MEMORANDUM

TO: Fish Passage Center Oversight Board
   Randy Fisher, PSMFC

FROM: Michele DeHart

DATE: October 30, 2014

RE: Quarterly Fish Passage Center Report for July – September 2014

Following is the Quarterly Report for the Fish Passage Center (FPC) for the third quarter of 2014. This report follows the format and content agreed upon by the Fish Passage Center Oversight Board.

**PISCES System Work Elements**

**Produce Environmental Compliance Documentation**

During the third quarter of 2014 the FPC monitored the daily sampling, handling, and tagging taking place for the 2014 Smolt Monitoring Program (SMP) and the Comparative Survival Study (CSS) to assure compliance with conditions established in the NOAA Letter of Determination for sampling, marking, and handling for the SMP and the CSS.

**Provide Technical Review**

FPC staff facilitated FPAC conference calls once a week throughout the quarter and attended monthly meetings of FPAC through the quarter. FPC provided technical support to facilitate FPAC discussions as requested by the FPAC members, and provided technical assistance to FPAC for the 2014 in-season management of juvenile salmonid migration. In addition FPC provided technical support to the U.S. Army Corps of Engineers’ Fish Passage Operation and Maintenance Committee by attending meetings during the quarter. FPC staff provided technical support to the fishery agencies and tribes’ representatives on the SRWG by providing technical review of proposals and reports as requested.
Analyze/Interpret Data

The FPC devoted the majority of staff time in the second quarter of 2014 to preparing and summarizing data sets, graphics, and text for the Draft Comparative Survival Study Annual Report for 2014. The Draft Comparative Survival Study Annual Report for 2014 was completed and posted on the FPC website for a 45 day public review process beginning on August 31 and ending on October 15. In addition the Final Fish Passage Center Annual Report for the Smolt Monitoring Program for 2013 was completed and posted on the FPC website on August 29, 2014. During the third quarter of 2014, the FPC responded to 12 requests for data compilations and summaries, 5 of those requests required analyses. These were completed in memorandum form and posted on the FPC web site. Those responses are listed below:

1. *Summary of Smolt-to-Adult Return rates* distributed through the FPC web site - September 15, 2014
2. *Analyses of proposed Ice Harbor operations*, FPC memorandum 110-14 - September 12, 2014
5. *AFEP Proposals Submitted to SRWG* - August 5, 2014

Develop RME Methods and Designs

The FPC staff prepared a memorandum report to the fishery managers, summarizing the SMP monitoring design and specifics of data collection at each monitoring site. FPC staff provided technical assistance to the fishery agencies and tribal FPAC members in consideration of the SMP and future SMP designs that could reduce fish handling and provide the data necessary to managers. The FPC, working with the CSS Oversight Committee, developed a plan to modify the SMP and CSS smolt trapping and marking operations to reduce fish handling, and improve marking coverage of wild steelhead and chinook for 2015 in the Clearwater and Snake River tributaries to support data collection at the MPG level. In addition the FPC and IDFG together developed a transition plan to mark Sawtooth and Springfield hatchery sockeye in 2015 as the hatchery program transitions to the Springfield Hatchery location. The FPC staff working with the Nez Perce tribe developed a plan to add fall Chinook mark groups from Pittsburgh Landing and Captain John Rapids acclimation facilities in 2015 for future CSS analyses.

Website, Daily Reports, Database and Data Updates

1. Wrote SQL queries to map the intersection as well as the aggregation of monitoring release sites for spring/summer Chinook ESUs, MPGs, and populations for current year updates.
2. Created a procedure and automated script to:
   a. Input release sites into the spatial database on PostgreSQL
   b. Create spatial points from latitude/longitude data and register those points with spatial reference system (spherical Mercator, units meters)
c. Overlay re sites with various geographies used in spatial queries (HUCS, river zones, ESAs for chinook, MPGs for spring/summer Chinook, and POPs for MPGs for spring/summer Chinook).

3. Began process of creating SPSU CHINOOK monitoring mapping prototype application.
   a. Designed user interface for monitoring app prototype.
   b. Added data to table of contents and colored datasets for the mapping application.
      i. General groups include:
         1. ALL SCALES - Hatcheries and RelSites
            a. Hatchery Sites
            b. Hatchery Code Labels
            c. Release Sites
            d. Release Site Code Labels
            e. Watershed Boundaries
         2. WATERSHED - ESU, MPG, Populations
         3. WATERSHED - Streams, Towns and Highways
         4. RIVER BASIN - Rivers, Counties and Interstates
         5. COLUMBIA RIVER BASIN - ESU, MPG, Populations
         6. ALL SCALES - Land cover and water

4. Regular database and website maintenance.

5. Updated annual report hatchery maps.

6. Updated CSS annual report tag and release site maps.

**Hardware, Software Development and Data Maintenance**

1. CSS bootstrap program updates
   - New computer program CSS Bootstrap BT4.3 Light has been developed.
     - Export output data into SQL Server tables in formats easy to import into Excel applications
     - Run application from settings screen
     - Run application from list for multiple settings
     - Separate results in three tables (CRT, T and R) with individual structure

2. Built a new database server (SQL2)

3. Switched data collection to new database server
   a. Reinstated replication services for database tables, storage procedures and views
   b. Reinstated ODBC services
   c. Reinstated backups and scheduled jobs

4. Replaced failing hard drive in BOOTSTRAP-6 database server

5. Reinstalled databases and data collection services on BOOTSTRAP-6 after hard drive replacement.
SPSU Chinook Monitoring Prototype Application Interface

Spring/Summer Chinook Release Sites Spatial SQL script
Replication Services for Database Tables, Storage Procedures and Views Used on Website

Updated Annual Report Hatchery and CSS Release Maps
BT 4.2 Updates

CSS Bootstrap BT4.3 Light
FPC.ORG WEBSITE STATISTICS
2014 – THIRD QUARTER July through September

The FPC website is the primary vehicle for data distribution. During the third quarter of 2014, FPC.org had 8,460,611 hits. There were a total of 1,584,988 pages viewed and 891,204 visits to the website. The average hits per day in the third quarter were 91,558. The average number of page views was 17,031 with an average staying time of about 12.27 minutes. About 96% of the visits were from the United States. Of the U.S. visits, 32.7% were from Washington, 22.1% were from Oregon, 9% were from California, 6.1% were from Idaho and 30.1% were from other states. About 34% of the visits from the U.S. were from commercial organizations, 59.7% were from network/individuals, and 6.3% were from government and education. The most active day of the week was Tuesday, while the least active day of the week was Saturday. The busiest hour of the day was around 2:00 PM. September was the busiest month with 42.7% of the hits, followed by August with 31.3%, and July with 26%. The top platform (operating system) used to hit the site during the third quarter of 2014 was Windows 7 with about 39.4% of the hits, followed by AndroidOS (24%), Windows NT (6.6%), Windows Vista (4.4%), Mac OS (6.4%), and Unix/Linux (1%). The top browser used to hit the site was Internet Explorer (29%) followed by Safari (17.4%), Chrome (16.7%), Firefox (7.8%) and other various browsers (29.1%). A total of 18.7% of the hits during the third quarter were from mobile devices. Of the 18.7% mobile hits, 68% were from iPhones, 31.1% were from iPads, 0.6% were from various Android devices, and 0.3% were from iPods.

The top requested page was the Daily Adult Salmon Dam Count Report. Of the top 50 requested pages and queries, 67.7% were about adult salmon, 9.7% were about RSS adult counts, 9.3% were water temperature queries, 6.8% were about FPC documents and administrative pages, 1% was about PIT tags, 4.3% were about the adult graph, 0.08% were about flow and spill, 1.1% were about smolt queries, and 0.2% were about rivers. We track the number of page views on the dynamic web queries which are a measure of the data requests via the website (i.e., .asp, .aspx, .php, etc.). During the third quarter of 2014, there were 649,366 total data requests.
Most Active US States

Top 50 Requested Page Groups
3rd Quarter 2014, FPC.org
Manage and Administer Projects

During the third quarter of 2014 FPC staff worked with state and federal subcontractors, PSMFC, and BPA to complete Comparative Survival Study project proposals and budget submittals for 2014. During the third quarter FPC staff began working with agencies and tribes, and PSMFC to begin work on the project and budget proposal for the Smolt Monitoring Program for 2015.

Produce Status Reports

All Pisces status report requirements were met for the SMP, CSS, and FPC projects for this quarter. Files and reports were uploaded into the Pisces system to Bonneville where required. The FPC completed new Biological Opinion, RPA reporting requirements for the Fish Passage Center, Smolt Monitoring Program and Comparative Survival Study projects, during the second quarter of this year.

Produce Annual Progress Reports

All Pisces progress reports were completed successfully for the CSS, the SMP, and the FPC projects.

Regional Coordination, Fishway Inspections/FPAC

Monthly Fishway inspections were coordinated and implemented according to schedule at all projects. FPC staff focused particular attention on passage at upper Columbia projects which have experienced adult passage problems due to structural issues at Wanapum and Rock Island and trapping issues at Wells project. Summary reports were provided to the fishery agencies and tribes. Summary reports were provided to the fishery management agencies and tribes.