Lower Snake River Compensation Plan FY2017 Performance Report
Idaho Department of Fish and Game - Sawtooth Fish Hatchery
Species: A-Run/B-Run Summer Steelhead Trout and Spring Chinook Salmon

Objective 1: Manage all operations and maintenance at the Sawtooth Fish Hatchery and the East Fork Satellite facility, 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 SFH are to return 13,600 adult Steelhead Trout and 19,945 adult (spring/summer) Chinook Salmon above Lower Granite Dam annually. In addition to managing SFH the staff also oversees operations at one satellite facility, East Fork Salmon River, to achieve the LSRCP goals.
      a. Pertinent physical and biological data associated with all aspects of program operations were collected. Program operations are detailed in the Salmon River Basin Annual Operating Plan.
   2. **Steelhead Trout**
      a. The broodstock goal for A-run Steelhead Trout is 894 adults at SFH and 28 natural pairs at the East Fork.
         i. In 2017, there were 1,955 adult Steelhead Trout trapped at the SFH weir [(1,933 Hatchery Origin (HO) and 22 Natural Origin (NO)].
         ii. In 2017, there were 178 adult Steelhead Trout trapped at the East Fork weir (152 HO, 26 NO and 1 stray).
   3. **Chinook Salmon**
      a. The broodstock goal for spring Chinook Salmon is 1,076 adults.
         i. In 2017, there were 2,055 Chinook Salmon trapped [1,847 HO, 140 Integrated Origin (IO) and 68 NO].
C. Spawning
   1. Pertinent physical and biological data associated with all aspects of program operations were collected. Program operations are detailed in the Salmon River Basin Annual Operating Plan.
   2. **Steelhead Trout**
      a. The egg collection target for the SFH A-run Steelhead Trout is up to 2,233,308 with a broodstock goal of 894 adults.
         i. In 2017, there were 444 A-run Steelhead Trout females spawned at SFH producing 2,713,840 green eggs.
      b. The East Fork natural stock egg collection target was 85,217 green eggs with a broodstock target of 14 NO females and 14 NO males.
         i. In 2017, there were 11 NO females spawned with 16 HO males and 5 NO males producing 71,805 green eggs.
      c. Sawtooth also incubated to eye up 932,587 green eggs from Pahsimeroi Fish Hatchery (PFH) that yielded 822,403 eyed eggs, of which 170,546 were shipped
to Magic Valley Fish Hatchery (MVFH) and 639,725 were shipped to the Shoshone Bannock Tribe Egg Box Program.

3. Chinook Salmon
   a. The smolt release target is 2,000,000 spring Chinook Salmon with a green egg collection target of 2,522,866 and a broodstock target of 1,048 adults.
      i. In 2017, there were 335 spring Chinook Salmon females spawned for the SFH program producing 1,446,542 green eggs. Eggs from 5 females were culled due to high Bacterial Kidney Disease (BKD).

D. Incubation and Rearing
1. Steelhead Trout
   a. Incubate to eye up A and B-run Steelhead Trout eggs and ship to their designated hatchery; Hagerman National Fish Hatchery (HNFH) and MVFH.
      i. In 2017, SFH produced 2,527,045 Sawtooth stock eyed eggs for a 93.1% eye up. SFH shipped 1,653,231 Sawtooth stock eyed eggs to HNFH and 330,065 to MVFH.
      ii. In 2017, the Pahsimeroi A-run stock eggs yielded 822,403 eyed eggs for a 88.2% eye-up. Sawtooth shipped 170,546 PFH stock eyed eggs to MVFH. Sawtooth also shipped 639,725 PFH stock eyed eggs to the Shoshone Bannock Tribe Egg Box Program.
      iii. In 2017, SFH shipped 63,347 East Fork stock eyed eggs to HNFH.
   b. Collected and recorded appropriate physical and biological data during incubation and transfers.

2. 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 92.5%. A total of 81,669 pounds of feed was fed for a weight gain of 83,348 pounds resulting in a feed conversion of 0.98. The final hatchery rearing densities ranged from 0.24 to 0.37 and averaged 0.28 Density Index (D.I).
      ii. Brood Year 2016 spring Chinook Salmon number on hand is 2,386,338 presmolt at 22.3 fpp. This group of fish will overwinter in fourteen large outside raceways. Smolts will be released in the spring of 2018 at the Sawtooth Weir, 14 river-miles above the Sawtooth Weir, and at the Yankee Fork River.
      iii. Brood Year 2017 spring Chinook Salmon number of females spawned was 335. There were 5 females culled due to high BKD, resulting in 330 females that produced 1,446,542 green eggs. The eyed egg number totaled 1,288,330 with a 89.1% eye up rate.
   c. Addressed objectives for Shoshone Bannock Tribe programs and worked cooperatively.

E. Juvenile Fish Releases
1. Chinook Salmon
   a. Annual release plans.
i. Distribution of most Brood Year 2015 spring Chinook Salmon segregated and integrated smolts occurred on March 29th, 2017. A total of 1,112,295 segregated smolts were direct released at the Sawtooth weir. Half of the 118,624 integrated smolts were direct released at the Sawtooth weir and the other half was transported and released 14 river-miles upstream of the Sawtooth weir. On April 18-19, 2017, a total of 188,280 SFH stock Chinook salmon smolt were transported by Neil Ring Trucking and released into the Yankee Fork River. On April 19-20, 2017, a total of 118,163 PFH stock Chinook salmon smolts were transported by Neil Ring Trucking and released at the Pahsimeroi River.

b. Fish loading and hauling information.
i. Fish hauling services for the releases to the Yankee Fork River and Pahsimeroi River were contracted through Neil Ring Trucking. No unusual mortality events were observed during fish hauling. Hauling of the segregated smolts 14 river-miles above the Sawtooth weir was conducted by SFH staff with SFH hauling truck. No unusual mortality events were observed during fish hauling.

Objective 2: Develop the facility annual operating budget; to be submitted to the LSRCP office by June 15. The FY2017 proposed operating budget is $712,872 (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, 2017.
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. Facility and Equipment Maintenance, Repair, Replacement. During the year the following projects were completed:
      a. The construction of a new shade cover structure over the small raceways was completed.
      b. Shading slats were added to the chain-link fence around the new shade cover building.
      c. The kitchen in hatchery residences 1,2,3, and 4 were renovated.
      d. The chimneys of all the residences were cleaned.
      e. The East Fork’s shop garage door was replaced.
      f. The crowder screens in the adult raceways were repaired or replaced.
      g. Weir panel were repaired.
      h. A low-flow alarm was replaced on the adult-pond intake pipe at the East Fork facility.
      i. A Simplex technician fixed the low-water alarm on well 5.
      j. The furnace in the hatchery office area was repaired.
      k. An interstitial leak detection and audible overfill device were installed on our out-of-ground diesel tank as requested in the 2016 USFWS Environmental
Compliance Audit Report.

1. Walkways were installed on the center-walls of the large raceways.
m. Control Box 2 alarm wiring was replaced.

n. A platform was fabricated to make access easier to the headbox screens.
o. Three new benches were fabricated and installed at the Kid’s Pond.
p. Fencing was fabricated and installed at the head of the large raceways.

q. A new truck-fill pump for river water was installed in the headbox and piping was repaired.
r. Wickam Construction dredged the intake bay to prepare for the winter season.
s. A log jam on the East Fork facility’s radial gates was cleared by Wickam Construction. Sediment was also removed from the intake area.
t. A tankless water heater was installed in the spawn shed.
u. One of the four pressure tanks on the potable water system for the hatchery and residences was replaced.
v. Installed a temperature alarm in the headbox room where formalin is stored.
w. Repaired the shop garage door.
x. Purchased a new CASE Skid Steer loader for winter snow removal.

Objective 3: Develop an annual facility Statement of Work, to be submitted to the LSRCP office by June 15.


Objective 4: Conduct annual safety inspections and submit findings to the LSRCP office by August 1 (checklist to be provided by LSRCP).

Report:
A. A NOAA Compliance Inspection of Sawtooth Fish Hatchery and East Fork facility was conducted on October 3rd and 4th, 2016 by McMillen Jacobs Company.

B. William Spoerer, Environmental Compliance Branch Chief from the USFWS, conducted an environmental compliance audit at Sawtooth Fish Hatchery on October 6th, 2016, to assess compliance status with respect to Federal, State, and local environmental regulations and to identify and track solutions to any problems. All reported findings were addressed and corrected.

C. An inspection of the Sawtooth Fish Hatchery fire and smoke detectors and alarm system was conducted on November 16th, 2016, by TYCO Simplex Grinnell. All fire and smoke detectors were cleaned or replaced.

D. Simplex-Grinnell repaired the fire alarm system and inspected fire extinguishers in May 2017.

E. Idaho Division of Building Safety conducted an inspection of the East Fork Facility in May 2017 and all reported findings were addressed and corrected.

F. Idaho Division of Building Safety conducted an inspection of the Sawtooth Fish Hatchery in August 2017 and no unsafe or hazardous conditions were noted.

G. Chester Plumbing inspected the backflow valve on the potable water system in September.
Objective 5: Conduct annual facility condition assessments and submit findings to the LSRCP office by August 1 (checklist to be provided by LSRCP).

Report: A Comprehensive Condition Assessment of the Sawtooth Fish Hatchery and of the East Fork Satellite Facility was conducted by Mark Ahrens of the USFWS in August 2017.

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

Report: 
A. LSRCP annual property inventory for vehicles and equipment at the Sawtooth Fish Hatchery was conducted by Anna Ray in September 2017.
B. IDFG Annual Inventory submitted to the Fisheries Bureau by January 2017.
C. IDFG Fiscal Year End Inventory was submitted to the Fisheries Bureau on June 29, 2017.

Objective 7: Contribute to the development of the Salmon River Basin AOP.

Report: Fish Hatchery personnel attended the Salmon River AOP meeting on February 15, 2017. All SFH data was entered into the Salmon River 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: LSRCP monthly fish inventory reports were submitted to the LSRCP office by the 7th of each month until we were instructed to no longer send those reports, in June 2017.

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

Report: 
A. This annual report was submitted prior to December 31, 2017.
B. LSRCP Standardized Production Tables

**Spring / Summer Chinook Salmon (Upper Salmon River Stock):**

- Adult Return Goal: 19,945
- Smolt Release Target: 2,000,000
- Egg Collection Target: 2,522,866
- Broodstock Target: 1,048

**Steelhead (Sawtooth A-run Stock; HNFH and MVFH reared):**
Adult Return Goal: 13,600  
Smolt Release Target: 1,779,000 at weir  
Egg Collection Target: 2,233,308  
Broodstock Target: 894  

**Steelhead (East Fork Natural Stock; Hagerman NFH reared):**

Adult Return Goal: None  
Smolt Release Target: 60,000  
Egg Collection Target: 85,217  
Broodstock Target: 28