

# FISHWAY STATUS REPORT

**Date:** 10/5/2013  
**Inspection Period:** 9/29 thru 10/5/2013

All JD Fishways are inspected twice per day during walk throughs;  
 frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

|   |   |  |
|---|---|--|
|  | <b>JOHN DAY DAM</b>   |  |
|   | JD/WC Project-Fisheries<br>P.O. Box 823<br>Rufus, Oregon 97050<br>Phone: 541-506-7860 |  |

| <b>John Day Dam</b>                 | <b>Inspections</b>     | <b>Criteria</b> | <b>Total Number of Inspections:</b> 14   | <b>Temperature:</b> 64.7 F                                 |
|-------------------------------------|------------------------|-----------------|--|--|
|                                     | <b>Out of Criteria</b> | <b>Limit</b>    |  | <b>Secchi:</b> 5.0 Ft.                                     |
| <b>NORTH FISHWAY</b>                |                        |                 | Four AWS pumps operational, two others OOS.                                      |  |
| Exit differential                   | 0                      | ≤ 0.5'          |  |  |
| Exit Control weirs                  | 0                      | High setting    | High setting is normal for JDN   |  |
| Count station differential          | 0                      | ≤ 0.3'          |  |  |
| Weir crest depth                    | 0                      | 1.0' ± 0.1'     |  |  |
| Entrance differential               | 0                      | 1.0' - 2.0'     | AVG 1.5  |  |
| <b>SOUTH FISHWAY</b>                |                        |                 | In regular service with all three AWS turbines working properly                  |  |
| Exit differential                   | 0                      | ≤ 0.5'          |  |  |
| Exit Control weirs                  | 0                      | Mid setting     | Mid setting is normal for JDS  |  |
| Count station differential          | 0                      | ≤ 0.3'          |  |  |
| Weir crest depth                    | 0                      | 1.0' ± 0.1'     |  |  |
| South entrance differential         | 2                      | 1.0' - 2.0'     | AVG 1.2  | Due to emergency troubleshooting of Turbine 1 annunciation |
| Entrance weir SE1                   | 0                      | depth (≥ 8')    | AVG 8.3  |  |
| Collection channel velocity         | 0                      | 1.5 - 4 fps     | ft/sec #REF!   |  |
| Bay 1 differential                  | 0                      | 1.0' - 2.0'     | AVG 1.5  |  |
| N. Entrance PH(Bay 19)differential  | 2                      | 1.0' - 2.0'     | AVG 1.1  | Due to emergency troubleshooting of Turbine 1 annunciation |
| Entrance weir NE1                   | 0                      | depth (≥ 8')    | AVG 8.2  |  |
| Entrance weir NE2                   | 0                      | depth (≥ 8')    | AVG 8.2  |  |
| <b>JUVENILE PASSAGE</b>             |                        |                 | SMF sampling season ended on 9/15, full flow PIT tags detections through 27 Nov. |  |
| Forebay/bypass conduit differential | 0                      | 4.0' - 5.0'     | AVG 4.6  |  |
| Submersible traveling screens       | 0                      | visual inspect  |  |  |
| Turbine trashrack drawdown          | 0                      | <1.5', wkly     | Very low river debris loads and low drawdown measurements                        |  |
| Vert barrier screen drawdown        | 0                      | <1.5', wkly     |  |  |
| Spill volume                        | 0                      | Bay 2 only      | Spill for fish passage ended on 9/1, TSWs OOS.                                   |  |
| Spill pattern                       | 0                      | Bay 2 only      |  |  |
| Turbine Unit Priority               | 0                      | per FPP         | MU priority without TSWs requires only units 1-4 in service                      |  |
| Turbine 1% Efficiency               | 0                      | per FPP         |  |  |

## SMOLT MONITORING FACILITY

**Operation:** Sampling season ended on 9/15; SMF will continue in bypass for the full flow PIT tags detections until 26 November.

JD Fisheries crew coverage/ monitoring is 18 hrs/7 days since 9/15.

PDS screen rake continues in regular service without any issues.

**Debris:** Very light

### **Maintenance:**

SMF building / wet lab OOS and in the process of winterization by JD Fisheries. Kudos to Mr. Greg Kovalchuk, JD PSMFC Sampling Biologist for his significant assistance and cleanup work !

SMF CCTV replacement is in planning stage ; on hold due to lack of funding. Likely implementation in FY 2014 :)

**Research:** None. No fish collections in 2013

**Fallbacks:** AVG: 0 MAX: 0 MIN: 0

## OTHER ISSUES:

### **JOHN DAY**

**Birds:** See Avian tabs.

123 avian lines are properly installed. Two lines are currently missing; spillway/TSW line broke on 4/12/13. JD Management preparing a plan for the missing lines' replacement before 2014 passage season.

### **Operations:**

JD North Fishway in service, meeting the FPP optimal criteria with 3 out of 4 AWS pumps operational; # 2 & 4 OOS due to continuing technical issues.

JD South Fishway AWS turbine # 1 OOS due to a bearing high temperature alarm on 9/28, 1700 hrs; it returned back to service on 10/8 AM after extensive troubleshooting. Kudos to Eddie Schlaht, JD mechanic who was instrumental in proper identification/ fixing of a troublesome RTD !

The two resulting OOC differentials were short in duration and not as significant as they appear numerically in the averages table (below.)

**JD South met the FPP criteria with the two remaining AWS turbines / pumps 99 % of time, when unit 1 was OOS**

JD Fisheries is planning for the ROV inspection of JD South collection channel's diffuser grating on 10/9, at night due to an unexplained event related to a sudden and significant increase of AWS internal pressure.

JD Spillway has only bay 2 open at 1.5K, during daylight hours only since 9/1. This is providing additional attraction to JD North entrance.

### **Maintenance:**

Monthly (September) STS inspection by JD Structural crew was completed by 10/3. All operating screens were found in good working condition.

Gatewell draw down: Measurements made on 9/29. All units were within established limits.

Calibration: 10/5/2013 All JD Fishways' PLCs/ water level sensors were within 0.3' margin of error.

### **Research:**

WDFW dam angling ongoing ; weekly catch ending 8/25 was 2 NPM with 2,171 total since 5/1. Fishing is expected to continue through August.

Fish counting at both JD Fishways ongoing as required by FPP.

Adult Salmonids Radio telemetry evaluations are ongoing at both JD adult fishway. University of Idaho crew is in charge of detecting of all adult adult salmonids, which were first tagged at Bonneville Dam.

Glen A. Smith PE

OPM John Day/Willow Creek Project

Date: \_\_\_ 27-Aug-13

### 2007-2013 Water Temps JDA w/ 12yr avg



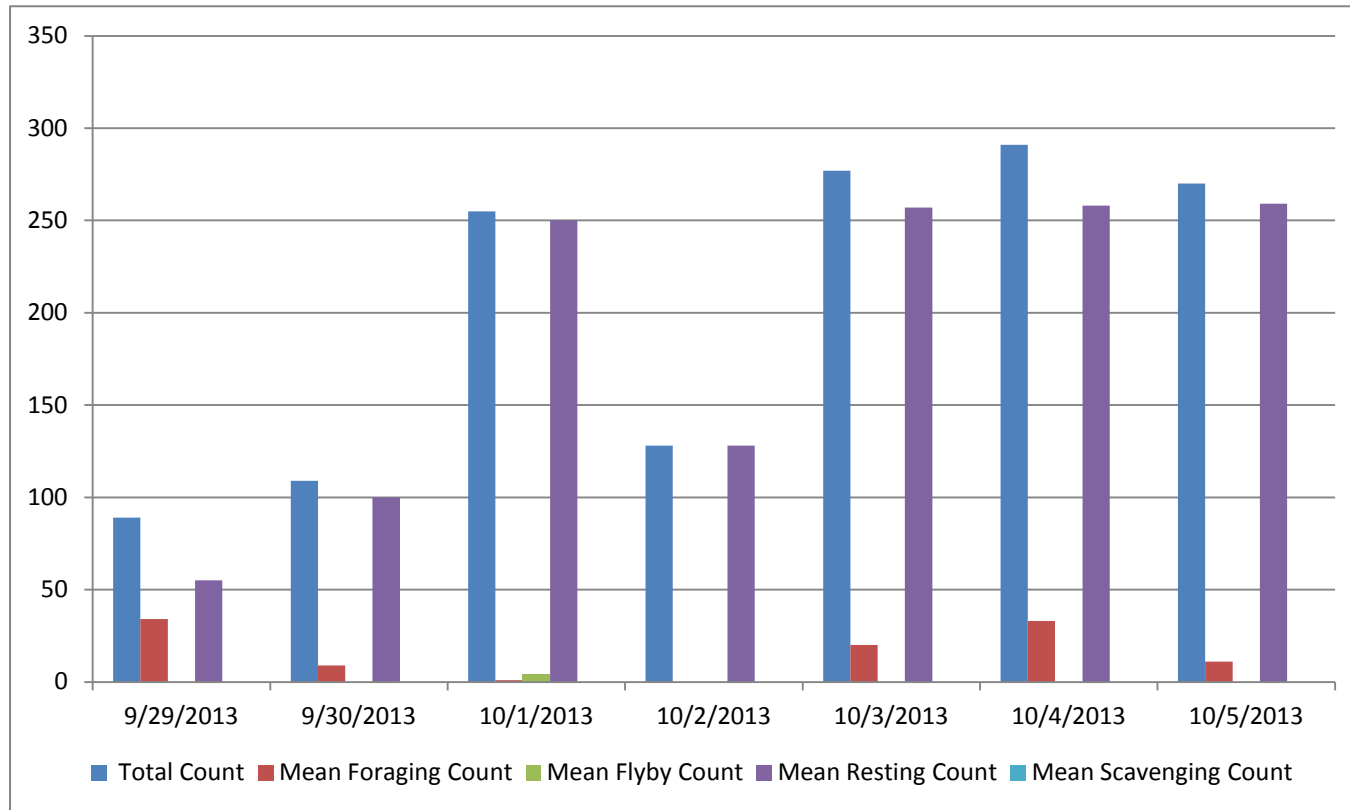
## JDA COLLECTION CHANNEL VELOCITY

Date 28-Sep-13  
By: pete/eric

| Bay(s)  | Time    | Sec. | Velocity (f/s) |
|---------|---------|------|----------------|
| 0-2     | 0:01:35 | 95   | 1.89           |
| 2 - 4   | 0:02:36 | 156  | 2.95           |
| 4 - 6   | 0:03:35 | 215  | 3.05           |
| 6 - 8   | 0:04:37 | 277  | 2.90           |
| 8 - 10  | 0:05:34 | 334  | 3.16           |
| 10 - 12 | 0:06:40 | 400  | 2.73           |
| 12 - 14 | 0:07:46 | 466  | 2.73           |
| 14 - 16 | 0:08:48 | 528  | 2.90           |
| 16 - 18 | 0:09:32 | 572  | 4.09           |

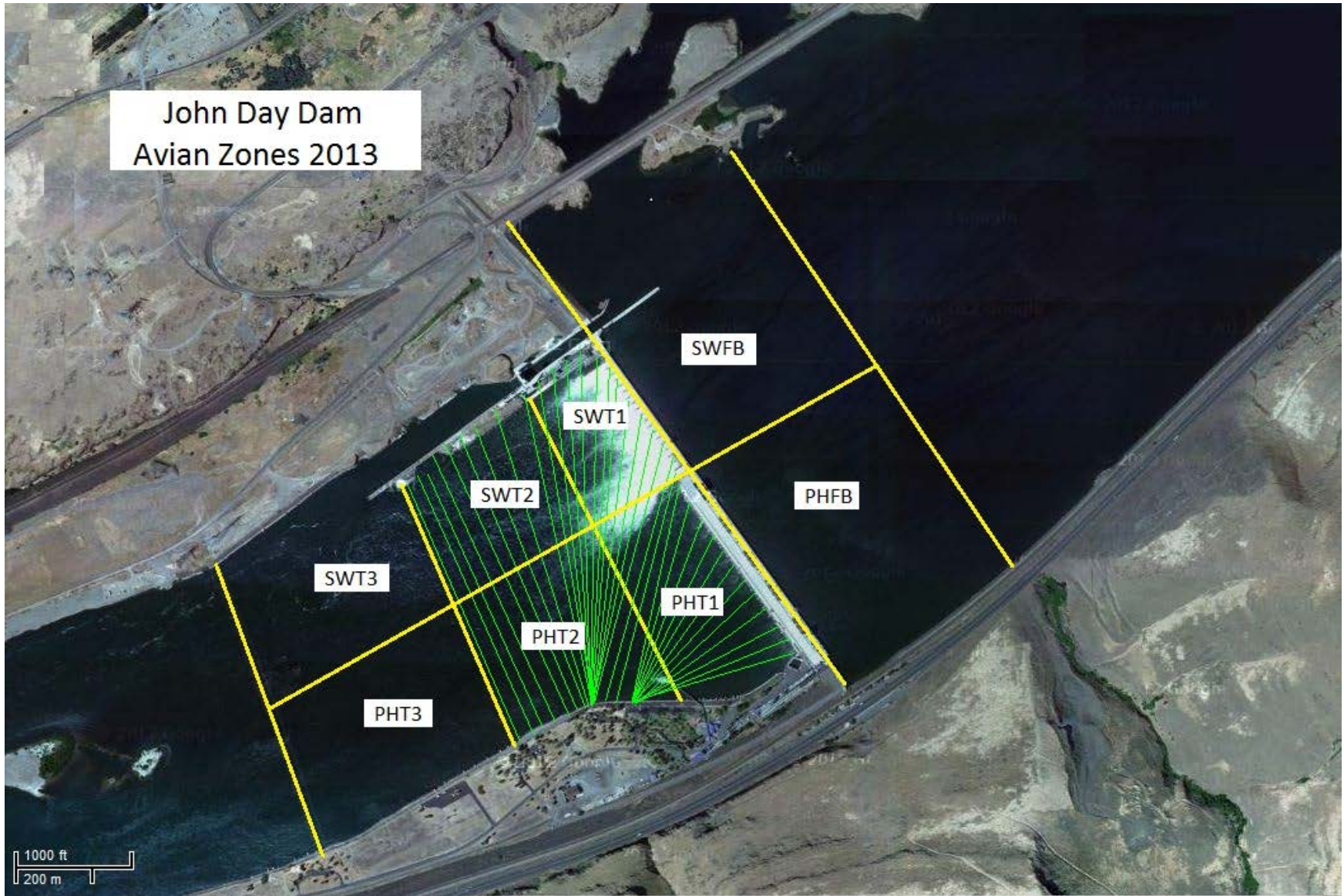
**2.93**

## Bird Count by Activity



| Date      | Total Count | Mean Foraging Count | Mean Flyby Count | Mean Resting Count | Mean Scavenging Count |
|-----------|-------------|---------------------|------------------|--------------------|-----------------------|
| 9/29/2013 | 89          | 34                  | 0                | 55                 | 0                     |
| 9/30/2013 | 109         | 9                   | 0                | 100                | 0                     |
| 10/1/2013 | 255         | 1                   | 4                | 250                | 0                     |
| 10/2/2013 | 128         | 0                   | 0                | 128                | 0                     |
| 10/3/2013 | 277         | 20                  | 0                | 257                | 0                     |
| 10/4/2013 | 291         | 33                  | 0                | 258                | 0                     |
| 10/5/2013 | 270         | 11                  | 0                | 259                | 0                     |

John Day Dam  
Avian Zones 2013



**John Day:**

|      | Temp: | Secchi:  | Fallbacks |
|------|-------|----------|-----------|
| Sun  | 66    | 5.0      |           |
| Mon  | 66    | 5.0      |           |
| Tues | 66    | 5.0      |           |
| Wed  | 65    | 5.0      |           |
| Thur | 64    | 5.0      |           |
| Fri  | 63    | 5.0      |           |
| Sat  | 63    | 5.0      |           |
| AVG: | 64.7  | AVG: 5.0 | AVG       |
|      |       |          | MAX       |
|      |       |          | MIN       |

|      | NE1 | NE2 | S.Ent | SE1 | N.Ent | JBS Diff | Bay1 | Bay19 |
|------|-----|-----|-------|-----|-------|----------|------|-------|
| Sun  | 8.2 | 8.4 | 1.2   | 8.5 | 1.4   | 4.6      | 1.7  | 1.3   |
| Sun  | 8.2 | 8.1 | 1.0   | 8.2 | 1.7   | 4.6      | 1.4  | 1.0   |
| Mon  | 8.1 | 8.1 | 1.2   | 8.1 | 1.5   | 4.5      | 1.7  | 1.2   |
| Mon  | 8.2 | 8.1 | 1.2   | 8.2 | 1.5   | 4.4      | 1.5  | 1.0   |
| Tues | 8.1 | 8.1 | 1.2   | 8.2 | 1.4   | 4.6      | 1.6  | 1.4   |
| Tues | 8.2 | 8.3 | 1.1   | 8.3 | 1.3   | 4.5      | 1.1  | 0.8   |
| Wed  | 8.2 | 8.0 | 0.8   | 8.7 | 1.2   | 4.5      | 1.1  | 0.9   |
| Wed  | 8.2 | 8.2 | 0.9   | 8.5 | 1.3   | 4.6      | 1.2  | 1.0   |
| Thur | 8.2 | 8.1 | 1.2   | 8.1 | 1.6   | 4.6      | 1.6  | 1.5   |
| Thur | 8.2 | 8.2 | 1.2   | 8.1 | 1.6   | 4.6      | 1.6  | 1.1   |
| Fri  | 8.1 | 8.0 | 1.3   | 8.4 | 1.4   | 4.6      | 1.7  | 1.2   |
| Fri  | 8.1 | 8.1 | 1.4   | 8.1 | 1.7   | 4.6      | 1.8  | 1.2   |
| Sat  | 8.2 | 8.2 | 1.4   | 8.1 | 1.7   | 4.5      | 1.7  | 1.0   |
| Sat  | 8.2 | 8.2 | 1.2   | 8.1 | 1.7   | 4.6      | 1.6  | 1.0   |
| AVG: | 8.2 | 8.2 | 1.2   | 8.3 | 1.5   | 4.6      | 1.5  | 1.1   |