



**FISH PASSAGE CENTER**  
1827 NE 44<sup>th</sup> Ave., Suite 240, Portland, OR 97213  
Phone: (503) 230-4099 Fax: (503) 230-7559  
<http://www.fpc.org/> e-mail: [fpcstaff@fpc.org](mailto:fpcstaff@fpc.org)

## **MEMORANDUM**

TO: Fish Passage Center Oversight Board  
Brian Lipscomb, CBFWA  
Randy Fisher, PSMFC

*Michele DeHart*

FROM: Michele DeHart

DATE: July 9, 2009

RE: Quarterly Fish Passage Center Report for April – June 2009

Following is the Quarterly Report for the Fish Passage Center for the first quarter of 2009. 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**

Sample collections and mortalities were reviewed weekly to assure permit requirements and conditions were met.

#### **Provide Technical Review**

In response to a request from the Fish passage Advisory Committee the FPC staff reviewed and provided comments on, "Statistical Design for the Lower Columbia River Acoustic-Tag Investigations of Dam Passage Survival and Associated Metrics".

## **Analyze/Interpret data**

The FPC completed data summaries, analysis and discussion of results for the FPC annual report summarizing the results of the Smolt Monitoring Program, passage conditions and river operations for 2008. The report was posted on the website for 45 day regional review ending on July 16. In addition, during this quarter the FPC staff has focused considerable effort in data analyses and interpretation in development of the draft CSS Annual Status Report for 2008, which will be posted on the website for regional review on August 31.

The FPC responded to 13 requests for data and analysis, which are listed below

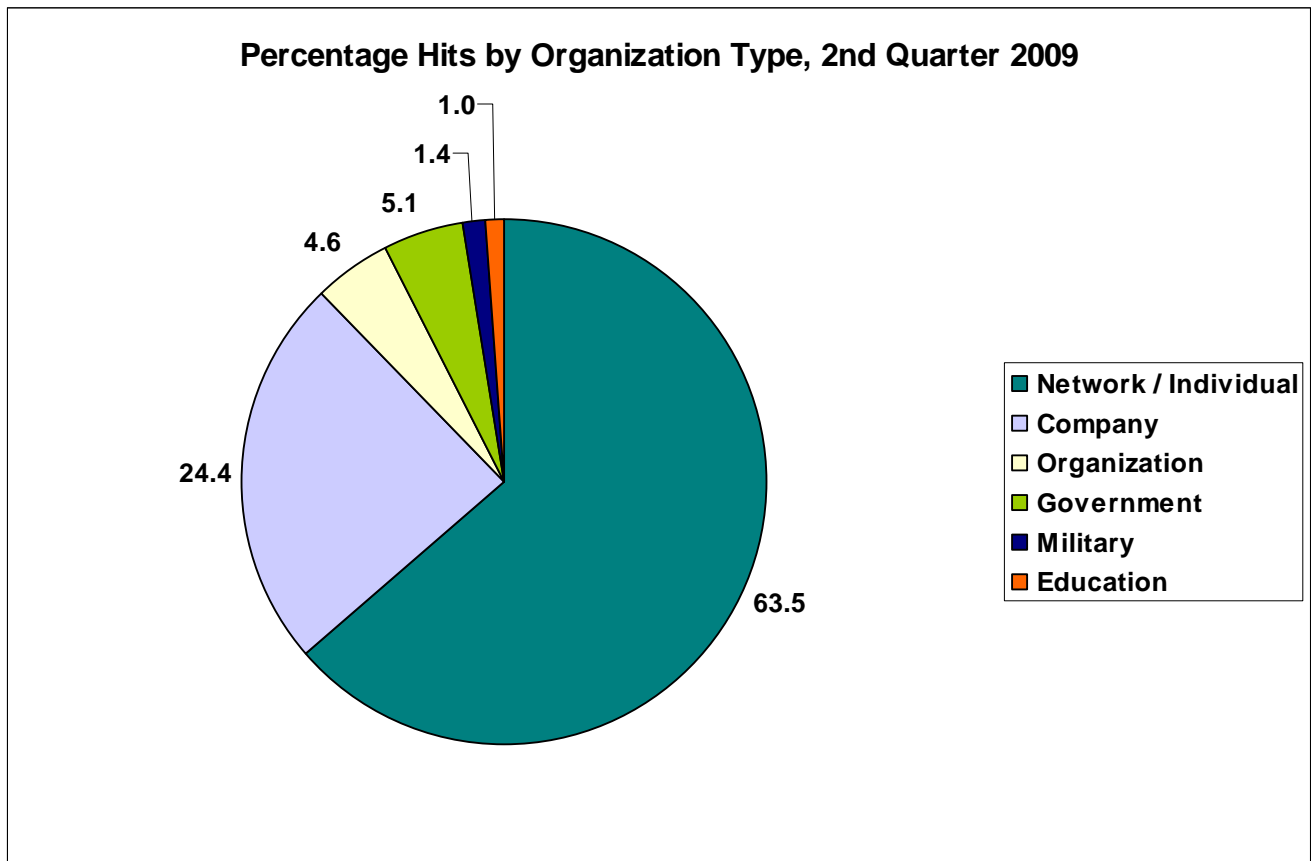
1. Review of; "Statistical Design for the Lower Columbia River Acoustic-Tag Investigations of Dam Passage Survival and Associated Metrics" - June 24, 2009 - FPAC
2. Mainstem monitoring: Comparative Survival Study; Coordination and integration of marking for estimation of smolt to adult returns (SAR) juvenile migration survivals and mainstem passage characteristics, The Smolt Monitoring Program; juvenile migration passage characteristics including survival. - June 22, 2009 - Members Advisory Group, CBFWA
3. 2009 Update of Proportion of hatchery Snake River sub-yearling Chinook (released above Lower Granite Dam) that are released unclipped and/or unmarked. - June 16, 2009 - FPAC
4. Proportion of fall Chinook and steelhead adults passing LGR during evening non-counting hours - June 11, 2009 - Jay Hesse, NPT
5. Data request to evaluate the adult passage count discrepancy for sockeye between John Day and McNary dams in 2008 - June 10, 2009 – John Harrison, NPCC
6. Spring Chinook adult passage in Snake River in May 2009 - June 1, 2009 - FPAC
7. Survival and detectability for 2007 Hanford Reach juvenile fall Chinook - May 22, 2009 Henry Franzoni, CRITFC
8. Ice Harbor bypass effects on Snake River hatchery Chinook returns - May 21, 2009 Russ Keifer, IDFG
9. Survival and delectability for 2008 Hanford Reach juvenile fall Chinook - April 28, 2009 Henry Franzoni, CRITFC
10. Audit of PTAGIS server system by Darin Jackson and Andrew Wilcox - April 15, 2009 - FPAC
11. Report on PTAGIS web query progress - April 15, 2009 - FPAC
12. Quarterly Fish Passage Center Report for January - March, 2009 - April 14, 2009 – FPC Oversight Board
13. Factors affecting adult passage of spring Chinook - April 8, 2009- Rob Lothrop, CRITFC

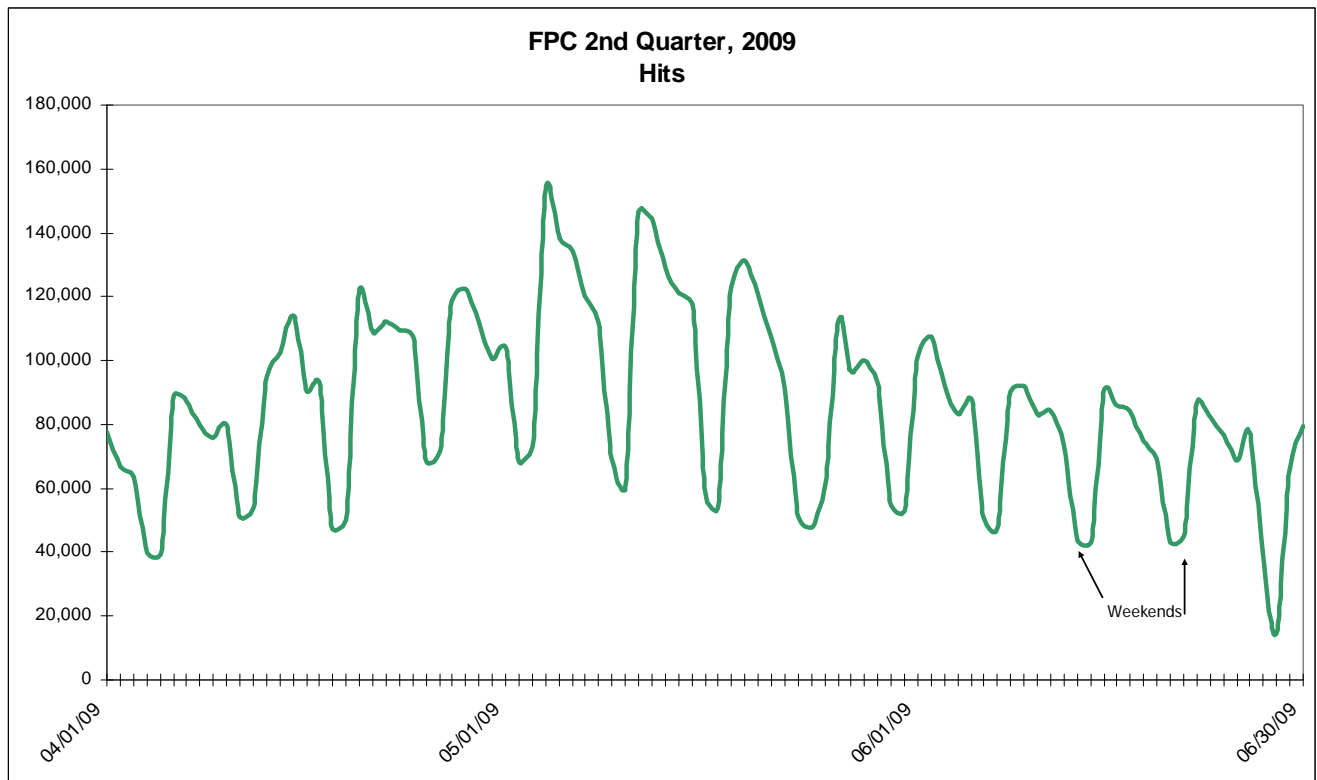
### Develop RME methods and designs

FPC staff participated with the CSS Oversight Committee, and CBFWA initiatives in developing a basinwide RME program to meet Biological Opinion requirements and the requirements of the NPCC Fish and Wildlife Program. The FPC staff provided technical support to the agencies and tribes specifically addressing the issues of coordination of monitoring programs in tributaries, hatcheries and sub basins with on going mainstem monitoring to achieve maximum efficiency and cost effectiveness. FPC staff participated with PSMFC and agencies and tribes representatives in discussions and reviews of enhancements to the PITAGIS data management and storage system. The implementation of the new fish mainstem condition sampling and data recording protocols has been monitored through the spring migration.

### Disseminate raw summary and data results

The FPC website is the primary vehicle for data distribution. The FPC site had 7,684,492 successful hits on our website during the 2nd quarter of 2009 with 643,984 page views and 468,378 user sessions. Approximately 83% of the user sessions were from the United States. Approximately 1% of the user sessions were international with about 16% of unknown origin. During the 2nd quarter, we averaged 84,444 hits per day and 7,076 page views per day. The average user session length was about 4:17 minutes. The number of unique visitors was 105,416. Of these unique visitors, 55.5% visited once and 44.5% visited more than once. We log all data requests via the web. The number of requests between 4/1/2009 and 6/30/2009 was 80,410. The following figures illustrate our website use for the 2nd quarter of 2009.





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

### Website Updates

Regular website maintenance and updates were completed during the quarter. This included updating the web scripts, pages and graphics when necessary. Additionally, work continued on updating the website and adding additional data queries. FPAC requested a ***Detailed Fish Condition Injury Data Query***. This was added to the FPAC Links page. A link was also placed on the fish condition query page. Under the survival sub-site, the ***CSS Returning Adult Age Composition Query*** was added. Metadata was created for both of these queries. Additionally the website navigation was updated, adding access to two newly developed TDG reports that are posted daily on the web (see the Software Development section below).

# CSS RETURNING ADULT AGE COMPOSITION QUERY

CSS Returning Adult Age Composition

Instructions

Single Year, data table

Multiple Year, data table

Single Year, data table & graph

Multiple Year, data table & graph

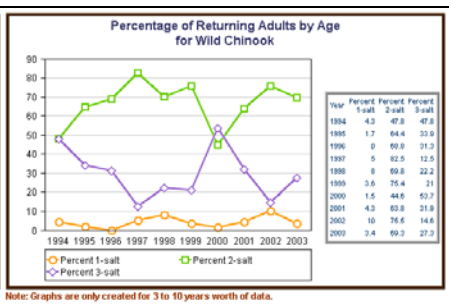
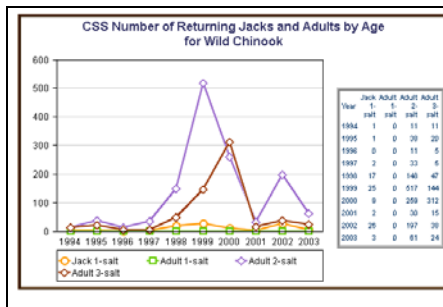
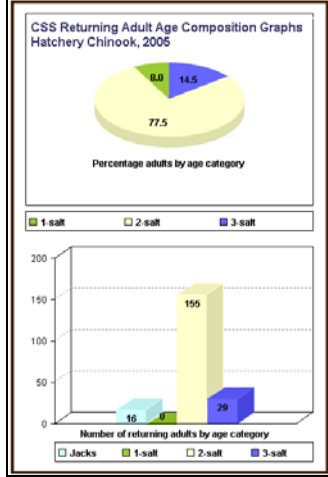
**Instructions:** Choose an option for querying the CSS age compositions of returning adults by clicking on one of the buttons and completing the form.

- ▶ **Single year table** allows you to choose a species, source location, and year, returning a data table that can be downloaded as a csv file.
- ▶ **Single year table & graph** allows you to choose a species, source location, and year, returning a data table that can be downloaded as a csv file. This option also graphs the data.
- ▶ **Multiple year table** allows you to choose a species, source location, and multiple years, returning a data table that can be downloaded as a csv file.
- ▶ **Multiple year table & graph** allows you to choose a species, source location, and multiple years, returning a data table that can be downloaded as a csv file. This option also graphs the data.

Source Site	Species	Rear code	OUT Migration year (my)	Jack 1-salt (returned in my+1)	Adult 1-salt (returned in my+1)	Adult 2-salt (returned in my+2)	Adult 3-salt (returned in my+3)	Percent 1-salt (Jack 1-salt CH or adult 1-salt ST)	Percent 2-salt
MCCA	CH	H	2005	16	0	155	29	0	77.5


**Notes:**

- ▶ PIT-tagged wild Chinook jacks and adults detected at LGR (source site NA) in the year 2000 had 1 4-salt adult return. Percentage 4-salt is 0.2 for this year.



Note: Graphs are only created for 3 to 10 years worth of data.

# DAILY DETAILED FISH CONDITION INJURY DATA GRAPH QUERY



**Smolt Data**

Daily Detailed Fish Condition Injury Data Graph

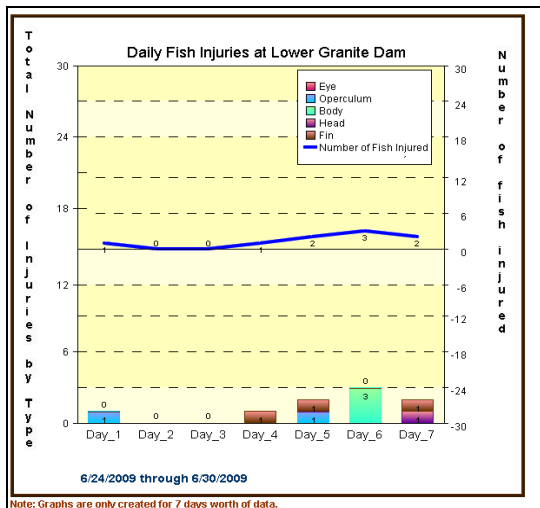
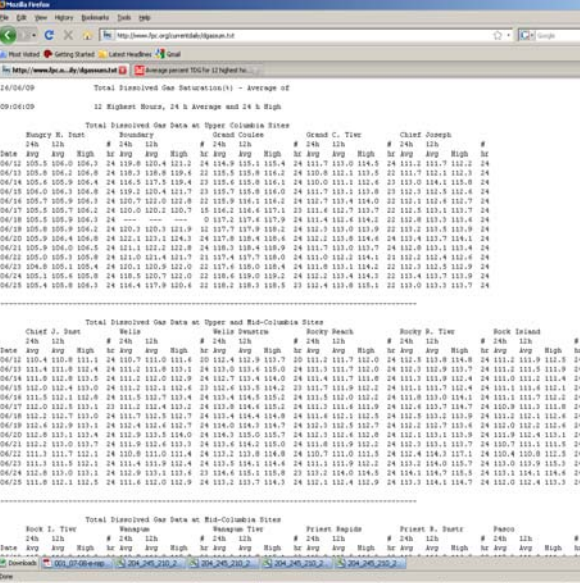
- Choose one of the following Smolt Monitoring Project sites:
- Select Start Date  and End Date  in mm/dd/yyyy format. The table below lists the dams and years that have fish condition data available to currently query.
- Choose one of the following anadromous salmonid species:
- Submit  or Reset

[Click here for metadata about the detailed fish condition data table and graph.](#)  
[Click here for smolt monitoring program metadata.](#)  
[Click here](#) to download a draft copy of the FPC SMP Condition Sampling Protocol Version 1.0 (2009)  
[Click here](#) to download a draft copy of the FPC32.net SMP Remote Site Data Entry Program Manual 2009 Season (this is the document includes documentation for the touch screen program used to collect the fish condition data)

**DATA TABLE:**

**Fish Condition - Detailed Injury Data:**

Site	Date	Batch	Species	Eye Injuries	Operculum Injuries	Body Injuries	Fin Injuries	Head Injuries	Number of fish with Physical Injuries	Number of Fish Sampled
LGR	6/24/2009	09175	CH0	0	1	0	0	0	1	87
LGR	6/25/2009	09176	CH0	0	0	0	0	0	0	63
LGR	6/26/2009	09177	CH0	0	0	0	0	0	0	70
LGR	6/27/2009	09178	CH0	0	0	0	1	0	1	100
LGR	6/28/2009	09179	CH0	0	1	0	1	0	2	100
LGR	6/29/2009	09180	CH0	0	0	3	0	0	3	98
LGR	6/30/2009	09181	CH0	0	0	0	1	1	2	87
LGR	7/1/2009	NA	CH0	0	0	0	0	0	0	0

Smolt Data Web Application Screenshot

24/06/09 Total Dissolved Gas Detention(s) - Average of 09:00:00 12 Eighteen Hours, 24 h Average and 24 h High

Total Dissolved Gas Data at Upper Columbia Sites

Henry K. Tiers	Grand Coulee	Grand C. Tiers	Chief Joseph
24h 12h	# 24h 12h	# 24h 12h	# 24h 12h
Date Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High

Total Dissolved Gas Data at Upper and Mid-Columbia Sites

Chief J. Tiers	Walla	Walla Damette	Bucky Beach	Bucky P. Tiers	Rock Island
24h 12h	# 24h 12h	# 24h 12h	# 24h 12h	# 24h 12h	# 24h 12h
Date Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High

Total Dissolved Gas Data at Mid-Columbia Sites

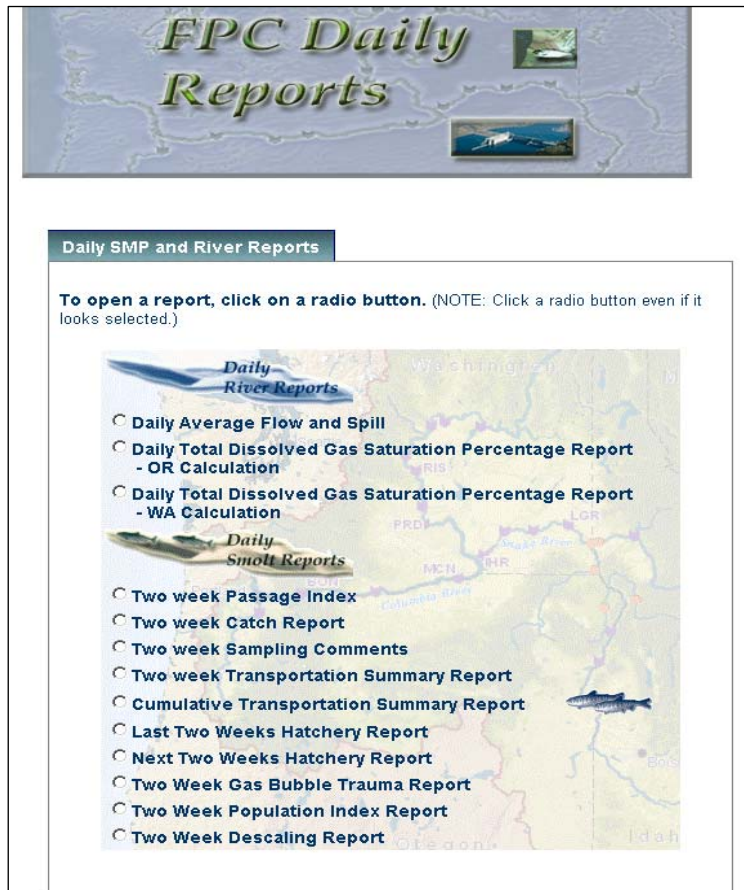
Rock I. Tiers	Manzan	Manzan Tiers	Prinet Rapids	Prinet R. Bantz	Pasco
24h 12h	# 24h 12h	# 24h 12h	# 24h 12h	# 24h 12h	# 24h 12h
Date Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High	hr Avg Avg High

## SOFTWARE DEVELOPMENT

SMP site personnel requested a few updates to their site access tools. These updates were developed and deployed at the sites. A new total dissolved gas program was developed along with two new TDG reports. Two data monitoring programs were developed, including an SMP batch monitoring and posting program and a TDG download data monitoring program. Both of these programs run on the FPC intranet and are deployed as a single dashboard application with a tab for each program. A more detailed description of the TDG program and the monitoring program dashboard follows.

## NEW TDG PROGRAM AND REPORTS

In June, FPC staff developed a new program to download and store hourly total dissolved gas (TDG) data from the COE and Grant County PUD websites. This new program processes these data each day and provides an estimate of the 12-hour average TDG levels for each project throughout the basin. The program estimates the 12-hour average TDG levels using both the Oregon and Washington criteria and generates two daily reports with the most recent two weeks of data for each methodology. Both of these reports are posted to the FPC Daily Reports section of the website for viewing and download ([http://www.fpc.org/riverandsmp\\_dailyreports.html](http://www.fpc.org/riverandsmp_dailyreports.html)).



**FPC Daily Reports**

**Daily SMP and River Reports**

To open a report, click on a radio button. (NOTE: Click a radio button even if it looks selected.)

**Daily River Reports**

- Daily Average Flow and Spill
- Daily Total Dissolved Gas Saturation Percentage Report - OR Calculation
- Daily Total Dissolved Gas Saturation Percentage Report - WA Calculation

**Daily Smolt Reports**

- Two week Passage Index
- Two week Catch Report
- Two week Sampling Comments
- Two week Transportation Summary Report
- Cumulative Transportation Summary Report
- Last Two Weeks Hatchery Report
- Next Two Weeks Hatchery Report
- Two Week Gas Bubble Trauma Report
- Two Week Population Index Report
- Two Week Descaling Report

## NEW DATA COLLECTION MONITORING APPLICATIONS:

To assist FPC staff in the monitoring of data acquisitions, FPC staff developed two data monitoring programs. The first of these programs was developed to monitor for the status of SMP batch data uploading. As SMP remote data entry sites send their data to the FPC, this program is updated. This allows FPC staff to quickly see which sites have uploaded the data for that day and which sites are still missing data for that day. The second of these programs was developed to monitor for the successful acquisition of data for the new TDG reports. This allows FPC staff to quickly view whether some TDG data are missing for the daily report or whether some sites have partial data (i.e., less than 24 hours for a single day).

Both of these programs run on the FPC intranet and are deployed as a single dashboard application that can be viewed with an internet browser from the user's own desktop.

The screenshot displays the 'BatchPosting' application interface. At the top, there are site icons for BO2, JDA, MCN, RIS, LMN, LGS, LGR, IMN, LEW, GRN, and WTB. A red warning icon is present. The main content area features a table with the following data:

BATCHID	SampleEndDate	SampleStartDate	Site	Time	Timing	Validation
<b>BO2</b>						
182	7/1/2009 12:00:00 AM	6/30/2009 12:00:00 AM	BO2	7/1/2009 10:10:08 AM	GOOD	GOOD
181	6/30/2009 12:00:00 AM	6/29/2009 12:00:00 AM	BO2	6/30/2009 11:29:57 AM	GOOD	GOOD
180	6/29/2009 12:00:00 AM	6/28/2009 12:00:00 AM	BO2	6/29/2009 9:29:41 AM	GOOD	GOOD
179	6/28/2009 12:00:00 AM	6/27/2009 12:00:00 AM	BO2	6/29/2009 9:24:49 AM	GOOD	GOOD
178	6/27/2009 12:00:00 AM	6/26/2009 12:00:00 AM	BO2	6/27/2009 10:58:52 AM	GOOD	GOOD
177	6/26/2009 12:00:00 AM	6/25/2009 12:00:00 AM	BO2	6/26/2009 9:22:56 AM	GOOD	GOOD
176	6/25/2009 12:00:00 AM	6/24/2009 12:00:00 AM	BO2	6/25/2009 11:37:40 AM	GOOD	GOOD
<b>GRN</b>						
182			GRN		IDLE	
181			GRN		BAD	
180			GRN		BAD	
179			GRN		BAD	
178			GRN		BAD	
177			GRN		BAD	
176			GRN		BAD	

The interface also includes a sidebar with 'FPC32 Posting' and 'TDG' buttons, a clock showing 3:05:17 PM, and the FPC logo at the bottom.



TDGPosting - Mozilla Firefox  
 File Edit View History Bookmarks Tools Help  
 http://mobydick/TDGPosting.aspx  
 TDGPosting Lower Snake River Compensation Plan ... Contact Information - Online E-mail Dir... PTAGIS

WLD5 RRH RRTW RIS RITW WANU WNT  
 Last update: 7/1/2009 3:13 PM Timing Validation

FPC32 Posting  
 TDG

grphsite

BDay	Count24h	LastRun	RunCount	Validation	grphdate	grphsite
181	24	7/1/2009 2:24:01 PM	1	IDEAL	6/30/2009 12:00:00 AM	CCIW
180	24	7/1/2009 2:24:16 PM	8	IDEAL	6/29/2009 12:00:00 AM	CCIW
179	24	7/1/2009 2:24:36 PM	19	IDEAL	6/28/2009 12:00:00 AM	CCIW
178	24	6/30/2009 1:11:13 PM	12	IDEAL	6/27/2009 12:00:00 AM	CCIW
177	24	6/29/2009 11:54:19 AM	17	IDEAL	6/26/2009 12:00:00 AM	CCIW
176	24	6/28/2009 10:57:42 AM	17	IDEAL	6/25/2009 12:00:00 AM	CCIW
175	24	6/27/2009 11:53:48 AM	18	IDEAL	6/24/2009 12:00:00 AM	CCIW
<b>CHDS</b>						
181	24	7/1/2009 2:24:07 PM	1	IDEAL	6/30/2009 12:00:00 AM	CHDS
180	24	7/1/2009 2:24:22 PM	8	IDEAL	6/29/2009 12:00:00 AM	CHDS
179	24	7/1/2009 2:24:42 PM	19	IDEAL	6/28/2009 12:00:00 AM	CHDS
178	24	6/30/2009 1:11:19 PM	12	IDEAL	6/27/2009 12:00:00 AM	CHDS
177	24	6/29/2009 11:54:24 AM	17	IDEAL	6/26/2009 12:00:00 AM	CHDS
176	24	6/28/2009 10:57:47 AM	17	IDEAL	6/25/2009 12:00:00 AM	CHDS
175	24	6/27/2009 11:53:53 AM	18	IDEAL	6/24/2009 12:00:00 AM	CHDS
<b>CHJ</b>						

3:14:09 PM  
 FPC

**Manage and Administer projects**

Proposed future budgets for the FPC, SMP and CSS were reviewed with BPA and CRITFC. The FPC staff reviewed SMP and CSS project budgets obligations and expenditures completed to this point in the contract year.

.

**Produce status reports**

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

**Produce annual progress reports.**

All Pisces progress reports were completed successfully. During this quarter, work continued to progress on the draft FPC annual report which is currently posted on the FPC web site for review. In addition the FPC staff continued analysis and development of the draft CSS Annual Status Report for 2008.

**Regional Coordination, Fish way Inspections/FPAC**

During this quarter, the 2008 annual Fish Facilities Inspection report for 2008 was completed and posted on the FPC web site on June 1. Regional review comments were received and addressed in the final report. FPC staff attended each monthly FPAC meeting and each weekly FPAC conference call.