# FISHWAY STATUS REPORT

**Date:** 3/8/2014
**Inspection Period:** 3/2 thru 3/8/2014


JOHN DAY DAM
US Army Corps of Engineers
Portland District
JD/WC Project-Fisheries
P.O. Box 823
Rufus, Oregon 97050
Phone: 541-506-7860


All JD Fishways are inspected twice per day during fish season, March. 1 - Nov. 31
Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

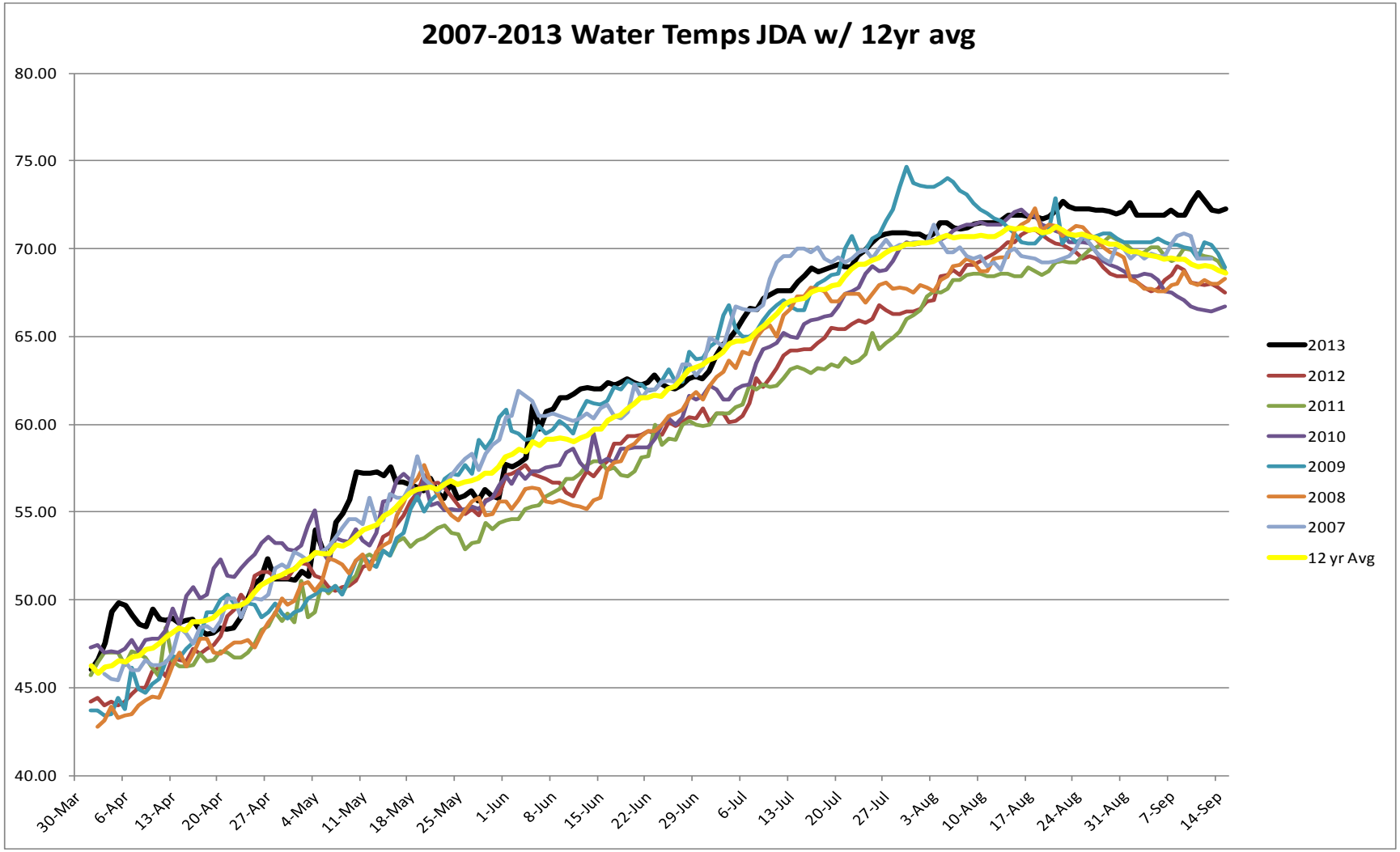
| **John Day Dam** | **Inspections Out of Criteria** | **Criteria Limit** | **Total Number of Inspections: 13** | **Temperature: 40.0** F |
|---|---|---|---|---|
| | | | | **Secchi: 4.0** Ft. |
| **NORTH FISHWAY** | | | In regular service and meeting the optimal FPP criteria | |
| Exit differential | 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 1.5 | |
| **SOUTH FISHWAY** | | | OOS for the annual maintenance outage since 1/4/14 . RTS is 1 March. | |
| 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 1.1' | |
| Entrance weir SE1 | 0 | depth (≥ 8') | AVG 9.6' | |
| Collection channel velocity | 0 | 1.5 - 4 fps | AVG | |
| Bay 1 differential | 0 | 1.0' - 2.0' | AVG 1.4' | |
| N. Entrance PH(Bay 19)differential | 0 | 1.0' - 2.0' | AVG 1.3' | |
| Entrance weir NE1 | 0 | depth (≥ 8') | AVG 9.4' | |
| Entrance weir NE2 | 0 | depth (≥ 8') | AVG 9.4' | |
| **JUVENILE PASSAGE** | | | OOS for winter maintenance since 12/20. RTS is 24 March 2014. | |
| Forebay/bypass conduit differential | N/A | 4.0' - 5.0' | AVG oos | |
| 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 OOS since 12/17/13. RTS is 25 March 2014
**Debris:** N/A
**Maintenance:**
SMF fully winterized, annual maintenance underway. Leaking gasket in the Switch Gate area was replaced by JD Mechanical crew on 2/27.
SMF SCADA PLC is currently undergoing the necessary maintenance/ improvements. ETR is late March.
SMF CCTV replacement has been completed by JD electricians. The picture quality is significantly better with the new cameras, consoles, monitors.
**Research:** None
**Fallbacks:** AVG: 0 MAX: 0 MIN: 0

## OTHER ISSUES:

**JOHN DAY**
**Birds:** See Avian tabs.
122 primary avian lines are properly installed. Three primary and two filler lines are missing; one attaching to Navlock broke on 1/10/14. JD Maintenance had attempted to create a plan for re-installation of all missing lines, but it isn't possible due to the lack of O&M manual. District has been informed.
JD Engineering is attempting to contract out the re-installation of three missing primary lines before 10 April deadline.
**Operations:**
JD North Fishway is in regular service and meeting the optimal FPP criteria.
JD South Fishway returned to service with two AWS turbines on 3/1/14; two out of four floating orifices were activated for this configuration.
All required STSs will be installed the week of 3/24/14; JBS and SMF will be in regular service by 1 April as required by FPP.
JBS collection channel is scheduled to return to service in mid March.
**Maintenance:**
JD South Fishway returned to service with two AWS turbines on 3/1 and the third, # 2 returned on 3/11. Two out of four floating orifices were activated by 3/1; the two others will be activated soon. Kudos to JD Electrical for their fast repair of AWS turbine 2 !
Calibration: 3/7/2014 NE1, NE2 were off by more than 0.3 ' ; a trouble report was written. All other water sensors were within the criteria of 0.3' .
**Research:**
JD Fisheries coordinating with research groups for the upcoming 2014 studies:
U of I Adult Salmonids Radiotelemetry Antennas' repairs were all completed in February; U of I is ready to track/monitor fish passage anytime.
U of I Testing of JD North LPS (Lamprey Passage System) preparing for their passage season's work starting in June 2014.
Battelle's Monitoring of Juvenile Salmonids with Hydroacoustic Tags completed installation of all JD Powerhouse and Spillway hydrophones in February.
Four Battelle's office trailers were installed on the forebay deck in February as well. Testing and fine tuning of receivers underway.
Winter Fish Passage's Video counting by Normandeau (contractor) continues. Regular/ direct counting is starting on 1 April 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:___ 25-Mar-14

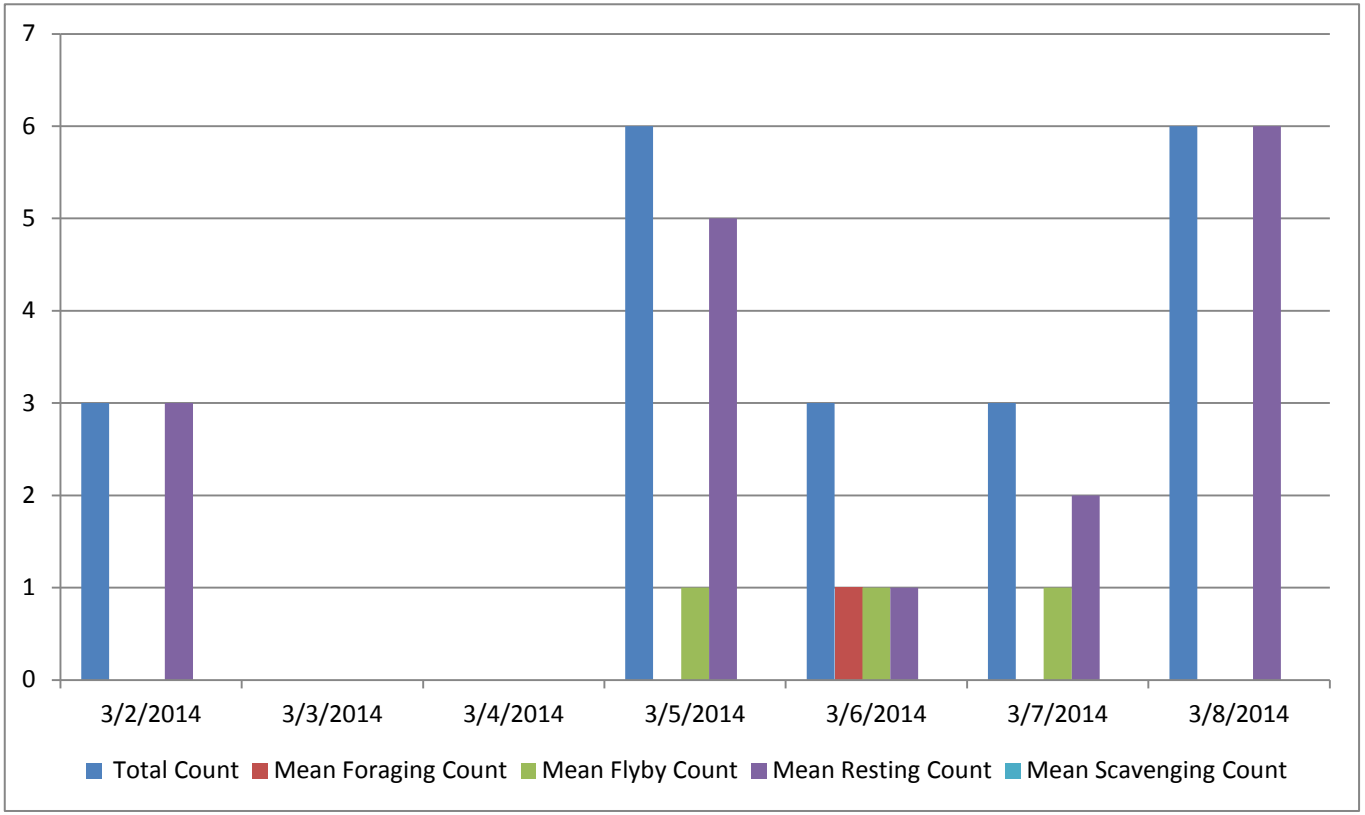

2007-2013 Water Temps JDA w/ 12yr avg
80.00
75.00
70.00
65.00
60.00
55.00
50.00
45.00
40.00
30-Mar
6-Apr
13-Apr
20-Apr
27-Apr
4-May
11-May
18-May
25-May
1-Jun
8-Jun
15-Jun
22-Jun
29-Jun
6-Jul
13-Jul
20-Jul
27-Jul
3-Aug
10-Aug
17-Aug
24-Aug
31-Aug
7-Sep
14-Sep
2013
2012
2011
2010
2009
2008
2007
12 yr Avg

# JDA COLLECTION CHANNEL VELOCITY

**Date** 21-Dec-13
**By:** pkr

| 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 |
|---|---|---|---|---|---|
| 3/2/2014 | 3 | 0 | | 3 | |
| 3/3/2014 | 0 | 0 | | | |
| 3/4/2014 | 0 | 0 | 0 | | |
| 3/5/2014 | 6 | | 1 | 5 | |
| 3/6/2014 | 3 | 1 | 1 | 1 | |
| 3/7/2014 | 3 | 0 | 1 | 2 | |
| 3/8/2014 | 6 | 0 | | 6 | |


John Day Dam
Avian Zones 2013
SWFB
SWT1
SWT2
PHFB
SWT3
PHT1
PHT2
PHT3
1000 ft
200 m

**John Day:**

| | Temp: | | Secchi: | | Fallbacks |
|---|---|---|---|---|---|
| Sun | 40 | | 4.5 | | |
| Mon | 41 | | 4.0 | | |
| Tues | 39 | | 4.0 | | |
| Wed | 39 | | 4.5 | | |
| Thur | 39 | | 4.0 | | |
| Fri | 40 | | 3.5 | | |
| Sat | 40 | | 3.5 | | |
| AVG: | 40.0 | AVG: | 4.0 | AVG | |
| | | | | MAX | |
| | | | | MIN | |

| | NE1 | NE2 | S.Ent | SE1 | N.Ent | JBS Diff | Bay1 | Bay19 |
|---|---|---|---|---|---|---|---|---|
| Sun | 9.3 | 9.2 | 1.0 | 9.1 | 1.4 | oos | 1.4 | 1.3 |
| Sun | 9.5 | 9.4 | 1.1 | 9.5 | 1.4 | oos | 1.2 | 1.2 |
| Mon | 9.2 | 9.1 | 1.0 | 9.2 | 1.5 | oos | 1.4 | 1.4 |
| Mon | | | | | | oos | | |
| Tues | 8.4 | 8.3 | 1.0 | 9.5 | 1.4 | oos | 1.2 | 1.0 |
| Tues | 8.6 | 8.5 | 1.0 | 9.8 | 1.3 | oos | 1.3 | 1.4 |
| Wed | 8.0 | 8.0 | 1.0 | 9.9 | 1.5 | oos | 1.3 | 1.1 |
| Wed | 9.1 | 9.0 | 1.0 | 9.2 | 1.7 | oos | 1.1 | 1.3 |
| Thur | 8.7 | 9.0 | 1.1 | 9.3 | 1.5 | oos | 1.5 | 1.4 |
| Thur | 9.8 | 9.7 | 1.5 | 9.1 | 1.5 | oos | 2.0 | 1.3 |
| Fri | 10.2 | 10.2 | 1.3 | 9.0 | 1.5 | oos | 1.6 | 1.2 |
| Fri | 10.0 | 10.0 | 1.0 | 10.1 | 1.5 | oos | 1.3 | 1.3 |
| Sat | 11.1 | 11.1 | 1.5 | 10.9 | 1.4 | oos | 1.8 | 1.7 |
| Sat | 10.5 | 10.5 | 1.0 | 10.6 | 1.4 | oos | 1.3 | 1.2 |
| AVG: | 9.4 | 9.4 | 1.1 | 9.6 | 1.5 | oos | 1.4 | 1.3 |