow Panel Bridge Site and Innaha Satellite Facility are located as Recreational. The Management Plan also calls for five management actions: 1) District / HCNRA responsibilities; 2) motorized restriction on the scenic segment of the river; 3) education and monitoring program on scenic segment of the river; 4) fisheries projects; and 5) historic/prehistoric. The management action addressing fisheries projects is the only one that applies to the proposed project sites. This management action states:

On page 3-80 (last paragraph) and pages 3-80 – 3-84: Edit Table 3.7-1 as shown in Table 2-6:

Table 3.7-1 provides an overview of the effects of the Proposed Action on the ORVs of the Innaha Wild and Scenic River. ~~In addition to the beneficial impacts to ORVs related to fisheries, two adverse impacts would occur with the Innaha Final Rearing Facility: 1) the loss of riparian vegetation at the intake structure and bridge would adversely effect the vegetation / botanical ORV and 2) the loss of ten acres of cattle grazing land would adversely effect the tradition and lifestyle ORV.~~

**Table 2-6. Effects of the Proposed Action on ORVs of the Imnaha Wild and Scenic River.**

Outstandingly Remarkable Value	Effects of the Proposed Action
<p><i>Scenic</i> – There is great contrast and variety of landforms, vegetation, and color throughout the Imnaha subbasin. The pastoral setting of the predominately ranch-oriented middle section of the river evokes images of a classic western landscape. The middle section of the river, where the hatchery facilities are proposed, is classified as Recreational (U.S. Forest Service 1993a); river segment classifications of Wild, Scenic or Recreational are described in FSM 2354.41 Exhibit 01 and FSM 2354.42). A large, high voltage power line; the steep, dramatic bunch grass covered basalt layered canyon walls; the string of ranches, residences, pastures, and developed campgrounds; and the Imnaha River itself dominate the seen landscape and capture the typical visitor’s attention.</p>	<p>Passing motorists on the Upper Imnaha River Road <del>could</del> <u>would no longer</u> catch a glimpse of the bridge, <del>buildings, access road, and other supporting structures at the Imnaha Final Rearing Facility Acrow Panel Bridge Site.</del> These features <del>would not seem out of place in a setting where a mix of ranch houses, residences, barns, corrals, sheds, garages, and associated rural scene appurtenances are commonplace.</del> The Imnaha Satellite Facility would not be seen any differently than it is now except to the astute observer who could detect the proposed structural changes within the existing compound, <del>or occasional evidence of the buried power line in the road corridor.</del> Neither site <del>would be such a drastic contrast in architectural style, size or nature of development that it would dominate or greatly detract from the scenery in general.</del> Both sites <u>The Imnaha Satellite Facility</u> would be recognizable as <u>administrative facilities a facility used for natural resource (fisheries) management.</u></p> <p><del>The Imnaha Final Rearing Facility would be on the other side of the river from the Upper Imnaha River Road in what is now a small, privately owned livestock pasture. The proposed buildings would be wood-sided, bland colored, simple in architectural style, set back as far from the river as possible, and mostly screened from view by existing native riparian vegetation (including large trees) on both sides of the river and new supplemental native landscaping plantings around the site. The road and fish raceways would be mostly screened as well. The water intake and outlet structures would be obscured from view either by vegetation, water, riverbank angle, or strategic placement near boulders or other visual obstructions. The pipelines to the hatchery and outlets would be buried, and disturbed soil revegetated. Where that is not possible, the intake pipeline would be covered with mortar and cobbles so it would blend in with the background. Thus, a</del> <u>No change to the scenic ORV would occur as a result of the Proposed Action at the Imnaha Satellite Facility and a slight improvement would occur at the Acrow Panel Bridge Site except right at the project site.</u> The viewer’s reaction to the change may be positive or negative depending on personal preference and beliefs and the intensity of reaction (positive or negative) likely would diminish over time as the viewer became more accustomed to the site.</p> <p>See also Section 3.9 of this EIS for more information on visual resource impacts of the Proposed Action.</p>

Outstandingly Remarkable Value	Effects of the Proposed Action
<p><i>Recreation</i> – Located within the HCNRA, popular pursuits include hunting, fishing, sightseeing, horseback riding, hiking, snowmobiling, and camping.</p> <p>Dispersed camping and developed camping are the dominant use along the river within the Forest boundary. Other activities include picnicking, mushroom picking, photography, and cross-country skiing.</p> <p>Much of the river (&gt;45%) is on private property including the bed and banks. In most cases, the recreational opportunities on private land are limited to sightseeing and photography from the Imnaha River Road. The Wild and Scenic Rivers Act does not change private land rights, so the recreational value should be tempered on private lands.</p> <p>Some recreational activities, although they may exist in the river corridor, were not determined to be part of the ORV. These include boating, rafting, recreational gold dredging, and recreational experiences associated with modern camping facilities.</p>	<p>Proposed modifications to the existing Imnaha Satellite Facility would not change any recreational opportunities around the site. <del>However, if the existing diesel generator is replaced by the proposed underground power line (buried in the road right of way), the noise levels from the Satellite Facility would decrease, which would provide a better experience for nearby forest visitors. Also, the proposed new communication line to the facility could aid in emergency situations and overall area management.</del></p> <p>The proposed <del>Imnaha Final Rearing Facility</del> <u>Acrow Panel Bridge Site</u> is on private land far from any dispersed or developed recreation site managed for the public. Public recreation is limited to sightseeing and photography from the Upper Imnaha River Road. The <del>site of the Imnaha Final Rearing Facility</del> <u>Acrow Panel Bridge Site</u> is not known as a particularly unique sightseeing opportunity or popular photo point. The proposed facility’s effect on sightseeing is discussed above under Scenic ORV.</p> <p>Other recreational activities that were not determined to be part of the ORV do not occur at or near the proposed project sites. Thus, no degradation of the recreation ORV would occur as a result of the Proposed Action.</p> <p>See also Section 3.10 of this EIS for more information on recreational impacts of the Proposed Action.</p>
<p><i>Fisheries</i> – This emphasizes the populations of the threatened <del>spring/summer and fall</del> Snake River chinook salmon, steelhead and bull trout, and their habitat. The river was historically an important producer of spring/summer chinook, however today’s runs are probably a small fraction of historic runs.</p>	<p>One of the purposes of the Proposed Action is to provide adequate hatchery facilities to help in the conservation and recovery of ESA-listed anadromous spring/summer chinook salmon native to the Imnaha subbasin while not being detrimental to other species. Therefore, the Proposed Action should ultimately enhance the fisheries ORV, and other benefits associated with fisheries (recreation, quality of life, economics, etc.). In this situation, locating acclimation <del>and rearing</del> facilities where natal waters can be used is vitally important for returning chinook to those waters to spawn naturally as adults. <del>In addition, the proposed facilities allow future implementation of intense monitoring, evaluation and research of all aspects of the local fisheries and affected species, water conditions, and certain habitat requirements.</del></p> <p>See also Section 3.2 of this EIS for more information on fisheries impacts of the Proposed Action.</p>

<b>Outstandingly Remarkable Value</b>	<b>Effects of the Proposed Action</b>
<p><i>Wildlife</i> – This value pertains to wildlife populations and habitat in the Imnaha River corridor. It includes Rocky Mountain big horn sheep and a variety of other species including mule deer, elk, and black bear.</p> <p>ESA-protected and U.S. Forest Service sensitive species within the corridor are an important part of the ORV.</p> <p>The ability to view a variety of wildlife in the corridor is also important.</p>	<p>Site surveys suggest the Proposed Action would affect no ESA-protected or U.S. Forest Service sensitive species of wildlife. Although some temporary disturbance of wildlife could occur during construction, neither project site involves actions that would affect critical habitat or large enough amounts of common habitat to change the quantity, variety, use, or visibility of any wildlife in the river corridor.</p> <p>Scavengers of post-spawning chinook salmon (e.g., eagles, mammals, etc.) could be more seasonally prevalent in the area if the spring/summer chinook salmon runs improve.</p> <p>See also Section 3.3 of this EIS for more information on wildlife impacts of the Proposed Action.</p>
<p><i>Historic/Prehistoric</i> – Nez Perce historic and prehistoric sites, as well as Euro-American historic sites, are included in this value.</p>	<p>No historic or prehistoric sites were detected during surveys of the proposed facility sites. Any sites uncovered later would be protected until they could be assessed for appropriate remediation. So, no effect on historic/prehistoric values is anticipated.</p> <p>See also Section 3.8 of this EIS for more information on impacts of the Proposed Action on historic and prehistoric sites.</p>
<p><i>Vegetation/Botanical</i> – Emphasis is on the ESA-protected or U.S. Forest Service sensitive species of plants.</p> <p>Also included is the plant and ecosystem diversity that can be found in the Imnaha River corridor. The river corridor starts at 8,000 feet and descends to 950 feet. Most ecosystems found on the Wallowa-Whitman National Forest can be identified in the river corridor.</p>	<p>Site surveys indicate that the Proposed Action would not adversely affect any ESA-protected or U.S. Forest Service sensitive species of plants. The Proposed Action would not alter the general vegetative and ecological diversity in the Imnaha River corridor, though minor amounts of native and non-native vegetation would be removed where new facilities and utilities would be located. Replanting of native species and control of weeds at disturbed sites, and use of native shrubs and trees as visual screening of facilities would mostly offset the amount of native and non-native vegetation affected. Less than one acre of riparian vegetation and about one acre of upland native vegetation would be permanently lost as a result of the Proposed Action.</p> <p>See also Section 3.3 of this EIS for more information on vegetation impacts of the Proposed Action.</p>

Outstandingly Remarkable Value	Effects of the Proposed Action
<p><i>Traditional Value/Lifestyle Adaptation</i> – This relates to the lifestyle that has evolved and is representative of the early Euro-American settlers within the Imnaha River corridor.</p> <p>This lifestyle is dominated by a ranching/farming tradition that has evolved over time. This lifestyle, as it relates to the river, is an extension of how the river corridor has been used for years, including the use by the NPT.</p>	<p><del>At the site proposed for the Imnaha Final Rearing Facility, cattle grazing would be discontinued on less than ten riverside acres. In a landscape where livestock ranching covers wide expanses of public and private land, the grazing could be easily moved to another, less sensitive site. The Proposed Action would be inconsequential to the continuation of the western ranching traditional value/lifestyle in the area.</del></p> <p><del>Because the Imnaha Satellite Facility already exists, n</del>No change in traditional values or lifestyles would be expected due to the minor modifications proposed <del>there</del> <u>at either the Acrow Panel Bridge Site or the Imnaha Satellite Facility.</u></p> <p>With integration of the Imnaha facilities with the other hatchery facilities in the Proposed Action, chinook salmon runs in the Imnaha River would likely improve over the current situation, thereby enhancing the traditional values and lifestyle pursuits related to their presence and abundance. This would be particularly important to the NPT and CTUIR.</p> <p>See also Section 3.8 of this EIS for more information on impacts of the Proposed Action to traditional values and lifestyle.</p>

On page 3-84:

**3.7.3.1 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

~~Because components of the proposed Imnaha Final Rearing Facility would be constructed and installed within the bed and banks of the Imnaha River and may affect the free flow of the Imnaha River (see Figures 2-6, 2-7 and 3.9-4), whether the free flow of the Imnaha Wild and Scenic River is substantially altered is an issue. The Proposed Action would remove the existing bridge and bridge abutments at the Imnaha Final Rearing Facility Acrow Panel Bridge Site, which would eliminate a constriction to river flow. However, the installation of a replacement bridge upstream of the existing bridge would result in placing abutments that would also constrict the natural river flow. This constriction of the natural river flow would be slightly less than under current conditions (see Section 3.6 of this EIS for more information on water flow impacts of the Proposed Action). The final design of the replacement bridge would result in the bridge abutments being placed in locations that minimize effects on the free flow of the Imnaha River. Thus, no adverse change to the free flowing condition of the Imnaha River is expected as a result of the bridge replacement and abutment removal, and flow conditions may actually be improved because of the bridge replacement.~~

On page 3-85 (start second full paragraph):

During ~~construction of activity at the Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site, best management practices would be implemented to suppress the effects of erosion and sedimentation. With these best management practices, ~~construction- demolition and other on-site~~ activities would introduce only limited amounts of sediment for a short time into the river. Although adverse, the impact of these

activities construction on water quality would be localized, of short duration, and within state and federal regulatory standards or CWA Section 404 permit parameters.

### 3.7.3.2 Imnaha Satellite Facility

Improvements to the existing intake structure ~~and weir~~, replacement of the existing weir, and construction of a new fish ladder beside the existing installation of a water supply pipeline and diffuser to improve attraction flows at the existing fish ladder, are the three components of the proposed Imnaha Satellite Facility that would take place within the bed and banks of the Imnaha River (Figures 2-8 and 3.9-5). The intake structure improvements, though small, would slightly impede or alter natural river flows and ~~is~~ are considered to be an adverse impact to the free flow of the river at that spot. Also, the additional water taken by the intake structure for hatchery operations would decrease the flow in the river channel between the intake and outfall for a distance of about ~~900~~ 1000 feet (see Sections 3.2 and 3.6 of this EIS), but the river would maintain its free flow appearance overall. The new ~~Chiwawa~~ hydraulically operated weir would replace an existing picket weir and would slightly improve the free flow of the river. Thus, the overall effect of this facility on river flows would be minimal.

On page 3-85:

### 3.7.5 Consequences of Taking No Action

The No Action Alternative would mean no change to the free flow, water quality, or Outstandingly Remarkable Values of any Wild and Scenic River. The opportunity to improve conditions in the Imnaha Wild and Scenic River by enhancing fish recovery with hatchery facilities, removing the access bridge at the Imnaha Final Rearing Facility Acrow Panel Bridge Site and replacing the weir at the Imnaha Satellite Facility would be foregone.

On page 3-87:

### 3.8.1.2 Surveys and Consultation

The NPT Cultural Resource Program Archaeologist surveyed the sites for cultural resources. These surveys consisted of pre-field background research and on-site surveys to identify any cultural materials present and to gauge the likelihood of the presence of unseen cultural materials. Test excavations (shovel-surveys) were performed at two sites (Lostine River Hatchery and ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site) deemed by the Tribal Archaeologist to have the potential for undiscovered cultural resources due to vegetation limiting ground visibility, past agricultural activities and a likelihood of buried cultural deposits (NPT 2002).

On page 3-87 – 3-88:

### 3.8.3.1 Lookingglass Hatchery

Oregon Parks and Recreation Department records indicated no recorded cultural or historic sites near the Lookingglass Hatchery (Figures 2-2 and 3.9-1). During the on-site survey, no cultural materials were observed in the project area. Since no cultural materials were detected during surveys, and this is an existing facility and modifications would occur within areas already developed, no impacts to cultural resources are anticipated. On February 25, 2004, the Oregon State Historic Preservation Office documented their concurrence with BPA's determination that no historic properties would be affected by the Grande Ronde – Imnaha Spring Chinook Hatchery Project. However, cConstruction activity would

be monitored by a person knowledgeable about cultural resources. If evidence of cultural materials is found, site work or activity would be halted until the site could be assessed. Notification of and consultation with the SHPO, NPT Cultural Resource Program and CTUIR would also occur as appropriate.

### **3.8.3.2 Lostine Adult Collection Facility**

Oregon Parks and Recreation Department records indicated no recorded cultural or historic sites near the Lostine Adult Collection Facility (Figures 2-3 and 3.9-2). During the on-site survey, no cultural materials were observed in the project area. On February 25, 2004, the Oregon State Historic Preservation Office documented their concurrence with BPA's determination that no historic properties would be affected by the Grande Ronde – Imnaha Spring Chinook Hatchery Project. However, ~~c~~Construction activity would be monitored by a person knowledgeable about cultural resources. If evidence of cultural materials is found, site work or activity would be halted until the site could be assessed. Notification of and consultation with the SHPO, NPT Cultural Resource Program and CTUIR would also occur as appropriate.

### **3.8.3.3 Lostine River Hatchery**

Oregon Parks and Recreation Department records indicated no recorded cultural or historic sites near the Lostine River Hatchery (Figures 2-4 and 3.9-3). During the on-site survey, no cultural materials were observed in the project area. A site shovel-survey also showed no indication of cultural materials. So, no impacts to cultural resources are anticipated. On February 25, 2004, the Oregon State Historic Preservation Office documented their concurrence with BPA's determination that no historic properties would be affected by the Grande Ronde – Imnaha Spring Chinook Hatchery Project. However, construction activity would be monitored by a person knowledgeable about cultural resources, and if evidence of cultural materials is found, site work or activity would be halted until the site could be assessed. Notification of and consultation with the SHPO, NPT Cultural Resource Program and CTUIR would also occur if necessary and appropriate.

### **3.8.3.4 ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site**

Oregon Parks and Recreation Department records indicated only one cultural site in the area (35WA812), near the mouth of Dunlop and Thorn Creeks, ~~located on the opposite side of the Imnaha River from the project area. No proposed new facilities (bridges, power lines, etc.) would be located near this site.~~

During the ~~on-site~~ survey conducted in the vicinity, an irrigation ditch was observed ~~on to~~ the southwest of the Acrow Panel Bridge. ~~edge of the project site within the area of potential effect (where site disturbance or construction is expected, Figure 2-6).~~ In addition to the irrigation ditch, an old homestead and orchard are known to exist in the project vicinity ~~outside of the area of potential effect.~~ A site shovel-survey showed no indication of other cultural materials. Since the ditch, homestead and orchard would be avoided by project activities, no impacts to cultural resources are anticipated. On February 25, 2004, the Oregon State Historic Preservation Office documented their concurrence with BPA's determination that no historic properties would be affected by the Grande Ronde – Imnaha Spring Chinook Hatchery Project. However, ~~construction~~ activity would be monitored by a person knowledgeable about cultural resources. If evidence of cultural materials is found or impacts to known materials occur, site work or activity would be halted until the site could be assessed. Notification of and consultation with the SHPO, NPT Cultural Resource Program and CTUIR would also occur as appropriate.

### 3.8.3.5 Innaha Satellite Facility

The NPT Archeologist is conducting a cultural resource review for the proposed powerline to be located under or along the Upper Innaha River Road connecting the site to the existing PacifiCorp substation about six miles to the north. Though no sites are expected in the road corridor, if any are discovered during survey or installation of the line, they would be avoided by rerouting the line underground or taking it overhead to avoid further disturbance of the ground. On February 25, 2004, the Oregon State Historic Preservation Office documented their concurrence with BPA's determination that no historic properties would be affected by the Grande Ronde – Innaha Spring Chinook Hatchery Project. However, All other all construction activity would be monitored and if evidence of cultural materials is found, site work or activity would be halted and the Oregon SHPO, NPT Cultural Resource Program and CTUIR would be notified and consulted regarding more detailed investigation. Since no cultural materials were detected during the site survey, and this is an existing facility and modifications would occur within areas already developed, no new impacts to cultural resources are anticipated.

On page 3-89:

### 3.8.5 Consequences of Taking No Action

The No Action Alternative would have ~~the~~ no adverse impact on cultural or historic resources physically located on or in the ground at the sites. The No Action Alternative has the potential to adversely impact the salmon resources in the area due to continued stock declines if not augmented by the project.

On page 3-90 (fourth paragraph):

Public views of the site and existing facility are available from places along the Lostine River Road. However, as shown in Photos 6 and 8, views of much of the site from the roadway are partially or fully screened by relatively dense vegetation. The number of potentially affected viewers is low due to light traffic volumes and the vegetation screening is highest in the summer months, but then views would be partially or fully screened by vegetation.

On pages 3-90 (seventh paragraph) and 3-94 (first paragraph):

Public views of the site are available from the north end of Granger Road and the adjacent residential subdivision (Photo10). From further away on Granger Road and from the Lostine River Road, several hundred yards across the valley, vegetation screens views of the site (Photo 9). Photos 11 and 12 show views of the intake structure location as seen from the bridge where Lostine River Road crosses the river. In general, views of the intake structure location would be limited by intervening vegetation, except when viewed from a larger (higher) vehicle or when stopped on the bridge and looking directly up river.

On page 3-94:

### 3.9.1.3 Innaha Subbasin

The Innaha River watershed originates in the Wallowa Mountains with most of the watershed located in the pristine Eagle Cap Wilderness. The Innaha River is a tributary of the Snake River and is designated Wild and Scenic. Steep canyon walls of layered basalt rim rock with scattered stands of conifers, riparian streamside vegetation and grassy slopes of native bunch grasses characterize the deep river canyon in lower reaches (e.g., the Innaha Final Rearing Facility Acrow Panel Bridge Site).

Many small creeks flow into the river from the ridge to the east dividing the Imnaha River and Hells Canyon. The Upper Imnaha River Road parallels the river for much of its length and a 230kV-transmission line follows the river in the vicinity of the proposed ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site and Imnaha Satellite Facility sites.

~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site — Located approximately five miles south of the town of Imnaha, the ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site site (Figure 2-6) is situated on the west bank of the Imnaha River. This ~~ten-acre~~ site lies between the river and the base of steep basalt canyon walls that rise to elevations of over 6,000 feet. Native grasslands predominate on the open slopes adjacent to the bridge and pockets of forest and riparian vegetation are found along the river. Scattered rural residences, ranch buildings, and cleared pasture are found along the road north and south of the site. Photos 13 through 16 show views of the site (Figure 3.9-4).

The ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site site ~~primarily occupies~~ is adjacent to a large pasture of introduced weedy forbs situated at an elevation of about 2,000 feet. A narrow band of dense mature riparian vegetation, including willows and shrubs, lines the riverbank on the site (Photos 14 and 15). Site access is via the Upper Imnaha River Road ~~and across a private bridge~~. As shown in Photos 13 and 16, a non-continuous mix of riparian vegetation and conifers is found along the roadway. The site is currently undeveloped except for ~~a steel the bridge across the river, primitive access road, irrigation ditch and orchard~~. A rural ranch residence is located ~~across the river~~ east of the site. Photo 16 shows the view looking north from this residence. Partially screened foreground views of the site bridge are available from places along the adjacent Upper Imnaha River Road. The number of potentially affected viewers is low due to light traffic volumes, the speed of travel past the area, and the attraction of other scenic features.

On page 3-97:

#### **3.9.1.4 Public Plans and Policies Pertinent to Aesthetics**

The Land Use, Recreation and Transportation section of this EIS (Section 3.10) identifies the various land use plans or policies that are applicable to the Proposed Action. As outlined in that section, the Lookingglass Hatchery is within the area covered by Union County's land use plans. The other four sites are within the area covered by Wallowa County's land use plans. The Imnaha Satellite Facility is exempt from county regulations because it is a federal site. The two Lostine River sites and the ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site may be reviewed by Wallowa County's Natural Resources Technical Advisory Committee (Black 2002).

Two of the sites, the Imnaha Satellite Facility and the ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site, are situated along the Imnaha River Wild and Scenic River corridor. The Imnaha Satellite Facility is located on land administered by the Wallowa-Whitman National Forest within the HCNRA. The ~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site, while on private property, is located near Forest Service land (also within the HCNRA).

On page 3-98:

~~Imnaha Final Rearing Facility~~ Acrow Panel Bridge Site — In addition to the policies summarized for the two Lostine sites, the Timber Grazing designation also applies to the ~~Imnaha Final Rearing Facility's~~ Acrow Panel Bridge Site. Siting requirements for Timber Grazing development include minimum setbacks from adjoining properties, clustering near or among existing structures and siting buildings close to existing roads (Wallowa County 1988b).

On page 3-99 (list following third paragraph):

- 1.) Lostine Adult Collection Facility – View from Lostine River Road (Figure 3.9-6).
- 2.) Lostine River Hatchery – View from Granger Street (Figure 3.9-7).
- 3.) Lostine River Hatchery Intake – View from the Lostine River Road Bridge (Figure 3.9-8).
- 4.) ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~– View from the Upper Imnaha River Road (Figure ~~3.9-9~~ 2-2, Final EIS).
- 5.) Imnaha Satellite Facility – View from the Upper Imnaha River Road (Figure 3.9-10).

### **3.9.3.1 Lookingglass Hatchery**

Changes in the appearance of the Lookingglass Hatchery site (Figure 2-2) would be within the existing hatchery administrative site. ~~Many of~~ These modifications would involve changes to the interior of existing structures, interior equipment and the facility’s electrical system. ~~The proposed modifications that would affect the site’s outward appearance include a proposed 6 bay garage building, minor modifications to the existing fish production building, and the addition of three new raceways.~~ Minor amounts of excavation ~~w~~ could occur in conjunction with construction.

On page 3-105:

### **3.9.3.2 Lostine Adult Collection Facility**

Changes in the appearance of the Lostine Adult Collection Facility site (Figure 2-3) would include partial removal of the existing concrete fish ladder and replacement with a new concrete fish ladder and weir structure. Riprap would also be installed on both sides of the riverbank south (upstream) of the new facility. The existing bridge would be replaced with the bridge removed from the Acrow Panel Bridge Site. Grading and vegetation removal would occur at the construction staging area and along the riverbank in the vicinity of the fish ladder and bridge. Figure 3.9-6 shows a “before” and an “after” view of the Lostine Adult Collection Facility site as seen from the Lostine River Road.

On page 3-105 (last paragraph):

The intake would include a new concrete fish ladder and intake structure topped with a small wood-sided building. A concrete weir structure would be constructed across the river at this location. During some periods the weir would be in a more noticeable raised position with water spilling over the top and a pool of water created upstream. The simulation also shows the removal of a small group of conifer trees on the riverbank. The simulation view depicted in Figure 3.9-8 would be seen by northbound roadway travelers for a few seconds at the river crossing. Except for a relatively brief glimpse, southbound travelers would not generally see the intake. The intake facilities would be visible to those stopped on the bridge (in the roadway) and looking upriver.



Existing view from Imnaha River Road looking south



Visual simulation of Acrow Panel Bridge Site (after bridge removed)

ENVIRONMENTAL VISION and Environmental Science Associates

**Figure 2-2**  
**Acrow Panel Bridge Site**

On page 3-106:

### **3.9.3.4 ~~Innaha Final Rearing Facility~~ Acrow Panel Bridge Site**

~~The Innaha Final Rearing Facility Acrow Panel Bridge Site (Figure 2-6) would include removal of the existing steel panel bridge and associated bridge abutments, three new buildings—a storage/shop building, a single family residence, and a bunkhouse. These buildings would be wood-sided and located as far from the river as possible within the relatively level portion of the site. Additional facility components would include ten concrete raceways (long rectangular ponds), a concrete intake structure and a concrete outfall, and a cleaning waste basin. The existing access bridge across the Innaha River would be relocated about 200 feet upstream. Project construction would involve clearing about six acres of pasture land and filling the northern section of the site up to three feet to raise the new facilities above the 100-year flood level. Most of the riparian vegetation would be retained and riparian vegetation would be replanted in the area where the existing bridge would be removed and where additional screening is desired.~~

~~Figure 3.9-9 shows “before” and “after” views of the Innaha Final Rearing Facility Acrow Panel Bridge Site as seen from Innaha River Road looking south. The “after” view is shown in Figure 2-2 of the Final EIS, which replaces the view in Figure 3.9-9 of the Draft EIS. As shown in the visual simulation, the surrounding landscape would remain unchanged except for the absence of the bridge, the storage building, fill bank, cleaning waste basin and relocation of the existing bridge would be partially visible from this viewpoint. The new facilities would generally be sited within the existing pasture and located to take advantage of screening provided by existing large woody vegetation. Due to vegetation screening, the facilities would be visible to the public intermittently and for a brief duration from limited sections of the roadway. The relocated bridge would be visible from the road and would be similar to the existing bridge in appearance and degree of visibility.~~

~~Although the site is located within a Wild and Scenic River corridor with a “retention” VQO, the designation does not apply to privately owned lands (U.S. Forest Service 1993a). However, bridge and abutment removal would be consistent with the “retention” VQO and enhance the visual quality of the area. most of the on-site screening vegetation is being retained along the Innaha River and an informal planting of native trees and shrubs would be strategically planted at the site, along the south side of the Innaha River Road to screen facilities from roadway views. The buildings would exhibit a simple style, consistent with other buildings in the vicinity (*i.e.*, not starkly different). Exterior colors and materials would be chosen to blend with the surrounding natural landscape. All lighting would be directed on-site. Outdoor lighting would generally be directed downward. No inconsistencies with the Wallowa County Comprehensive Land Use Plan relative to visual quality are apparent. Adherence to Wallowa County Land Development Ordinance Development Standards relative to visual concerns would be controlled by building permits.~~

On pages 3-106 – 3-107:

### **3.9.3.5 Innaha Satellite Facility**

~~The Innaha Satellite Facility (Figure 2-7) modifications would include installing a new fish barrier across the river to replace an existing diversion weir, installing a new improving the existing fish ladder next to the existing fish ladder, enlarging the existing fish holding and trapping areas, constructing a new settling basin rock sluice, and modifying the existing intake structure. ~~The existing spawning shelter would also be enlarged to accommodate a new incubation room. New powerlines would be buried in the Innaha River Road.~~~~

Figure 3.9-10 shows a “before” and an “after” view of the Imnaha Satellite Facility site as seen from Imnaha River Road. As shown in the simulation, ~~the new fish ladder and addition to the spawning shelter project work~~ would be apparent but not particularly noticeable from the roadway. These effects would only be visible to the public from limited places along Imnaha River Road immediately adjacent to the site and from the visitor parking area. In general, as seen by the public, the facility’s appearance with proposed changes would be very similar to its current appearance, except during and immediately after construction. Given the site’s location within a Wild and Scenic River corridor and within a National Forest area with “retention” VQOs, the anticipated visual effects could represent an adverse visual effect. However, because views of the facility that would occur after that Proposed Action would not be substantially different from existing views, and because the existing facility is somewhat of a public attraction (it is open to visitors), the amount of change in visual quality is expected to be minor.

On pages 3-109 – 3-110:

#### **3.10.1.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

The proposed ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ (Figure 2-6) is located about five miles south (upstream) of the town of Imnaha, Oregon. Joseph, Oregon is the closest city and is located approximately 40 miles away. ~~The proposed site is privately owned pasture, consisting of a large meadow located between steep canyon walls to the west and the Imnaha River to the east. Evidence of an old homestead is apparent on the south end of the meadow.~~ Mature willows and shrubs grow along the riverbank. The ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ is located within both the Imnaha Wild and Scenic River corridor (Section 3.7 of this EIS) and the HCNRA. However, the proposed site is private property. It is not available for public access or recreation use and does not appear to be used informally.

The Wallowa County Comprehensive Land Use Plan (Wallowa County 1988a), as outlined in Section 3.10.1.2, provides guidelines for facility development at the ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~. More specific guidance is provided by the Wallowa County Land Development Ordinance (Wallowa County 1988b).

The ~~Imnaha Final Rearing Facility Acrow Panel Bridge Site~~ and surrounding lands are zoned a combination of EFU and Timberland-Grazing or T/G (Jones 2002, personal communication). The EFU zone provides areas for continuation of existing commercial agricultural activities. The EFU zone only allows those new uses that are compatible with agricultural activities. ~~The propagation, cultivation, maintenance, and harvesting of aquatic species are conditionally permitted pursuant to the County’s Public Hearing Review process.~~ The T/G zone consists of areas for commercial farm and forest activities and permits the establishment of new uses that are compatible with agricultural and forest activities. ~~Fish hatcheries and associated residences are permitted within the T/G zone.~~

The site is accessed via the Upper Imnaha River Road (County Road 551) ~~and a steel panel bridge across the river~~. The Upper Imnaha River Road parallels the river most of the way to the Imnaha Satellite Facility, becoming Forest Service Road 3955. The Upper Imnaha River Road is mostly unpaved, but in generally good condition. Traffic volumes are low. The road mainly provides local access to scattered ranches and residences and some access for hiking, camping, horseback riding and fishing within the Wallowa-Whitman National Forest, including access to HCNRA, Hells Canyon Wilderness, and other destinations. Trucks transporting livestock and ranch supplies are not uncommon.

On page 3-111 (sixth full paragraph):

The Proposed Action would affect existing roadways and traffic levels by temporarily increasing traffic during construction and slightly increasing traffic once the Lostine Adult Construction Facility becomes operational. The facility would see limited, seasonal use consistent with surrounding uses. Given the low daily traffic volumes in the vicinity of the site, the short duration of construction, and the low numbers of trips related to operations, the Proposed Action would cause only limited transportation impacts. The facility would improve access for the property owner, by replacing the bridge and providing parking and a turnaround. The Acrow panel bridge would be easily transported on County roads in manageable panels from the Imnaha River site. No special traffic provisions would be necessary.

On page 3-112 (second full paragraph):

The Proposed Action would affect existing roadways and traffic levels by temporarily increasing traffic during construction and slightly increasing traffic once the Lostine River Hatchery becomes operational. The Lostine River Hatchery would generate traffic from the on-site residents, one local employee and a weekly supply trip. Four full-time and two temporary workers would be employed at the Lostine River Hatchery (Zollman 2003, personal communication). For about three weeks in January, up to five eight additional round-trips per day would be generated by four to eight temporary workers hired to mark fish at the hatchery. Up to eight round trips are anticipated during normal hatchery operations with an additional 10-20 trips during special events such as repair work, smolt transfer, tagging, etc. (Zollman 2003, personal communication). The project includes watering Granger Road as necessary to reduce dust and paving the road following construction, which would permanently reduce dust and enhance local residential access. Section 3.12.3 of this EIS discusses potential air quality effects. Given the low daily traffic volumes in the vicinity of the site, the short duration of construction, the low numbers of trips related to operations, and the planned road improvements, the Proposed Action would cause only limited transportation impacts.

On page 3-112:

#### **3.10.3.4 Imnaha Final Rearing Facility Acrow Panel Bridge Site**

~~The proposed Imnaha Final Rearing Facility would be a conditionally permitted land use under the Wallowa County zoning regulations and would be subject to the County's Hearing Review process. The proposed facility would be generally compatible with surrounding agricultural and residential uses and the adjacent Upper Imnaha River Road. The facility would be a new land use at this location and would convert pasture along the river to fish production. Once operational, the level of activity at the facility would be limited and compatible with the residence and road across the river. Much of the facility would be screened from view by existing riparian vegetation, which would be retained. Design considerations discussed under Section 3.9 of this EIS would enhance compatibility and maintain visual integrity.~~

~~The Imnaha Final Rearing Facility Acrow Panel Bridge Site is not available for public recreation use and does not appear to be used informally. The proposed ~~facility would be~~ is located on private land within the Wild and Scenic River Corridor, which is designated for recreation. The provisions of the Imnaha River Wild and Scenic River Management Plan serve only as guidelines for private property (U.S. Forest Service 1993a). Section 3.7.3 of this EIS provides additional discussion of potential impacts to Wild and Scenic Rivers. Over the long run, the Proposed Action of bridge removal would potentially enhance have limited effect on recreational opportunities ~~if chinook stocks were recovered sufficiently to enhance viewing and salmon fishing~~ although removal of bridge abutments may have a slightly beneficial effect on the river channel.~~

The Proposed Action would affect existing roadways and traffic levels by temporarily increasing traffic during construction, and slightly increasing traffic once the ~~Innaha Final Rearing Facility~~ becomes operational. ~~The Innaha Final Rearing Facility would generate a few daily trips associated with the residence and bunkhouse, but the number of trips would be similar to those generated by nearby residential and agricultural uses. Potential traffic hazards at the Innaha Final Rearing Facility would be addressed by relocating the bridge and constructing a turning lane on the Upper Innaha River Road to increase sight distance, allow passing and accommodate a wider turning radius for fish hauling trucks accessing the site. The Acrow panel bridge would be easily transported on County roads in manageable panels from the site to either the Lostine Adult Collection Facility or other approved site. No special traffic provisions would be necessary.~~ Given the low daily traffic volumes in the vicinity of the site, and the short duration of construction, ~~the low numbers of trips related to operations, and the planned road and bridge improvements,~~ the Proposed Action would cause only limited transportation impacts.

On page 3-113:

### **3.10.3.5 Innaha Satellite Facility**

The existing Innaha Satellite Facility is located on Forest Service land, within the boundaries of the Wallowa-Whitman National Forest and is subject to the goals and policies of the Forest Plan, the HCNRA Comprehensive Management Plan Draft EIS (U.S. Forest Service 1999), and the Innaha River Wild and Scenic River Management Plan (U.S. Forest Service 1993a). The existing facility operates under a Special Use Permit from the Forest Service, which would be amended to allow the modifications in a manner consistent with the Forest Plan. ~~A separate Special Use Permit would be required for the new powerline that would run underground about six miles along the Upper Innaha River Road.~~

On page 3-120 (first full paragraph):

The proposed ~~Innaha Final Rearing Facility~~ bridge Acrow Panel Bridge Site is about 300 feet from the nearest residence. ~~The facility residence and a shop would be about 500 feet and 750 feet, respectfully, from this residence and separated from the residence by the Upper Innaha River Road and the Innaha River.~~ Road and river noise and some nearby farming and ranching activities are the noises typical of this area.

On page 3-121:

### **3.14.1 Affected Environment**

The proposed new facilities and facility improvements are located in rural areas of Union and Wallowa Counties, having enhanced 911 services for dispatch of emergency response for fire, police, ambulance and other emergency services. The Lookingglass Hatchery and Innaha Satellite Facility are both outside of local, rural fire districts and dispatch of nearest available fire-fighting forces would be coordinated through the Northeast Oregon Interagency Fire Center near La Grande. Emergency fire services for the Lostine Adult Collection Facility, Lostine River Hatchery and the ~~Innaha Final Rearing Facility~~ Acrow Panel Bridge Site would be provided by the nearest Rural Fire District, or coordinated through the Interagency Fire Center if local forces were unable to respond.

On page 3-122 (fifth and sixth paragraphs):

The Proposed Action would permanently alter less than about 10 acres of land in the region by adding facilities, roads, pipelines and various impervious surfaces. The Proposed Action would result in the irretrievable loss of about ~~15,000 to 20,000~~ 14,000 to 21,000 square feet of existing wetlands at the Lostine River Hatchery and the Lostine Adult Collection Facility. These are irretrievable losses rather than irreversible since these wetlands could be restored in the future. Similarly, the Proposed Action would result in some initial irretrievable loss of habitat at each site. These are irretrievable losses rather than irreversible since most lost habitat would be restored over time through replanting and regrowth of vegetation.

The Proposed Action would result in a small amounts of land irretrievably lost to livestock grazing at the Lostine River Hatchery ~~and the Innaha Final Rearing Facility~~. This is an ~~These would be~~ irretrievable rather than irreversible losses because changes in management direction or the use of ~~facilities~~ this facility could allow livestock grazing in the future at ~~these~~ this sites.

On page 3-123 (second paragraph):

Similarly, the nature of hatchery operations often involves diversions of water from nearby rivers or streams. The Proposed Action's operations would require diversion of water from the Lostine and Innaha Rivers at the Lostine River Hatchery, ~~Innaha Final Rearing Facility~~, and Innaha Satellite Facility sites. Generally, these localized and temporary water diversions would have only minor impacts on river flows. The Proposed Action includes strategies to pump and replace diverted water at the Lostine River Hatchery under extremely low flow conditions. However, during extremely dry or cold periods the diversion could have adverse temporary impacts to flows and potentially to some individual fish in the diverted river reaches. These are adverse impacts that cannot be avoided.

## 2.4 Revisions to Chapter 4 of Draft EIS

On page 4-3 (seventh paragraph):

At the Lostine Adult Collection Facility, proposed clearing, grading and filling for the fish ladder, access driveway and parking area would cause a net loss of about ~~12,000 to 15,000~~ 11,000 to 16,000 square feet of wetlands. Long-term, indirect impacts may also occur as a result of potential changes to the hydrologic regime of the site due to levee construction and proposed french drains. These impacts are not currently quantifiable, but would involve changes to plant composition (resulting from changes to the wetland water supply).

On page 4-6, add new text.

### **4.7.8 Consultation and Coordination with Indian Tribal Governments**

Executive Order 13175 sets forth principles and criteria for federal agencies when formulating and implementing policies that have tribal implications, including respecting tribal self-government and sovereignty, and having processes to ensure meaningful and timely input by tribal officials. As the lead federal agency involved in this proposed project, BPA has routinely met with representatives of the NPT and CTUIR since project inception to assure that tribal treaty rights and interests were acknowledged, discussed, and incorporated into the project. This has been done primarily, through BPA and tribal

meetings and activities as NEOH co-managers. As co-managers, the NPT and CTUIR are leaders and decision-makers in setting project direction.

## 2.5 Revisions to Chapter 5 of Draft EIS

On page 5-2:

### **Reviewers**

Beasley, Chris. Fisheries Scientist/FishPro-HDR.

McMillen, Mort. Design Engineer/FishPro-HDR.

## 2.6 Revisions to Chapter 6 of Draft EIS

On pages 6-2 – 6-3:

Acrow Panel Bridge – A type (brand name) of bridge made of steel panels.

Co-managers – The Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, and the Oregon Department of Fish and Wildlife who, together, manage the spring/summer chinook conservation and recovery program in Northeast Oregon.

## 2.7 Revisions to Chapter 7 of Draft EIS

On pages 7-1 – 7-10:

Ashe, B. 2004. Nez Perce Tribe. Personal communication (electronic mail to Jan Mulder, Environmental Science Associates, dated June 14, 2004).

Beasley, C. 2004. Fisheries Scientist, FishPro, Inc. Personal communication (electronic mail to Mickey Carter, BPA, dated April 15, 2004).

Fish/Pro/HDR. 2004a. Northeast Oregon Hatchery Program – Grande Ronde-Imnaha Spring Chinook Hatchery Project Biological Assessment. May 2004.

FishPro/HDR. 2004b. Northeast Oregon Hatchery Project -- Step 2 Submittal Revised Preliminary Design Report. April 2004.

Grassel, S. 2003. WSRA Determination Summary for Imnaha and Lostine Facilities – NEOH Core Team Responses, November 17, 2003.

Grassel, S. 2004. Nez Perce Tribe. Personal communication (electronic mails to Jan Mulder, Environmental Science Associates, dated May 18, 2004).

- Hesse, R.A. and J.R. Harbeck. 2004. Monitoring and Evaluation Plan for Northeast Oregon Hatchery Imnaha and Grande Ronde Subbasin Spring Chinook Salmon -- Final Draft for ISRP Review. March, 2004.
- Kuck, T. 2003. Hydrologist, Baker Field Office, Bureau of Land Management. Personal communication (electronic mail to Jan Mulder, Environmental Science Associates, dated December 17, 2003).
- McMillen, M. 2003. Design Engineer, FishPro/HDR. Personal communication (electronic mail to Shaun Grassel, Nez Perce Tribe, dated July 31, 2003).
- McMillen, M. 2004. Design Engineer, FishPro/HDR. Personal communication (telephone conversation with Jan Mulder, Environmental Science Associates on May 17, 2004).
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- R2 Resources (R2 Resource Consultants). 1998. Lostine River Instream Flow Study Final Report. Prepared for the Nez Perce Tribe and the Oregon Department of Fish and Game. R2 Resource Consultants, Inc., Redmond, WA.
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- Sancovich, P. 2004. Fisheries Research Biologist, USFWS. Personal communication (conversation with Becky Holloway, Biologist, FishPro/HDR. on April 13, 2004).
- Vergari, C. 2004. Oregon Parks and Recreation Department. Personal communication (electronic mail to Jan Mulder, Environmental Science Associates, dated January 21, 2004).
- Zimmerman, B. 2004. CTUIR. Personal communication (electronic mail to and telephone conversation with Jan Mulder, Environmental Science Associates on May 18, 2004).
- Zollman, R. 2003. Aquaculture Manager, Nez Perce Tribe. Personal communication (electronic mail to Shaun Grassel, Nez Perce Tribe, dated September 12, 2003).