

MONITORING AND EVALUATION PROGRESS REPORT

Lower Snake River Compensation Plan  
Nez Perce Tribe Hatchery Evaluation Studies

Fiscal Year 2014

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## 2014 EVALUATION PROGRESS REPORT

### 1. Objectives

#### A. General

The NPT LSRCP Monitoring and Evaluations Project (LSRCP M&E) will coordinate LSRCP hatchery production planning and evaluations and provide information and recommendations for the Nez Perce Tribe Executive Committee (NPTEC). LSRCP M&E personnel will also attend coordination, marking and tagging and all other pertinent LSRCP meetings and activities with the states of Idaho, Oregon, and Washington and with the U.S. Fish and Wildlife Service. Work schedules will be coordinated with tribes, states and federal agencies to maximize cooperation in monitored streams in the Clearwater, Salmon, Grande Ronde, Imnaha and Tucannon Rivers within the Snake River basin in order to establish baseline data for determining the relative success and effects of releasing hatchery-reared fish in these streams.

The Northwest Power Planning Council's Artificial Production Review (NPPC 1999) recommends a comprehensive set of performance measures that should be monitored in all artificial propagation programs and will be used to guide independent reviews of artificial propagation programs. In addition to contributing to the co-management of the LSRCP program, the NPT LSRCP M&E project is structured to monitor and evaluate LSRCP hatchery production performance, natural production status and performance, genetic diversity. Monitoring activities will include adult escapement of both natural and hatchery origin Chinook salmon in several key spawning aggregates, pre-release sampling of LSRCP hatchery-produced fish, monitoring of life stage survival of naturally and hatchery produced fish, and identification of the genetic stock structure. Specific activities include; 1) the investigation of downstream emigrating Chinook salmon and steelhead in the Imnaha River; 2) monitor Chinook salmon spawning in the SFSR and; 3) monitoring of adult returns and juvenile emigration of Chinook salmon to the South Fork Salmon River (SFSR) using a flat panel PIT tag array. In addition, coordination of Chinook salmon and steelhead cryopreservation activities will continue at LSRCP hatchery facilities and in tributary streams in an effort to and maintain a germplasm repository for adult male salmon and steelhead gametes.

#### *Category 1. Fish Culture and Production Activities*

##### **Project 1a – Production Monitoring**

- Participate in planning processes through assisting in the development of Annual Operating Plans (AOPs) for the culture, ponding, rearing, and release of steelhead and Chinook salmon in all basins of the Snake River (Clearwater, Salmon, Grande Ronde and Lyons Ferry AOP).

Task 1.1 – Participate and in LSRCP Annual Operating Plans (AOP) in Northeast Oregon, Lyons Ferry, and Salmon Rivers and lead the AOP process in the Clearwater River.

*Completed*

### **Project 1b – Disease Monitoring, Prevention, and Treatment**

- No Monitoring and Evaluation Activities Planned

### **Project 1c – Optimum Production Strategies**

**Objective 1: Determine the emigration timing of hatchery reared spring/summer Chinook salmon and steelhead and estimate the post-release survival of hatchery reared Chinook salmon and steelhead smolts released in the Imnaha River.**

#### Approach:

NPT LSRCP M&E staff will assist with the operation and maintenance of the lower Imnaha River screw trap, mainly during peaks in outmigration during the spring and fall migration periods. Trapping activities are coordinated with the Smolt Monitoring Project (SMP) funded by Bonneville Power Administration with this project responsible for operating the trap on a year round basis. This collaborative project will monitor and evaluate LSRCP hatchery Chinook salmon released from the Gumboot Acclimation Facility and hatchery steelhead released from the Little Sheep Creek Acclimation Facility and estimate post-release survival from the release facilities to the trap located at river kilometer (rkm) 6.6. Post-release survival is estimated through use of passive integrated transponder (PIT) tagged smolts from the production release group at the Imnaha River Chinook smolt acclimation facilities, and applying the Survival Using Proportional Hazards (SURPH.2) model (Smith et al. 1994). Fish lengths and weights will also be collected to determine size and condition factors of emigrating fish. Weekly smolt trap catch information will be shared with the Fish Passage Center (FPC) and will be used to manage hydrosystem operations in near real-time. Given the assumption that fish captured at the trap continue to the Snake River and on through the hydrosystem, travel time and survival to Lower Granite Dam (LGR) will be also be estimated and compared to estimates from natural-origin fish captured at the screw trap.

Task 1.1 – Assist in the installation, maintenance and operation the rotary screw trap in the lower Imnaha River. Activities will be in coordination with the Smolt Monitoring Project (SMP – funded by Bonneville Power Administration).

*Completed*

Task 1.2 – Assist with the operation of the rotary screw trap to determine the relative timing of emigration. Generally LSRCP staff assists trapping activities from late February through mid June and again from early October through late November, representing the peak migration periods for juvenile Chinook salmon and steelhead.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 1.3 - Conduct trap efficiency trials for hatchery-reared Chinook salmon smolts (fin clips and PIT tags – 3,000 per year).

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 1.4 – Sub-sample fish to collect length, weight, and condition (health/physiology) information.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 1.5 - Compare the emigration timing of hatchery-reared and natural-origin Chinook salmon smolts.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 1.6 - Estimate the post-release survival of hatchery Chinook salmon and steelhead from the release point to the lower Imnaha River trap using PIT tag recoveries and the SURPH model. From this model the total estimated passage of hatchery Chinook salmon and steelhead will be determined along with an estimated post-release survival in the Imnaha River.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 1.7 - Share weekly Imnaha River natural- and hatchery-origin spring/summer Chinook salmon and steelhead smolt emigration catch information with the Fish Passage Center.

*Completed*

**Objective 1.2: Investigate the effect of water temperature and river discharge on emigration timing from the Imnaha River for natural- and hatchery-produced juvenile Chinook salmon and steelhead.**

Approach:

Monitor river stage and water temperature at the lower trap site. This information will be plotted against the number of natural and hatchery Chinook salmon and steelhead that move past the lower trap.

Task 1.2.1 - Monitor USGS staff gauge information.

*Completed*

Task 1.2.2 - Monitor daily water temperature with a constant recording thermograph at the lower Imnaha River emigrant trap site. Download thermographs on a regularly scheduled basis.

*Completed*

Task 1.2.3 - Examine relationships between smolt emigration/survival and stream temperature and river discharge.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

**Objective 2. Determine and compare the migration timing, travel time, emigration survival, and smolt-to-adult survival of natural-origin and hatchery-reared Chinook salmon and steelhead from the Imnaha River through the Snake River to Lower Granite Dam and to McNary Dam.**

Approach:

Natural Chinook salmon and steelhead will be PIT tagged throughout their emigration periods at the lower Imnaha River trap site. Trapping and tagging will describe smolt performance characteristics, describe the emigration timing, travel time and estimated survival at LGR, Little Goose and Lower Monumental Dams, estimate survival of spring emigrating fish from the mouth of the Imnaha River to Snake River and Columbia River dams and estimate Imnaha River juvenile emigrant abundance of Chinook salmon and steelhead. Tasks 1.1 and 1.2 are to continue a collection of time series information on arrival timing, travel time and estimated survival analysis at the dams (Ashe et al. 1995, Blenden et al. 1996, Blenden et al. 1997, Blenden et al. 1998, Cleary et al. 2000, 2002, 2003, 2004, Michaels et al. 2006, Michaels and Espinosa 2007) and to allow for survival estimation of weekly PIT tag release groups. If possible, weekly PIT tag release group sizes would be 1,200 natural-origin Chinook salmon smolts and 1,000 natural-origin steelhead smolts. Similar numbers of hatchery steelhead smolts will be tagged under a separate FPC-funded investigation comparing smolt performance characteristics of those two groups.

In addition to estimating smolt performance characteristics and estimating smolt survival to the various Snake River dams, we also propose to estimate the SAR of spring emigrating natural-origin Chinook salmon and steelhead smolts from the Imnaha River trap to LGR and LGR to LGR. Survival will be estimated by the Cormack, Jolly- Seber methodology, using the SURPH program (Smith et al. 1994). The data files for release groups will be created using the program CAPTHIST (Westhagen and Skalski 1997). Arrival timing, travel time, and survival result from the migratory behavior of the smolt and can be considered performance indices (Beckman et al. 1999). These data will be obtained by PIT tagging juvenile fish in the Imnaha River and retrieving mainstem dam interrogation data from PTAGIS (<http://www.ptagis.org/>). The tagging goal for natural Chinook salmon is 20,000 with spring and fall tag allotments based on past estimates of fall and spring emigration (Kucera and Blenden 1998). PIT tag goals of 5,600 natural Chinook salmon in the fall and 14,400 natural-origin Chinook salmon during the spring are necessary to maintain survival estimates to McNary Dam and to estimate SAR's of Imnaha

River natural Chinook salmon (Richard Townsend – University of Washington, personal communication). Based on previous experience the project generally tags 5,000 – 10,000 natural-origin Chinook salmon per season.

Project objectives are to tag 5,000 natural-origin steelhead smolts to collect survival information through the Snake River hydroelectric system to McNary Dam (if possible). Ideally, we would like to provide natural steelhead SAR information for the Imnaha River subpopulation. However, additional juvenile emigrant trapping facilities would be necessary to allow for representative sampling, abundance determination and PIT tagging adequate sample sizes.

Total Imnaha River natural-origin juvenile Chinook salmon and steelhead population abundance estimates will be determined using year-round trapping and weekly estimates of screw trap efficiencies. Trap efficiencies will be determined by releasing PIT tagged fish approximately 3.0 km above the screw trap. A daily goal of 50 natural-origin Chinook salmon and steelhead will be released upstream to estimate efficiency when available. Total PIT tags interrogated at the trap will be used to estimate the proportion of fish passing the trap that were captured each week and this will be expanded to provide a total population abundance estimate.

LSRCP staff will assist with tagging during the spring and fall periods of increased juvenile migration. Total PIT tags required is 25,000 if all mark groups are achieved. Uncertainty exists with the current trapping facilities and level of funding to achieve the desired sample size in all years. We are requesting 10,000 PIT tags in FY2014 and will plan on using carryover tags from the previous year and tags acquired for the BPA-funded Smolt Monitoring Project to meet desired tagging levels.

Task 2.1 - PIT tag up to 10,000 emigrating natural-origin Chinook salmon representatively across the entire emigration period. Total tag numbers are a combination of LSRCP and SMP tags, with 10,000 tags provided by LSRCP.

*Completed; preliminary estimates indicated that approximately 6,000 juvenile natural Chinook salmon were tagged during the winter/spring and fall tagging periods. Trapping during peak migration periods in the spring and fall did not capture enough fish to reach the total tagging goal. Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.2 - PIT tag 5,000 emigrating natural-origin steelhead representatively across the entire emigration period (emphasis given to spring smolts due to multiple age emigration behavior). All tags are proved by LSRCP.

*Completed; preliminary estimates indicated that approximately 5,000 juvenile natural steelhead were tagged during the winter/spring tagging period. Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.3 – Estimate screw trap efficiency - Daily release of 50 natural-origin Chinook salmon and 50 natural-origin steelhead approximately 3.0 km above the screw trap to estimate screw

trap efficiencies on a weekly basis. Results will be used to estimate juvenile population abundance in the Imnaha River for each species.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.4 - Estimate survival of natural- and hatchery-origin Chinook salmon and steelhead smolts, through use of the SURPH.2 model, to LGR and through the Snake River to McNary Dam (if possible).

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.5 - Interrogate previously PIT tagged hatchery-origin Chinook salmon smolts at the Imnaha River trap and use these fish as a release group to compare with natural-origin Chinook salmon smolts.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.6 - Determine the emigration timing, arrival time, travel time and estimated survival of emigrating natural- and hatchery-origin Chinook salmon and natural steelhead smolts from the Imnaha River to LGR and other Snake and Columbia River dams.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.7 - Statistically compare the variables under Task 1.6 for natural and hatchery steelhead smolts.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

Task 2.8 - Coordinate with the appropriate agencies to collect PIT tag passage data for both juvenile and adult life stages at LGR and other Snake and Columbia River dams.

*Completed*

Task 2.9 - Determine smolt-to-adult survival (SAR) rates from release to LGR and from LGR to LGR for natural-origin Chinook salmon and steelhead PIT tagged in the lower Imnaha River and for PIT tagged hatchery-origin Chinook salmon and steelhead groups released into the Imnaha River.

*Completed: Final numbers will be presented in the “2014 Imnaha River Juvenile Emigration Report”*

**Objective 3. Participate in the Dworshak Idaho Fishery Resource Office Hatchery Evaluation Team (HET).**

Dworshak hatchery raises Chinook that are critical to the LSRCP program and the Dworshak IFRO has developed a HET to facilitate transparent communication concerning the monitoring and evaluation operations at Dworshak Hatchery.

Task 3.1: Participate in the Dworshak IFRO HET to assist with the monitoring and evaluation of hatchery fish reared and released from Dworshak Hatchery.

*Completed*

***Category 2 – Estimating Adult Returns***

**Project 3a – Catch Accounting**

Task 1. Marking and Tagging:

- No Monitoring and Evaluation Activities Planned

Task 2. CWT Recovery and reading:

The Nez Perce Tribe processes adult CWT recoveries from Chinook salmon spawning ground carcass recovery efforts. NPT LSRCP efforts include recoveries from the SFSR below the LSRCP adult weir. All tags are extracted, read, and uploaded to the Regional Mark Processing Center (RMIS) database system.

Task 3. Fishery Catch Estimation and Sampling:

Approach:

Coordination, cooperation, and transparency are paramount when managing scarce resources. Starting in 2010 the Nez Perce Tribe, IDFG, and LSRCP teamed up to form the Snake Basin Coordination Group. This group is tasked with the efficiently communicating key components of shared fishery resources: preseason forecasting, in season run updates, harvest share calculations, broodstock acquisition and spawning, post season evaluations.

With the use of the software Gotomeeting and Gotowebinar the Tribe facilitates weekly conference calls to discuss and coordinate the items listed above. Groups that routinely participate on the call are: Idaho Department Fish and Game, Oregon Department Fish and Wildlife, Washington Department Fish and Wildlife, Confederated Tribes of the Umatilla Reservation, Shoshone Bannock Tribes, Idaho Power Company, Corps of Engineers, Fish and Wildlife Service, National Marine Fisheries, private consultants, and others.

Task 3.1: Facilitate and participate in Snake Basin Coordination to include pre and post season meetings, and weekly teleconference calls to discuss preseason forecasting, in season run

updates, harvest share calculations, broodstock acquisition and spawning, and post season evaluations.

*Completed*

### **Project 3b – Estimating Project Area Escapement**

#### **Objective 4. Assess adult Chinook salmon abundance and monitor trends in population status.**

##### Approach:

Enumeration of adult salmon escapement is a critical status metric (McElhany et al. 2000) that is best assessed by direct or census enumeration of adult escapement. In cases where this is not possible either physically or financially, redd counts are the preferred metric. Although redd counts do not provide an accurate or precise estimate of salmon abundance (Beamesderfer et al. 1998, Dunham et al. 2001, Faurot and Kucera 2003, Kucera et al, 2005, Kucera and Orme 2006), they do provide an index of relative abundance, provide trend information and spawner distribution data. In addition, biological information recovered from salmon carcass recoveries provides an estimate of adult spawner composition including, age structure, sex composition and hatchery/natural fraction. Analyzing age structure over complete brood years determines adult spawner to spawner ratios over time which measures productivity in the subpopulation on a temporal basis.

Chinook salmon spawning ground surveys will be conducted from late July to mid-September in the South Fork Salmon River (SFSR). Spawning ground surveys in the SFSR will assess the relative success of the McCall Fish Hatchery Chinook salmon program and to determine the status of wild spawning Chinook salmon population below the McCall Hatchery Weir. Carcass recoveries will enable the recovery of cwt's below the adult weir to determine the composition of natural- and hatchery-origin adult salmon reproducing in the in this area. Four index area stream reaches will be surveyed at least three times. Redds will be enumerated, live fish counted, and biological information will be collected from carcasses (Figure 2). This biological information will be examined along with that from salmon carcass recovery in Johnson Creek, Secesh River and Lake Creek to determine dispersion of McCall Hatchery reared adults in other South Fork Salmon River tributaries.

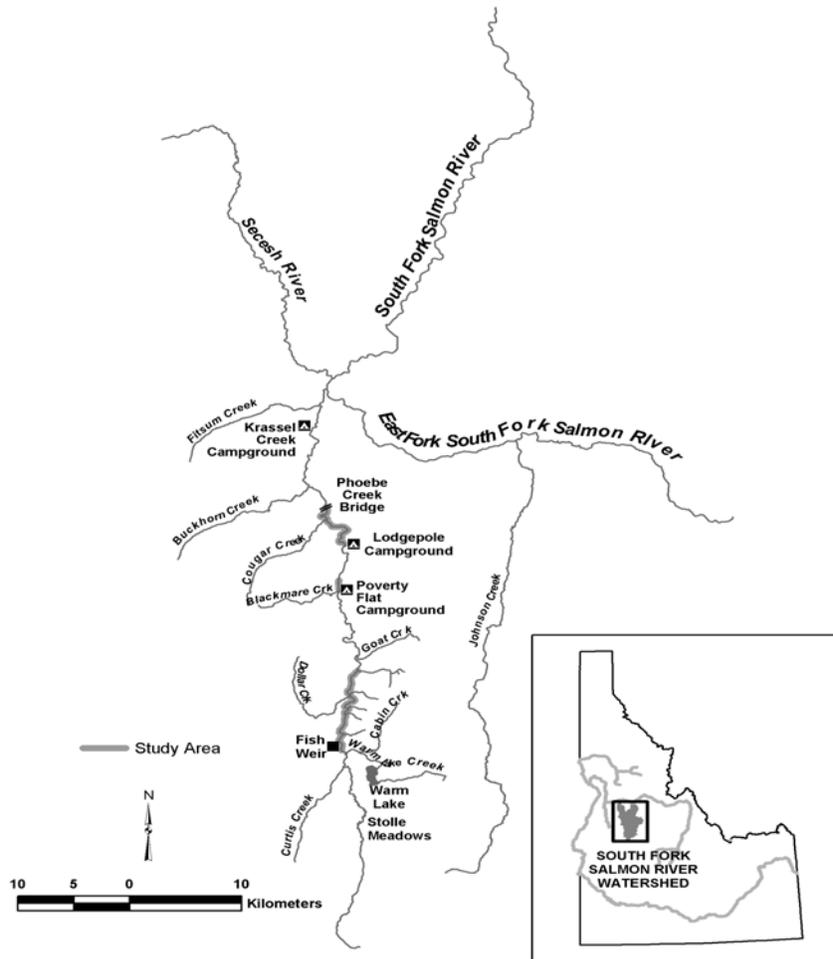


Figure 2. Stream sections (shaded in gray) in the South Fork Salmon River where multiple pass spawning/carcass surveys are conducted.

Excess adult Chinook salmon returning to the McCall Hatchery Weir (MHW) are outplanted to other locations within the SFSR basin, including locations in the upper SFSR below the weir and to the East Fork South Fork Salmon River (EFSFSR). Adult outplants to the SFSR are for harvest augmentation and to supplement natural spawning. Adult outplants to the EFSFSR are to augment natural spawning both above and below a heavily mined section in the upper sections of the watershed. The upper EFSFSR above the mined section is currently inaccessible to anadromous fish but was rehabilitated by the United States Forest Service (USFS) and contains high quality spawning habitat. LSRCP crews will lead the evaluation of Chinook salmon spawning ground surveys in the rehabilitated section and assist with spawning ground surveys below. This evaluation provides an assessment of spawner success in these regions as it relates to the success of the outplanting activities.

In 2008 a remote flat-panel PIT tag antennae array (identified as KRS) was installed in the SFSR to estimate passage of adult Chinook salmon into the SFSR. The array is located approximately

2.3 km upstream from the confluence with the East Fork South Fork Salmon River. PIT tagged fish passing over the array are detected and used as a release group in SURPH to estimate survival to the trap. This will provide a better estimate of the total number of LSRCP McCall Hatchery fish that escape to the SFSR and may provide better estimates of harvest and spawning below the weir. PIT tag detections of emigrating juvenile Chinook salmon will also be used to estimate survival from the release a Knox Bridge to the array and to Lower Granite Dam.

Task 4.1 - Conduct multiple-pass ground count Chinook salmon spawning ground surveys in the SFSR below the MHW (Figure 2). The stream reaches in the SFSR include: the MHW to Dime Creek (5.1 km), Dime Creek to the unnamed tributary 500 m above Roaring Creek (5.6 km), Poverty Flat (1.1 km), and Lodgepole Campground to Phoebe Creek (6.1 km).

*Completed: A preliminary total of 317 redds were counted in the lower mainstem SFSR including 41 in the WD section, 32 in the DC section, 131 in the PF section and 113 in the LP section. Final totals will be reported in the “2014 Nez Perce Tribe Adult Escapement Report”.*

Task 4.2 - Collect biological information from all adult Chinook salmon carcasses encountered on the South Fork Salmon River downstream of the MHW. Biological information collected from salmon carcasses will include measuring fork length, internal examination for sex and percent spawned, examination for marks, tags and fin clips, removal of snouts from coded-wire-tagged fish, and taking of scales or fin rays for age and growth analysis and age structure determination.

*Completed: Final data and analysis will be reported in the 2014 – 2018 South Fork Salmon River Spawning Ground Report”*

Task 4.3 - Determine hatchery:natural adult composition on the spawning grounds in the South Fork Salmon River below the MHW using known hatchery adipose fin clip marks and the presence of cwt’s.

*Completed: Final data and analysis will be reported in the “2014 Adult Escapement Report” and the 2014 – 2018 South Fork Salmon River Spawning Ground Report”*

Task 4.4 – Conduct multiple pass ground count surveys in the EFSFSR to assess the spawning success of McCall Hatchery adult outplants.

*Not Completed; Surplus adult Chinook salmon were not available for outplanting in 2014 due to an unexpected mass-mortality event at the McCall Hatchery Trap.*

Task 4.5 – Assist with the operation of the remote PIT tag array in the lower SFSR. The Integrated Status and Effectiveness Monitoring (ISEMP) Project will lead the operation and maintenance of the array and coordinate data transfers to the Ptagis website (<http://www.ptagis.org/>).

*Completed*

Task 4.6 - Calculate age structure and sex composition of the spawning population for application in determining adult spawner to spawner ratios by brood year.

*Completed: Final data and analysis will be reported in the “2014 Adult Escapement Report” and the 2014 – 2018 South Fork Salmon River Spawning Ground Report”*

Task 4.7 - Coordinate spawning ground survey information with other ongoing projects in the South Fork Salmon River to examine dispersion of McCall Hatchery reared Chinook salmon into other tributary streams.

*Completed*

Task 4.8 - Prepare reports summarizing adult salmon spawning ground surveys.

*Completed*

**Subobjective 4.2. Assist IDFG, USFWS and ODFW with ongoing LSRCP evaluation studies to achieve Nez Perce Tribe participation in the LSRCP program.**

Approach:

To achieve more tribal participation in the LSRCP program and foster positive interactions among co-manager personnel, the Nez Perce Tribe will work with the respective federal and state agency personnel at LSRCP hatchery facilities and with field activities. Assistance will be provided in the PIT tagging of hatchery reared Chinook salmon and steelhead trout as needed at DNFH, Kooskia Fish Hatchery, Lookingglass Fish Hatchery (LFH) and Irrigon Fish Hatchery. Staff will also participate in spawning ground surveys lead by other co-managing agencies.

Task 4.2.1 - Provide available staff to assist ODFW with Chinook salmon spawning ground surveys in Oregon on the Imnaha River, Big Sheep Creek and Lick Creek to evaluate the LSRCP stocking program, and in the Lostine River, Minam River, and Wenaha River. Snouts from coded-wire-tagged Chinook carcasses will be provided to ODFW for wire tag interrogation.

*Completed*

Task 4.2.2 - Coordinate and assist with marking efficiency evaluation for production release Chinook salmon at Lookingglass Fish Hatchery.

*Completed*

Task 4.2.3 - Coordinate and assist ODFW in PIT tagging of Imnaha River juvenile Chinook salmon at Lookingglass Fish Hatchery and juvenile steelhead at Irrigon Fish Hatchery and collection of biological information on Imnaha River juvenile Chinook salmon and Little Sheep Creek steelhead prior to release and adult returns to Oregon facilities if needed.

*Completed*

### **Project 3c – Smolt to Adult Survival**

Approach: Smolt-to-adult survival is calculated using PIT-tag recoveries through the Snake River dams and estimating adult run sizes utilizing the individual adult weir sites, and through adult run reconstruction efforts from spawning ground surveys (see Objectives 2 & 3).

#### *Category 3 – Legal Obligations*

#### **Objective 5. Coordinate Nez Perce Tribe evaluation studies with the National Marine Fisheries Service and U.S. Fish and Wildlife Service. Participate in planning activities associated anadromous fish production and management in the South Fork Salmon, Grande Ronde, and Imnaha river basins.**

Approach:

The NPT does not recognize that the Endangered Species Act takes precedence over or precludes Tribal sovereignty or rights in any manner. However, the Tribe does recognize that Chinook salmon, steelhead and bull trout are listed as threatened species, and strongly believes in coordination efforts to conserve, protect and recover populations at low levels of abundance and high risk of extirpation. In that regard the Columbia River Inter-Tribal Fish Commission maintains Section 10 permits, by and through the Bureau of Indian Affairs, coordinating Tribal activities relative to listed salmon and trout populations. The following activities are thus undertaken to coordinate with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act.

Task 5.1 – Participate and in LSRCP Annual Operating Plans (AOP) in Northeast Oregon, Lyons Ferry, and Salmon Rivers and lead the AOP process in the Clearwater River.

*Completed*

Task 5.2 - Provide technical assistance describing NPT LSRCP M&E studies for HGMPs through Section 4 or 10 permits.

*Completed*

Task 5.3 - Provide updated evaluation activities to modify Section 10 permits as necessary.

*Completed*

Task 5.4 - Provide annual reports to NOAA and the USFWS which summarize project activities relating to listed Chinook salmon, steelhead and bull trout subpopulations under the Endangered Species Act.

*Completed*

Task 5.5 – Participate in planning and implementation activities for developing population specific management and recovery plans for the Salmon, Grande Ronde, and Imnaha populations as specified in the Snake River spring/summer Chinook salmon recovery plan.

*Completed*

Task 5.6 – Participate in recovery planning by providing assistance as requested by ODFW, TRT, USFWS, and NOAA regarding status and limiting factors of spring/summer Chinook and steelhead populations.

*Completed*

Task 5.7 – Participate in coordination teams to account for all LSRCP fish that leave as juveniles and account for all fish returning as adults, to facilitate a review of the LSRCP program and provide recommendations for future management of the LSRCP program.

*Completed*

#### ***Category 4 – Electronic Database Systems***

**Objective 6. Develop electronic database system that will incorporate critical performance measure data that will be utilized in future recovery and planning efforts.**

##### Approach:

With requests from LSRCP to standardize, consolidate, and make readily assessable the NPT LSRCP data and results, a North Idaho Database Administrator position was funded by LSRCP and was located in the NPT Sweetwater DFRM office. However, as the FINS program has expanded LSRCP has determined that the funding of the North Idaho Database Administrator position will cease. This position is crucial to the success of accomplishing the larger LSRCP goals of data storage and security, standardization, summarization, and real time access and coordination of the LSRCP information. This position works closely with the Idaho Department of Fish & Game Data Administrator position (currently funded under LSRCP) to efficiently manage data using the existing HDMS database and FINS in the future. The DFRM research division did a cost analysis so that each NPT project will pay their share based on their percentage of the total budget. Utilizing this approach NPT included into this FY 2014 budget and additional \$36,500 (12.57% share) for LSRCP to provide towards the NPT database project. We recognize that this is a request for more funds however the Tribe currently has four staff members involved in the FINS user committee and their travel and salaries are currently being covered by non LSRCP funds.

This project acknowledges the need to share updated information on regionally accepted performance measures (ADSWG 2009), organized by the categories; abundance, survival-productivity, distribution, genetic, life history, habitat, and in-hatchery measures. The Tribe

intends on providing information for these measures immediately following field data collections and then central database updates. In the past, this project used annual report submissions to the BPA web site (<http://www.efw.bpa.gov/searchpublications/>) thus making project information publicly available. Annual reports are now also available on the Tribe's web site (<http://www.nezperce.org/~dfm/research>), which is currently undergoing changes to facilitate better information access and presentation.

The project also maintains an annual distribution list of managers, researchers, ICTRT members, and other recovery planners who receive hard copies of annual reports. The Department takes seriously the need to make primary data and metadata publically available. The end result of this project is the collection and storage of valuable data given society's monetary investment and the high level management questions to be answered. The data collection and storage will receive special attention due to the above two reasons.

In addition to annual progress reports posted to BPA website, the Nez Perce Tribe will utilize centralized region-wide databases that have been developed to unify data collection activities currently involving multiple agencies and departments. The information will be collected following the same functional procedures developed across all departments within the tribe. It will then be stored in a central database applying unique set of attributes. The Nez Perce Tribe website ([www.nezperce.org/~dfm/research](http://www.nezperce.org/~dfm/research)) will link to stream data from a relational database for primary data, description of meta-data, various data summaries, and annual reports related to all projects. The department is currently working towards making this information available through the Tribe's website. The two stages of data dissemination will be the availability to download raw (not summarized) field collected data and summarized performance measures across single or multiple years.

Appropriate components of program data and results will also be provided to the following websites: The tribe is a partner on the Snake Basin Hatchery working group that currently houses much of the Tribe's adult trapping data ([Snake Basin Hatchery Data](#)); Pacific States Marine Fisheries Commission (PSMFC), including: PIT Tag Information System (PTAGIS), and the Regional Mark Information System (RMIS); StreamNet, and Northwest Environmental Data Network (NED; when functional); the Tribe currently is coordinating with the Columbia River Inter Tribal Fish Commission who is funded through the Accords to centralize and standardize all tribal data.

Task 6.1 - Design field data collection databases according to protocols established by the Research Division Technical Teams.

*Completed*

Task 6.2 - Coordinate and maintain databases so they are accessible to all NPT division employees.

*Completed*

Task 6.3 – Provide pertinent products to the larger LSRCF program as completed.

*Completed*

***Category 5 – Peer Review, Biometric Review, Analysis and Reporting***

**Objective 7. Reporting of summarized results of completed objectives.**

Task 7.1 – Submit following annual reports:

Title	Period Covered	Final Report Date	Status <sup>1</sup>
Nez Perce Tribe – 2013 Salmonid Gamete Preservation Project-Annual Report	2012	June 30, 2014	<i>Completed</i>
Nez Perce Tribe – 2010 Juvenile Imnaha River Annual Report	2010 - 2011	July 30, 2014	<i>Completed</i>
Nez Perce Tribe – 2011 - 2013 Juvenile Imnaha River Annual Report	2011-2013	November 30, 2014	<i>Currently in draft form</i>
Nez Perce Tribe – 2001-2007 Adult steelhead activities in the Imnaha River Basin.	2001-2007	June 30, 2014	<i>No longer required</i>

<sup>1</sup>The “2013 Salmonid Gamete Preservation Project- Annual Report” and the “2010 Juvenile Imnaha River Annual Report” were completed and submitted to LSRCP. The “2011 - 2013 Juvenile Imnaha River Annual Report” was delayed because the lead author left the position prior to completion and the position has yet to be re-filled. We are currently advertising for that position but the vacancy will delay submission. Submission of the “2001-2007 Adult steelhead activities in the Imnaha River Basin” report is no longer necessary to fulfill the reporting aspect of the Imnaha River adult steelhead monitoring activities. The information contained in the report was identical to a report written and submitted as part of the LSRCP steelhead program review. An email from Steve Yundt dated 7/11/14 indicated that he will accept the Imnaha adult steelhead review report in lieu of the report listed here.

***Category 6 – Participation in External Forums***

- No Monitoring and Evaluation Activities Planned