MEMORANDUM

TO: Fish Passage Center Oversight Board  
   Jann Eckman, CBFWA  
   Randy Fisher, PSMFC

FROM: Michele DeHart

DATE: August 20, 2012

RE: Quarterly Fish Passage Center Report for April - June 2012

Following is the Quarterly Report for the Fish Passage Center for the second quarter of 2012. This report follows the format and content agreed upon by the Fish Passage Center Oversight Board (Oversight Board).

Pisces System Work Elements

Produce environmental compliance documentation  
The FPC staff conducted quality control, quality assurance for the Smolt Monitoring Program, to assure accurate reporting of SMP daily sampling data. SMP weekly sampling totals were reviewed to assure that the SMP was operating within the sampling and handling permit limitations for the Program.

Provide Technical Review  
The FPC staff facilitated FPAC conference calls once a week throughout the quarter and attended monthly meetings of FPAC through the quarter. FPC provided weekly updates to FPAC, regarding status of fish passage and river and migration conditions. FPC staff provides technical support to facilitate FPAC discussions as requested by the FPAC members. The FPC staff provided review comments on two separate research reports, entitled “Changing rates of
upstream survival in Snake River Spring-Summer Chinook Salmon during the migration season” as indicated by short interval PIT tag estimates of survival” and The Marine Ecology of Juvenile Columbia River Basin Salmonids: A Synthesis of Research 1998-2011”.

**Analyze/Interpret data**

The FPC staff completed the draft Fish Passage Center Annual Report for 2011 during this quarter. The draft report was posted on the FPC web site for regional review on June 1, 2012. Comments and responses are prepared and attached to the final report. During this quarter FPC staff began bootstrap runs for CSS data to prepare data sets for CSS Oversight Committee analyses to prepare the draft Annual CSS Report for 2011.

During the second quarter of 2012, the FPC responded to 12 requests for data analyses and interpretation and 18 requests for data summaries, documents or graphic data representations.

1. FPC data access request and PTAGIS beta website - June 19, 2012
2. Juvenile Fish Mortality Estimates for Bonneville Second Powerhouse Bypass - June 7, 2012
3. CSS Annual Review response to comments - May 22, 2012
4. Sockeye juvenile mortality and descaling at Bonneville Dam, May 3-9, 2012 - May 10, 2012
5. Bonneville Dam Passage - May 4, 2012
6. Potential for Reducing Daytime Spill/Increasing Nighttime Spill Using Storage at Bonneville to Aid in Adult Passage - May 2, 2012
7. Review comments on the NOAA paper entitled, “Changing rates of upstream survival in Snake River Spring-Summer Chinook Salmon during the migration season as indicated by short interval PIT tag estimates of survival” - April 26, 2012
8. Overview of Bonneville Dam powerhouse operations and Spring Creek sub-yearling Chinook passage and mortality - April 24, 2012
10. 2011 Gas Bubble Trauma Biological Monitoring - Wells Hydroelectric Project - April 20, 2012

**Develop RME methods and designs**

During this quarter, FPC staff began researching and developing methods for calculation of fall Chinook SARs by route of passage, accounting for potential holdover fall Chinook, for the CSS
Annual Report draft. In addition, in preparation for the 2012 Gas Bubble Trauma (GBT) Monitoring Season, FPC personnel conducted GBT Training at Rock Island Dam and the USGS Cook Lab in early April. All GBT personnel were trained during these training sessions. In addition, SMP Personnel at John Day Dam and McNary Dam were trained in the collection of condition data for juvenile and larval lamprey. SMP personnel at Bonneville Dam were trained earlier in the season. The 2012 season is the first season where all three of these sites will be collecting condition data for juvenile and larval lamprey.

In early May, FPC personnel conducted quality assurance/quality control testing for GBT monitoring at all SMP sites that are conducting GBT monitoring in 2012. All sites passed QA/QC testing during this time. In addition, FPC personnel traveled to all the SMP trap sites in order to discuss data collection and processing.

**Data Management**

**Disseminate raw data and analytical result**

**Hardware / OS Software Upgrades**

- Visited SMP sites replacing touchscreen and performing maintenance on SMP site computers
- Built and setup a new website development workstation
- Reprogrammed router to balance out the internet traffic between the two T1 lines

**Software Development**

- RSS feeds usable with Windows 7 gadgets or any RSS readers
  - Adult Counts
  - SMP32.NET batch posting
  - and GBT Batch Posting
- New Windows 7 version application to collect hits from Web Log Files and clean images and csv’s files on Web Server after web server activities
- Researching use of cube data structure features for several FPC SQL databases

**Website, Daily Reports and Data Updates**

- Updated hatchery release maps and adult maps for the 2011 annual report.
- Regular website maintenance and updates, including updating some SMP queries and graphs for the new season (Fish Condition graph and query, Population index data and graphs and the passage index graphs and data queries)
- Regular database maintenance and update, including developing new database queries and views to automate some of the change date functions that need to occur at the beginning of each year
- Researched new technologies for potential inclusion in website upgrade including:
  - Extjs javascript toolkit
  - Dojo javascript toolkit
  - Geoext / Openlayers
  - Highcharts javascript chart library
  - Jquery tools including qtip2 and jtipmap
- Developed some preliminary queries using the above listed technologies and a framework model for updating existing queries using these technologies
- Began development on linking some of our data to our hatchery maps. For instance linking SARs to CSS release sites, including redd count data on the maps, etc..

Adult Count RSS feed
SMP Batch RSS feed
GBT Batch RSS feed
Table with Daily Adult Counts – linked from Adult Count RSS feed
New application to collect hits from Web Log Files and clean images and csv's files on Web Server
Preliminary queries using new researched website technologies
Preliminary queries using new researched website technologies

Beginning research/development of linking redd count index sites and data to FPC hatchery maps

Updated FPC Annual Report maps
FPC.ORG WEBSITE STATISTICS
2012 – SECOND QUARTER April through June

The FPC website is the primary vehicle for data distribution. During the second quarter of 2012, FPC.org had 9,050,090 hits. There were a total of 1,373,655 pages viewed and 702,705 visits to the website. The total number of unique visitors to the website in the second quarter was 158,064. The current year FPC.org 2nd quarter hits were 1.16 times greater than the 2011 hits; the current year second quarter page views were 1.58 times greater than the 2011 pages views and the 2012 second quarter visits were 1.41 times greater than the 2011 second quarter visits. The average hits per day in 2012 were 99,451. The numbers of unique page views were 1,023,634. The average number of page views during weekdays was 73,095, while the average number of page views during the weekend was 50,760. The average visits per day during the second quarter of 2012 to the website were 39,585 staying an average of 3:66 minutes. About 93% of the visits were from the United States. Of the U.S. visits, 29% were from Washington, 21% were from Oregon, 9% were from California, 6% were from Idaho, and 35% were from other states. About 42.2% of the visits from the U.S. were from commercial and organizations, 38.8% were from individuals, and 19% were from government and education.

The most active days of the week was Tuesday, while the least active day of the week was Saturday. The busiest hour of the day was around 2pm. May was the busiest month with 42% of the visits, followed by April with 29% and June with 29%. The top platform (operating system) used to hit the site during the second quarter of 2012 was Windows 7 with about 32% of the hits, followed by Windows XP (31%), Windows Vista (11%), Google Android (6%), Mac OS (5%), iOS (1), Unix/Linux (0.4%), Mobile Android (0.3%), and other platforms (13.3%). The top browser used to hit the site was Internet Explorer (58.5%) followed by Safari (18.2%), Firefox (9.4%), Chrome (6%), and other various other browsers (7.9%). A total of 8.2% of the hits during the second quarter were from mobile devices. Of the 8.2% mobile hits, 58.4% were from iPhones, 24.8% were from iPads, 13.6% were from various Android devices, 3% were from iPods.

The top requested page was the Daily Adult Salmon Dam Count Report. Of the top 100 requested pages and queries, 77.5% were about adult salmon, 8.3% were about FPC and the website (includes FPC homepage, contact, site map, FAQ, FPAC links, etc…), 9.25% were about river queries (flow / spill report, temperature graphs, spill update, etc…), 2.1% were about smolt data, 0.72% were about FPC documents, 2.13% were about CSS, hatchery and other data queries. 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 second quarter of 2012, there were 435,845 total data requests.
**Manage and Administer projects**
During the second quarter of 2012 FPC staff worked with BPA, state and federal subcontractors and PSMFC to review expenses, invoices, obligated and unobligated funds to begin the contract close out process for the 2011 SMP contract.

**Produce status reports**
All Pisces status report requirements were met for the SMP, CSS and FPC projects for this quarter. 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.

**Produce annual progress reports.**
All Pisces progress reports were completed successfully for the Comparative Survival Study, the Smolt Monitoring Program and the Fish Passage Center projects.

**Regional Coordination, Fishway Inspections/FPAC**
In the second quarter of this year the Final Annual Fish Facilities Inspection Report for 2011 was completed. It was posted on the FPC web site on May 24, 2012. Between April and June of 2012, fishway inspections were conducted at most Columbia and Snake River Dams fitted with adult fish passage structures. All monthly FPOM meetings were attended and in season issues at COE dams were coordinated.