

# FISHWAY STATUS REPORT

**Date:** 12/30/2013  
**Inspection Period:** 12/22 thru 12/28/2013

All JD Fishways are inspected once per day during winter season;  
 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> 5                           | <b>Temperature:</b> 40.0 F |
|-------------------------------------|------------------------|-----------------|---|----------------------------|
|                                     | <b>Out of Criteria</b> | <b>Limit</b>    |   | <b>Secchi:</b> 6.0 Ft.     |
| <b>NORTH FISHWAY</b>                |                        |                 | In regular service and meeting the optimal FPP criteria         |                            |
| 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 1.6   |                            |
| <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 is normal for JDS   |                            |
| Count station differential          | 0                      | ≤ 0.3'          |   |                            |
| Weir crest depth                    | 0                      | 1.0' ± 0.1'     |   |                            |
| South entrance differential         | 0                      | 1.0' - 2.0'     | AVG 1.3   |                            |
| Entrance weir SE1                   | 0                      | depth (≥ 8')    | AVG 8.7   |                            |
| Collection channel velocity         | 0                      | 1.5 - 4 fps     | AVG 3.12  |                            |
| Bay 1 differential                  | 0                      | 1.0' - 2.0'     | AVG 1.7   |                            |
| N. Entrance PH(Bay 19)differential  | 0                      | 1.0' - 2.0'     | AVG 1.2   |                            |
| Entrance weir NE1                   | 0                      | depth (≥ 8')    | AVG 8.6   |                            |
| Entrance weir NE2                   | 0                      | depth (≥ 8')    | AVG 8.6   |                            |
| <b>JUVENILE PASSAGE</b>             |                        |                 | OOS for winter maintenance since 12/20. RTS in late March 2014. |                            |
| Forebay/bypass conduit differential | n/a                    | 4.0' - 5.0'     | AVG 4.6   |                            |
| Submersible traveling screens       | n/a                    | visual inspect  |   |                            |
| Turbine trashrack drawdown          | n/a                    | <1.5', wkly     |   |                            |
| Vert barrier screen drawdown        | n/a                    | <1.5', wkly     |   |                            |
| Spill volume                        | n/a                    | n/a             |   |                            |
| Spill pattern                       | n/a                    | n/a             |   |                            |
| Turbine Unit Priority               | n/a                    | per FPP         |   |                            |
| Turbine 1% Efficiency               | n/a                    | per FPP         |   |                            |

**SMOLT MONITORING FACILITY**

**Operation:** SMF was successfully dewatered on 12/17 after JD Mechanics fixed the crest gate's lifting mechanism. Complete winterization of flushing water pipes and valves underway. RTS is mid March 2014.

**Debris:** N/A

**Maintenance:**

SMF building / wet lab OOS and winterized by JD Fisheries.

SMF CCTV replacement is in a planning stage. Likely implementation soon.

**Research:** None

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

**OTHER ISSUES:****JOHN DAY**

**Birds:** See Avian tabs.

122 avian lines are properly installed. Four 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 returned to regular service on 12/19 and it has been meeting the optimal FPP criteria since.

JD South Fishway in service, meeting the optimal FPP criteria with all three AWS turbines. Its dewatering scheduled for 7 January '14.

All STSs were removed from MU gatewells for winter maintenance by 19 December. JBS started 1/3 open orifices rotation schedule on 12/20.

JBS collection channel is scheduled for dewatering/ inspection in early February 2014.

**Maintenance:**

Calibration: 12/8/2013 All JD Fishways' PLCs/ water level sensors were within 0.3' margin of error.

**Research:**

Fish counting at both JD Fishways ended 10/31/13 . Video counting began 11/1 and will continue through the winter.

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:\_\_\_ 13-Jan-14

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



## JDA COLLECTION CHANNEL VELOCITY

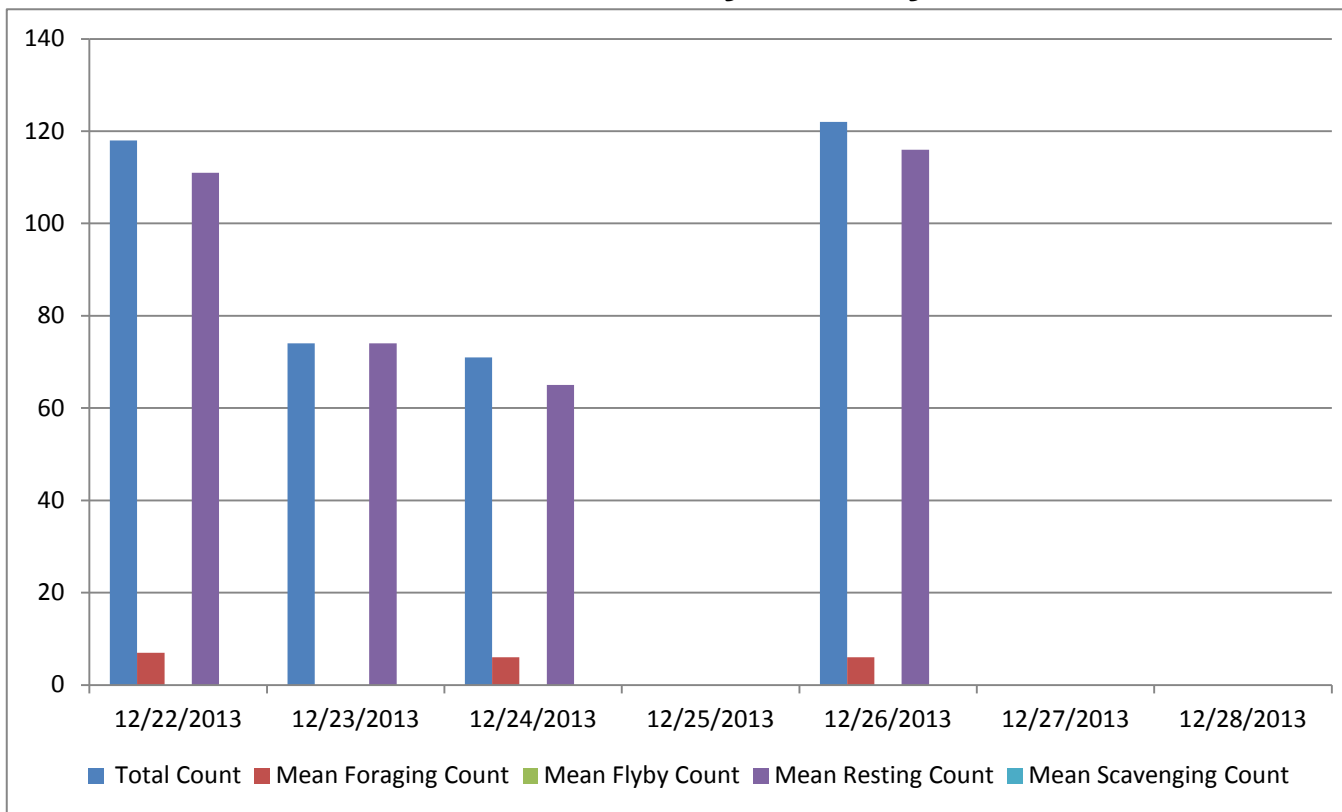
Date 21-Dec-13

By: pk

| Bay(s)  | Time    | Sec. | Velocity (f/s) |
|---------|---------|------|----------------|
| 0-2     | 0:01:23 | 83   | 2.17           |
| 2 - 4   | 0:02:20 | 140  | 3.16           |
| 4 - 6   | 0:03:16 | 196  | 3.21           |
| 6 - 8   | 0:04:14 | 254  | 3.10           |
| 8 - 10  | 0:05:10 | 310  | 3.21           |
| 10 - 12 | 0:06:10 | 370  | 3.00           |
| 12 - 14 | 0:07:17 | 437  | 2.69           |
| 14 - 16 | 0:08:13 | 493  | 3.21           |
| 16 - 18 | 0:08:55 | 535  | 4.29           |

**3.12**

## Bird Count by Activity



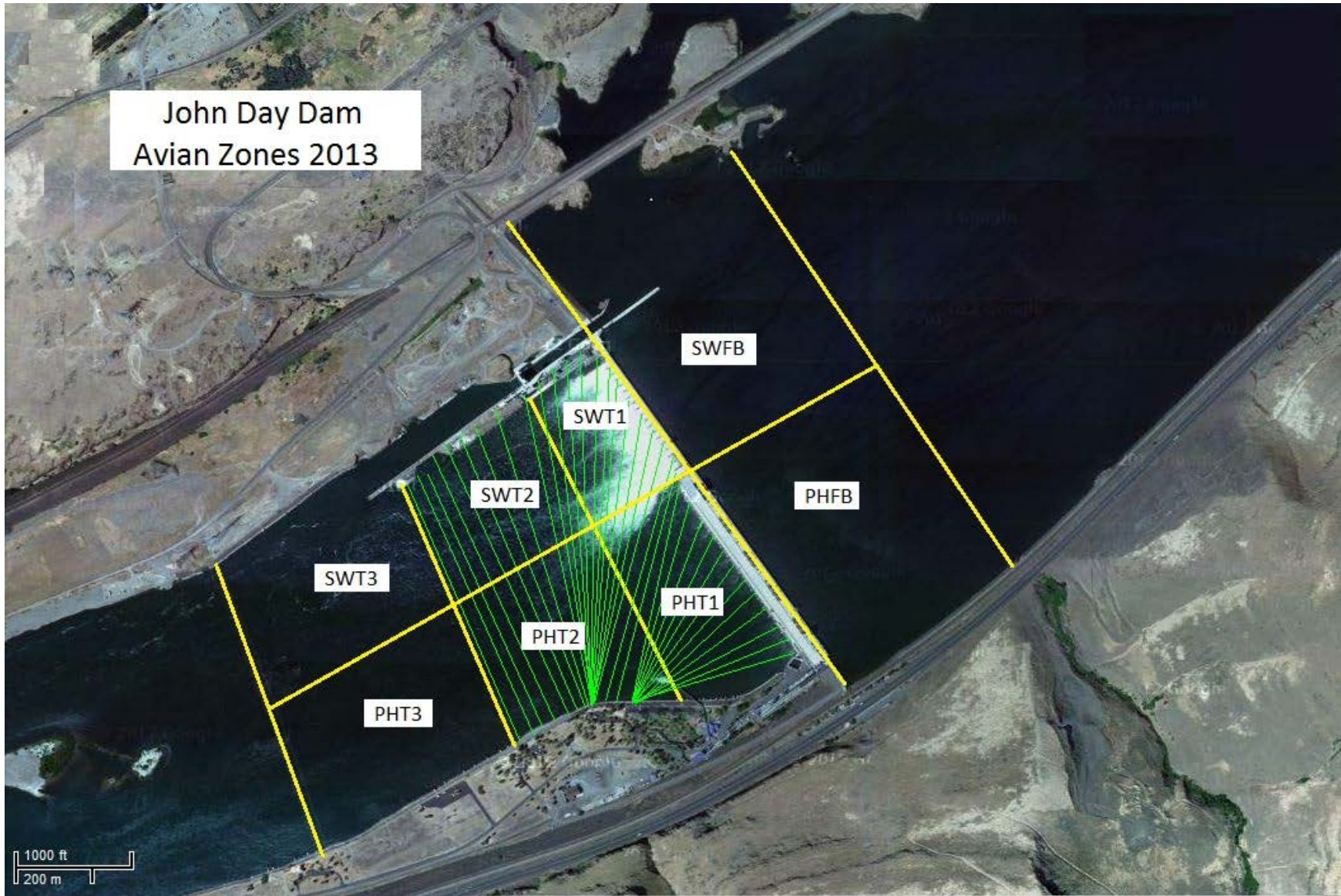
| Date       | Total Count | Mean Foraging Count | Mean Flyby Count | Mean Resting Count | Mean Scavenging Count |
|------------|-------------|---------------------|------------------|--------------------|-----------------------|
| 12/22/2013 | 118         | 7                   |                  | 111                |                       |
| 12/23/2013 | 74          |                     |                  | 74                 |                       |
| 12/24/2013 | 71          | 6                   |                  | 65                 |                       |
| 12/25/2013 |             |                     |                  |                    |                       |
| 12/26/2013 | 122         | 6                   |                  | 116                |                       |
| 12/27/2013 |             |                     |                  |                    |                       |
| 12/28/2013 |             |                     |                  |                    |                       |

**Seasonal High numbers of GULLS  
in the Forebay and on the WING WALL.**

**Christmas**

**Heavy Fog**

John Day Dam  
Avian Zones 2013



**John Day:**

|      | Temp: | Secchi:  | Fallbacks |
|------|-------|----------|-----------|
| Sun  | 40    | 6.0      |           |
| Mon  | 40    | 6.0      |           |
| Tues | 40    | 6.0      |           |
| Wed  |       |          |           |
| Thur | 40    | 6.0      |           |
| Fri  |       |          |           |
| Sat  | 40    | 6.0      |           |
| AVG: | 40.0  | AVG: 6.0 | AVG       |
|      |       |          | MAX       |
|      |       |          | MIN       |

|      | NE1 | NE2 | S.Ent | SE1 | N.Ent | JBS Diff | Bay1 | Bay19 |
|------|-----|-----|-------|-----|-------|----------|------|-------|
| Sun  | 8.8 | 8.8 | 1.3   | 9.1 | 1.5   | 4.5      | 1.6  | 1.2   |
| Sun  |     |     |       |     |       |          |      |       |
| Mon  | 8.4 | 8.4 | 1.3   | 8.6 | 1.6   | 4.7      | 1.8  | 1.2   |
| Mon  |     |     |       |     |       |          |      |       |
| Tues | 8.5 | 8.5 | 1.4   | 8.6 | 1.7   | 4.7      | 1.7  | 1.3   |
| Tues |     |     |       |     |       |          |      |       |
| Wed  |     |     |       |     |       |          |      |       |
| Wed  |     |     |       |     |       |          |      |       |
| Thur | 8.7 | 8.7 | 1.3   | 8.8 | 1.6   | 4.5      | 1.6  | 1.1   |
| Thur |     |     |       |     |       |          |      |       |
| Fri  |     |     |       |     |       |          |      |       |
| Fri  |     |     |       |     |       |          |      |       |
| Sat  | 8.4 | 8.4 | 1.4   | 8.5 | 1.6   | 4.5      | 1.7  | 1.3   |
| Sat  |     |     |       |     |       |          |      |       |
| AVG: | 8.6 | 8.6 | 1.3   | 8.7 | 1.6   | 4.6      | 1.7  | 1.2   |

Christmas