MEMORANDUM

TO: Fish Passage Center Oversight Board
   Brian Lipscomb, CBFWA

FROM: Michele DeHart

DATE: May 9, 2008

RE: Quarterly Fish Passage Center Report for January – March 2008

Following is the Quarterly Report for the Fish Passage Center for the first quarter of 2008. This report incorporates the comments received at the last Fish Passage Center Oversight Board (Oversight Board) meeting regarding format and content. The report follows the Pisces work elements format for the project.

Pisces System Work Elements

Produce environmental compliance documentation
The compliance reporting was completed for the Smolt Monitoring Program (SMP) project and the Comparative Survival Study (CSS) project for the data collection, marking and sampling for the 2007 juvenile migration season. Reporting formats and reporting requirements were modified by NOAA Fisheries, the permitting agency, requiring additional time to meet the new reporting requirement modifications. In addition, permit applications were successfully completed and approved for the 2008 SMP and CSS sampling and data collection activities. The application format and requirements were also modified requiring additional time to address format modifications.

Provide Technical Review
During the first quarter of 2008 the FPC staff was asked to provide review comments to the Fish Passage Advisory Committee on the Draft Water Management Plan for 2008. Those comments
were provided to FPAC and also posted on the FPC web site. The FPC staff provided review comments in response to a request by IDFG regarding published study results. Review and comparison of juvenile fall Chinook migration groups was provided to FPAC. These are posted on the FPC web site.

FPC staff attended Oregon DEQ and Washington DOE Adaptive Management Meetings to provide technical support, review and analysis as requested by the state management agencies and the regional committee.

**Analyze/Interpret data**

Staff priority in the first quarter of 2008 was summarizing and assembling 2007 migration data for the 2007 FPC annual report and for the CSS 2007 annual status report. Technical analysis and presentation of migration and passage data completed and presented to technical staffs of Washington Department of Fish and Wildlife and Oregon Department of Fish and Wildlife in response to their requests.

A total of eleven requests were received that required analysis and interpretation of data. Responses were all posted on the FPC web site. These ranged over a wide range of topics and were received from fish management entities and the public. These are listed below as was requested at the last Oversight Board meeting.

1. Steelhead Transport Proportion in 2007
2. Surrogate Fall Chinook experimental groups
3. Draft 2008 Fish Operation Plan comments
4. Spill Volume changes with use of tailrace monitors
5. NOAA Biological Opinion flow targets and the affects on specific operations at Grand Coulee
6. Data request regarding higher adult mortality for upper Snake River steelhead (BON-MCN) compared to Snake River spring Chinook (BON-LGR) as reported in the 2007 draft BIOP.
7. JDA Spill 4-10-08 to 4-21-08
8. Data request to determine the volume of spill affected by Camus/Washougal TDG monitor
9. Response to data request for information on the 2007………
10. Response to data request, FPC database
11. Response to request to evaluate outflows that …Grand Coulee under a flood control shift in 2008
12. Data request, response to questions from Russ Keifer, IDFG.

**Develop RME methods and designs**

The FPC staff provided technical support to CBFWA member agencies in developing RME alternatives, mark group numbers and sampling options for the NPCC Fish and Wildlife Program amendment process.

**Create/manage/maintain database, maintain long term database, maintain SMP/CSS site data**

During the first quarter of the year we began the upgrade to the data center. New servers were built and relocated in new heat dissipating racks. A new mail server was built and upgraded to
Exchange 2003, thus allowing upgrading to new anti-spam software to reduce the impact of spam in our email system by over 92%. In addition the FPC staff completed an upgrade to our domain to Windows 2003 which allows for better security and will allow all the workstations at the FPC to be upgraded to Windows XP Professional. Specific upgrades will continue through the upcoming months.

Year end and beginning of year data management procedures and documentation were completed in this quarter. This included, updating excel macros, storage procedures, web scripts, web pages, and reports for the new year. A new population index graph and table query were developed and added to the web site in preparation for the 2008 juvenile passage season. Year end procedures for finalization of databases for 2007 were implemented. This included verification of adult count data for each site with the Corps of Engineers final numbers. Hatchery release data was validated and finalized with state, federal, and tribal hatchery programs.

Population Index Graph, Query and Report

![Population Index Graph](image1)

<table>
<thead>
<tr>
<th>Site</th>
<th>Sample Date</th>
<th>Species</th>
<th>Agecode</th>
<th>Mark Type</th>
<th>Population Index</th>
<th>Lower_Cnt</th>
<th>Upper_Cnt</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGR</td>
<td>3/20/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>20</td>
<td>17</td>
<td>24</td>
</tr>
<tr>
<td>LGR</td>
<td>3/22/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>40</td>
<td>33</td>
<td>47</td>
</tr>
<tr>
<td>LGR</td>
<td>3/25/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>28</td>
<td>17</td>
<td>33</td>
</tr>
<tr>
<td>LGR</td>
<td>3/29/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>237</td>
<td>197</td>
<td>277</td>
</tr>
<tr>
<td>LGR</td>
<td>3/30/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>97</td>
<td>61</td>
<td>113</td>
</tr>
<tr>
<td>LGR</td>
<td>4/1/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>117</td>
<td>84</td>
<td>150</td>
</tr>
<tr>
<td>LGR</td>
<td>4/2/2008</td>
<td>CH</td>
<td>Hatchery</td>
<td></td>
<td>185</td>
<td>150</td>
<td>200</td>
</tr>
</tbody>
</table>
Fish Condition Data – In response to an FPAC request to add fish condition data to the FPC website, FPC staff evaluated the various fish condition data from each of the sites to determine best format for various data and summarized into a standard form. The staff while working with the remote site personnel determined the major steps to accomplish the automation of inputting the various data sources into our database. Work is continuing on this database.

FPAC navigation link – In response to a request from FPAC, the FPC staff created an FPAC navigation link on the FPC website to facilitate FPAC discussions and ease of data access. The FPAC link and the additional fish condition queries are illustrated below.
FPAC links

Gas Bubble Trauma
Fish Composition

Smolt Composition Data at Little Goose Dam
from: 02/15/2008 to 12/15/2008

Instructions:
- After the html table is done loading, right click here and select either save target as... or save
  link as (depending on your browser) to save the Comma Separated Value (.csv) file to your
  computer.
- When browsing the data, click on the column heading to sort the data.
- To learn more about smolt monitoring program data click here to read the metadata.
- When there are blank fields in the results, it is because there was no data
- In season passage index data is calculated from river flow field data entered into the database
  at the SMF sites.
- Hatchery fish are salmon or steelhead that have been clipped, have a coded wire tag, or
  have elastomer tags. Steelhead fish with eroded fins are also hatchery steelhead. Unmarked
  Chinook or steelhead include fish that have not been clipped, fish that do not have coded wire
  tags, and fish that do not have elastomer tags.

<table>
<thead>
<tr>
<th>Site</th>
<th>Sample Enddate</th>
<th>Species</th>
<th>Age</th>
<th>Passage Index</th>
<th>Total Sample Count</th>
<th>Hatchery Sample Count</th>
<th>Unmarked Sample Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGS</td>
<td>4/8/2008</td>
<td>CH</td>
<td>1</td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>LGS</td>
<td>4/10/2008</td>
<td>CH</td>
<td>1</td>
<td>62</td>
<td>43</td>
<td>31</td>
<td>12</td>
</tr>
</tbody>
</table>
Fish Condition

Chinook Yearling Fish Condition at Bonneville Dam

Graph designed by the Fish Passage Center - Copyright © 2008 Fish Passage Center. All rights reserved.
Sample Mortalities

**SMP Site - Daily Salmon Mortalities Percentage**

Chinook Sub-Yearling Total Mortality Percentage of Daily Sample at Bonneville Dam

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
<th>Species</th>
<th>Collection</th>
<th>Total Mortals</th>
<th>Percentage Mort</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BON</td>
<td>3/28/2008</td>
<td>CH1</td>
<td>384</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BON</td>
<td>3/29/2008</td>
<td>CH1</td>
<td>759</td>
<td>26</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>BON</td>
<td>3/30/2008</td>
<td>CH1</td>
<td>435</td>
<td>6</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>1578</td>
<td>36</td>
<td>1.67%</td>
<td></td>
</tr>
</tbody>
</table>

Graph designed by the Fish Passage Center - Copyright © 2008 Fish Passage Center. All rights reserved.

Descaling

**Percentage of Fish Sampled Descaled Graph**

Chinook Yearling Percentage of Sample Descaled at Bonneville Dam

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Site</th>
<th>Date</th>
<th>Species</th>
<th>Number Descaled</th>
<th>Number Examined</th>
<th>Percentage Descaled</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>BON</td>
<td>3/28/2008</td>
<td>CH1</td>
<td>0</td>
<td>21</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>BON</td>
<td>3/29/2008</td>
<td>CH1</td>
<td>1</td>
<td>30</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>BON</td>
<td>3/30/2008</td>
<td>CH1</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>BON</td>
<td>3/31/2008</td>
<td>CH1</td>
<td>0</td>
<td>12</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Graph designed by the Fish Passage Center - Copyright © 2008 Fish Passage Center. All rights reserved.
Descaling report

A coordination meeting with Smolt Monitoring Program remote site personnel was held at the FPC in this quarter. FPC technical staff and SMP remote site personnel discussed needed modifications to data entry programs, programming needs, schedules for accomplishing those modifications and new data acquisition requirements from the remote sites. FPC staff submitted PIT tag requests for the CSS and SMP programs in accord with PSMFC requirements. During this quarter, Pisces project requirements for budgets, schedules, deliverables and work statements were completed by FPC staff for the 2008 Smolt Monitoring Program project and the CSS project, eight month extension.

Produce a plan
In response to request from CBFWA member agencies, the FPC staff developed alternative marking and monitoring plans for consideration by the fisheries managers to facilitate their consideration of long term marking and monitoring plans for the NPCC Fish and Wildlife Program amendment process.

Produce annual progress reports.
FPC staff completed a draft of the 2008 annual Fish Facilities Inspection report and distributed the draft for review. FPC staff continued to summarize and analyze migration data for the 2007 SMP and CSS annual reports, during this quarter.
Regional Coordination, Fish way Inspections/FPAC
Dewatered fishway inspections and monthly inspections were completed during this quarter. FPC staff provided the COE with comments on the 2008 Fish Passage Plan, FPC staff attended monthly FPOM meetings and fish facilities coordination meetings with Grant County PUD.

Disseminate raw summary and data results
The FPC staff placed significant effort during this quarter collecting historic LGR fish condition data and developing web based distribution and access structures, in addition to establishing a structure for collection and dissemination of real time fish condition data in 2008. During this quarter, after data validation and finalization, 2005-2008 LGR, 2008 MCN, 2008 BON, and 2008 JDA data are available on the web site.

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