Lower Snake River Compensation Plan FY2017 Performance Report
Idaho Department of Fish and Game – Clearwater Fish Hatchery (CFH)
Species: B-Run Summer Steelhead, Spring Chinook, Summer Chinook

Objective 1: Manage all operations and maintenance at the Clearwater Fish Hatchery, the Powell, the Red River and the Lower Crooked River Satellite facilities, to achieve LSRCP goals. This also includes overseeing spending, all fish marking, fish transportation, and fish health activities associated with this program.

Report:
A. Provided administrative oversight, developed and managed budgets, and met reporting requirements. This included overseeing spending, fish marking, fish transportation and fish health activities associated with this program.
B. Adult Trapping and Broodstock Development
   1. The LSRCP goals for the Clearwater Fish Hatchery are to return 14,000 adult steelhead and 12,000 adult (spring/summer) Chinook Salmon above Lower Granite Dam annually. In addition to managing the Clearwater Fish Hatchery, the staff also oversees operations at three satellite facilities, the Powell, the Red River and the Lower Crooked River Satellite facilities.
      a. Pertinent physical and biological data associated with all aspects of program operations were collected. Program operations are detailed in Clearwater River Annual Operating Plan (AOP).
   2. Steelhead
      a. The broodstock goal for B-run steelhead is 386 (193 males, 193 females) adults collected by anglers on the South Fork of the Clearwater and backfilled with broodstock from Dworshak National Fish Hatchery (DNFH) if needed.
         i. A total of 522 (511 HO, and 11 NO) adult B-run steelhead were collected on the South Fork of the Clearwater in 2017 by fisherman. A portion of these fish were collected to fulfill localized steelhead programs at DNFH.
         ii. All broodstock was collected by the localized broodstock program and no DNFH fish were needed.
   3. Spring Chinook Salmon
      a. The broodstock goal for spring Chinook Salmon is 2,244 adults.
         i. A total of 1,572 Chinook Salmon were trapped in 2017 (1542 HO, and 30 NO). 186 HO came from seining efforts below Red River weir and 211 came from anglers on the North Fork Clearwater. Remaining broodstock needs were fulfilled by trapping at DNFH and Kooskia National Fish Hatchery (KNFH).
   4. Summer Chinook Salmon
      a. The broodstock goal for summer Chinook Salmon is 462 adults.
         i. A total of 993 summer Chinook Salmon were trapped in 2017 (969 HO and 24NO).

C. Spawning
1. Pertinent physical and biological data associated with all aspects of program operations were collected. Program operations are detailed in the Clearwater River Annual Operating Plan (AOP).

2. **Steelhead**
   a. The smolt release target is 843,000 Clearwater localized B-run steelhead with a green egg collection target of 1,239,706 and a broodstock of 386 adults collected by fisherman.
      i. A total of 251 B-run steelhead females were spawned in 2017 at DNFH for CFH producing 1,437,035 green eggs.

3. **Spring Chinook Salmon**
   a. The smolt release target is 3,109,000 million spring Chinook Salmon with a green egg collection target of 4,249,450 and a broodstock target of 2,244 adults.
      i. A total of 1,082 (499 South Fork Clearwater stock, 460 Kooskia/Dworshak stock, and green eggs from 123 Kooskia stock) spring Chinook females contributed in 2017 for the Clearwater program producing 3,919,626 green eggs. Eggs from 87 females were culled due to high BKD (45) or due to double trayed females (42).

4. **Summer Chinook Salmon**
   a. The smolt release target is 640,000 summer Chinook Salmon with a green egg collection target of 874,869 and a broodstock target of 462 adults.
      i. A total of 222 summer Chinook Salmon females were spawned in 2017 producing 861,276 green eggs. There was 5 cull dues to high BKD and 3 culled for poor egg quality.

D. Incubation and Rearing

1. **Steelhead**
   a. Incubated and reared steelhead eggs and fish to appropriate lot levels.
   b. Collected and recorded appropriate physical and biological data during incubation and rearing.
      i. Brood Year 2016 steelhead survival from eyed egg to stocking was 82.8%. A total of 155,658 pounds of feed was fed for a weight gain of 197,341 resulting in a feed conversion of 0.79. The final entire hatchery average rearing densities were 0.3 D.I.
      ii. Brood Year 2017 steelhead number on hand is 907,139 presmolts at 9.3 fpp. This group of fish will winter in twelve large outside raceways. Smolts will be released in the spring of 2018 at Red House, Meadow Creek and Newsome Creek.

2. **Spring Chinook Salmon**
   a. Incubated and reared spring Chinook Salmon eggs and fish at appropriate lot levels.
   b. Collected and recorded appropriate physical and biological data during incubation and rearing.
      i. Brood Year 2015 spring Chinook Salmon survival from eyed egg to stocking was 97.2%. A total of 160,258 pounds of feed
was fed for a weight gain of 181,498 resulting in a feed conversion of 0.88. The final entire hatchery average rearing densities were under 0.3 D.I.

ii. Brood Year 2016 spring Chinook Salmon number on hand at the end of November is 3,091,335 presmolts at 22.7 fpp. This group of fish will winter in banks A through D. Smolts will be released in the spring of 2018 at Red River, Clear Creek, Selway, and North Fork Clearwater.

iii. Brood Year 2017 spring Chinook Salmon number on hand is 2,972,849 swim-up fry. This group of fish will winter in 48 indoor vats until spring of 2018 when they will be moved to outdoor rearing. Smolts will be released in the spring of 2019.

3. **Summer Chinook Salmon**
   a. Incubated from eyed-egg, reared summer Chinook Salmon eggs and fish at appropriate lot levels.
   b. Collected and recorded appropriate physical and biological data during incubation and rearing.
      i. Brood Year 2015 summer Chinook Salmon survival from eyed egg to stocking was 97.2%. A total of 42,057 pounds of feed was fed for a weight gain of 48,462 resulting in a feed conversion of 0.87. The final entire hatchery average rearing densities were under 0.3 D.I.
      ii. Brood Year 2016 summer Chinook Salmon number on hand at the end of November is 674,956 presmolts at 23.3 fpp. This group of fish will winter in the C and D banks. Smolts will be released in the spring of 2018 at Powell.
      iii. Brood Year 2017 summer Chinook Salmon number on hand is 635,543 swim-up fry. This group of fish will winter in 10 indoor vats until spring of 2018 when they will be moved to outdoor rearing. Smolts will be released in the spring of 2019.

E. Juvenile Fish Releases
   1. **Steelhead**
      a. Annual release plans
         i. Distribution of Brood Year 2016 B run Steelhead occurred on April 3, 2017 and was completed on April 14, 2017. A total of 980,683 smolts were released at 3 different sites: 596,943 localized stock at Meadow Creek, 145,264 at Newsome Creek and 238,476 at Red House hole on the South Fork of the Clearwater.
         ii. All fish hauling was done by Clearwater staff, Fish and Game staff from other stations and 2 contract drivers that drove CFH transport trucks.

2. **Spring Chinook Salmon**
a. Annual release plans.
   i. Distribution of Brood Year 2015 spring Chinook Salmon occurred on March 13, 2017 and was completed on April 7, 2017. A total of 2,930,924 smolts were released at four different sites: 768,234 at Clear Creek, 483,895 at Lower Selway, 1,289,680 at Red River, and 389,115 in the North Fork Clearwater.

b. Fish loading and hauling information.
   i. All fish hauling was done by Clearwater staff, Fish and Game staff from other stations and 2 contract drivers that drove CFH transport trucks.

3. Summer Chinook Salmon
   a. Annual release plans
      i. Distribution of Brood Year 2015 summer Chinook Salmon to Powell occurred on March 13-15, and to Selway on April 7 2017. A total of 771,913 smolts were released at two different sites: 616,717 at Powell, 155,196 at Lower Selway.
      ii. All fish hauling was done by Clearwater staff, Fish and Game staff from other stations and 2 contract drivers that drove CFH transport trucks.

Objective 2: Develop the facility annual operating budget, to be submitted to the LSRCP office by June 15. The FY2017 proposed operating budget was $1,749,864 (excluding fish feed and utilities paid directly by LSRCP office). A separate maintenance and equipment needs list will be submitted with the annual operating budget. Major maintenance and improvement projects will be coordinated with the LSRCP office.

Report:
   A. The Annual Operating Budget was submitted to IDFG Headquarters office prior to June 15.
   B. A capital improvement project list was submitted along with the budget.
   C. All major maintenance and improvement projects were coordinated with the LSRCP office.

1. Residence 1 work performed repair threshold and install new weather stripping. New kitchen sink installed
2. Residence 2 lawn sprinklers and controls installed. Repair power line to outbuilding. Repair old drain field line.
4. Residence 5 Install new dishwasher. Repair and adjust garage door test for operation. Test and replace GFIC receptacles in garage.


7. Sanitation station repair heater and adjust igniter test for operation.

8. Cold storage repair shelves replace light fixture

9. Total flow pond new flowmeter installed

10. FCC installed new winterization valves for eyewash station

11. Chinook bank replace/repair make up valve. Pressure wash race ways. New alarm system installed along with ponds 1-4

12. Hatchery building new doors and lock hardware installed feeder controls repaired and updated HMI installed. Sewer line cleared and cleaned. 25 Florescent light fixtures replaced as well 20 ballast have been changed. Roof drains have been cleared of debris. Large roll up door was repaired and adjusted. 12 GFI receptacles were changed. Fabricate 60 each screens for extending vats in hatchery building. Replace receptacle for freezer defrost and repair drain line.

13. Administration building, Windows in office’s front and back were trimmed in oak and stained to match. Skylight originally installed in a valley of the roof line was problematic at best, was removed and roof repaired. New counter tops were installed in the dorm kitchen with new sink and garbage disposal. Repair artifact case. Remove existing groundcover grade and recover with red lava rock.

14. Steelhead raceways. Repair breach on raceway wall. Pressure wash raceways repair expansion joints as needed. Repair /replace drive track as needed approx. 40 feet. steelhead bridge north replace wheels and bearing 10 each. Replace power collector shoes and service duct o bar as needed. Fabricate new collector mounting hanger to lower the spring tension on the duct o bar. South Steelhead Bridge replace 8 wheels and Bearings. Replaced two stop switches, and 3 directional switches.

15. Red shed, install step down transformer at feed towers. Trench 35 feet across road to drop in two inch electrical conduit to supply 200 amp service at the red shed. This is intended for lights and to power a garage door that has been installed.


17. Truck fill station. Replaced 6 inch ball valve, and water line to fill tower.

18. Primary intake screen cleaning done service and inspect floating platform winch.

19. This list of projects does not include regular monthly or annual maintenance, of the hatchery properties or equipment used on the hatchery repairs, maintenance of our fleet of transport trucks, pressure washers, Wacker pumps, or other equipment used on the hatchery.
Objective 3: Develop an annual facility Statement of Work, to be submitted to LSRCP office by June 15.


Objective 4: Conduct annual safety inspections and submit findings to the LSRCP office by August 1.

Report:
A. Clearwater Fish Hatchery received a State Safety Inspection on July 26, 2017. A report was sent to LSRCP and Division of Building and Safety on July 28, 2017. All deficiencies noted have been repaired.
B. Red River Satellite Facility received a State Safety Inspection on July 25, 2017. A report was sent to LSRCP and Division of Building and Safety on July 28, 2017. All deficiencies noted have been repaired.
C. Lower Crooked River Satellite Facility received a State Safety Inspection on July 25, 2017. A report was sent to LSRCP and Division of Building and Safety on July 28, 2017. All deficiencies noted have been repaired. Inspections were not done by the August 1 deadline due to availability of State Inspector.
D. Powell Satellite Facility received a State Safety Inspection on July 26, 2017. A report was sent to LSRCP and Division of Building and Safety on July 28, 2017. All deficiencies noted have been repaired. Inspections were not done by the August 1 deadline due to availability of State Inspector.

Objective 5: Conduct annual facility condition assessments and submit findings to the LSRCP by August 1.

Report: A condition assessment was completed by LSRCP, from August 7 to August 10 at the hatchery and all satellites.

Objective 6: Conduct annual real property and personal property inventories; coordinate with LSRCP personnel.

Report:
A. Verified personal property inventory with Chris Starr on August 8, 2017.
B. IDFG Annual Inventory submitted to the Bureau on January 6, 2017.
C. IDFG Fiscal Year End Inventory was submitted to the Bureau on June 28, 2017.

Objective 7: Contribute to the development of the Clearwater Basin AOP.

Report: Fish Hatchery Managers attended the Clearwater Basin AOP meeting on January 31, 2017. All CFH data was entered into the CFH AOP document on Google Docs in a timely manner.
**Objective 8:** Provide monthly fish inventory data to the LSRCP office by the 7th of each month.

Report: All monthly LSRCP reports were submitted to the LSRCP office by the 7th of each month during the fiscal year until notified by LSRCP that it was no longer needed.

**Objective 9:** Provide a written facility annual report to the LSRCP office, including the standardized LSRCP production tables to the LSRCP office by December 31. A progress summary of all ongoing hatchery research projects will be included in this report.

Report:

A. This annual report was submitted prior to December 31.

B. LSRCP Standardized Production Tables

**Steelhead (S.F Clearwater B-run Stock):**

- Adult Return Goal: 14,000
- Smolt Release Target: 843,000
- Egg Collection Target: 1,239,706
- Broodstock Target: 193 pair

**Spring Chinook Salmon**

- Adult Return Goal: 12,000
- Smolt Release Target: 3,109,000
- Egg Collection Target: 4,249,450
- Broodstock Target: 1,122 pair

**Summer Chinook Salmon**

- Smolt Release Target: 640,000
- Egg Collection Target: 874,869
- Broodstock Target: 231 pair

C. Report of ongoing hatchery research projects

1. Continue evaluating how raceway baffles increase the intensity and variability of flow throughout the raceway and the effect on smolt to adult returns has been started in the adult holding ponds. This is the second year of a multi-year study.