


# FISHWAY STATUS REPORT

**Date:** 9/10/2016  
**Inspection Period:** 9/4/2016 thru 9/10/2016



**US Army Corps  
of Engineers**  
Portland District

**JOHN DAY DAM**

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, Mar. 1 - Nov. 30.  
Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

| John Day Dam                        | Inspections     | Criteria       | Total Number of Inspections: 14  | Temperature: 70 F |
|-------------------------------------|-----------------|----------------|--|-------------------|
|                                     | Out of Criteria | Limit          |  | Secchi: 6.0 Ft.   |
| <b>NORTH FISHWAY</b>                |                 |                | In service; 6 AWS pumps available  |                   |
| 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 (DS gauge)         | 0               | 1.0' ± 0.1'    |  |                   |
| Entrance differential               | 0               | 1.0' - 2.0'    | AVG 1.6  |                   |
| <b>SOUTH FISHWAY</b>                |                 |                | In service with two AWS turbines; FOGs # 18 & 19 continue closed                         |                   |
| 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 (US gauge)         | 0               | 1.0' ± 0.1'    |  |                   |
| South entrance differential         | 0               | 1.0' - 2.0'    | AVG 1.4  |                   |
| Entrance weir SE1                   | 0               | depth (≥ 8')   | AVG 8.3  |                   |
| Collection channel velocity         | 0               | 1.5 - 4 fps    | AVG 3.42   |                   |
| N. Entrance PH(Bay 19)differential  | 0               | 1.0' - 2.0'    | AVG 1.4  |                   |
| Entrance weir NE1                   | 0               | depth (≥ 8')   | AVG 8.0  |                   |
| Entrance weir NE2                   | 0               | depth (≥ 8')   | AVG 8.1  |                   |
| <b>JUVENILE PASSAGE</b>             |                 |                | In service with STSs installed since 4/1   |                   |
| Forebay/bypass conduit differential | 0               | 4.0' - 5.0'    | AVG 4.6  |                   |
| Submersible traveling screens       | 0               | visual inspect | STS camera insp. completed on 8/25. Three bad screens replaced with working spares.      |                   |
| Turbine trashrack drawdown          | 0               | <1.5', wkly    | Monthly raking completed by 9/01; very light river debris loads.                         |                   |
| Vert barrier screen drawdown        | 0               | <1.5', wkly    |  |                   |
| Spill volume                        | 0               | N/A            | 2016 Spill season ended 9/1. Bay 2 continues open 1.6 Kcfs for N ladder attraction water |                   |
| Spill pattern                       | 0               | per FPP        |  |                   |
| Turbine Unit Priority               | 0               | per FPP        |  |                   |
| Turbine 1% Efficiency               | 0               | per FPP        |  |                   |

## SMOLT MONITORING FACILITY

### Operation:

In service since 1 April. Returned back to the regular 24 hrs , every second day sampling after river temperature dropped to 69.5 on 9/9/16.

### Maintenance:

No maintenance issues to report. PDS screen cleaners have been working well.

SMF SCADA's investigation by JD Electrical underway. There is a current UFR of \$ 150 K, for the SCADA update's P&S.

### Research:

None

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

### Birds :

see the Avian Numbers tab. No major avian presence/predation at JD since late August.

12 Navlock, 7 Spillway (#77 broke on 8/31), 6 Tower-to-Tower (three new broke on 8/28,) 1 PH (broke on 8/1) lines are missing out of 125 grid's total.

**PDT will reinstall up to 15 critical, missing lines before May 2017; JD Fisheries believes that this will be sufficient for the Avian Grid to remain effective.**

All missing lines will be reinstalled in Phase 2, in the fall of 2017.

### Operations:

JBS and SMF in regular operation since 1 April, as required by FPP.

JD North fishway has been meeting all FPP criteria since 1/5/16.

JD South Fishway in service with two out of three AWS turbines; FOGs 18 & 19 continue closed due to insufficient AWS.

MU Gatewell Drawdowns: Twice a week or more frequently as necessary.

### Maintenance:

JD South Fishway AWS turbine 1 OOS long term due to failed pump's lower bearing.

Calibration: All gauges/ sensors are within the criteria of 0.3' .

### Research:

Washington F&W dam angling / NPM (pikeminnow) removal from JD PH tailrace continues since 5/10/16. **3,002 fish removed by 8/28/16.**

**Dam angling has been suspended since late August due to funding issues. Please, support this very well run and effective program to continue in September!**

JD Fisheries supporting/ coordinating with NW Tribes for adult lamprey trapping and other lamprey research.

Adult Fish Counting by Normandeau Associates continues since 1 April 2016.

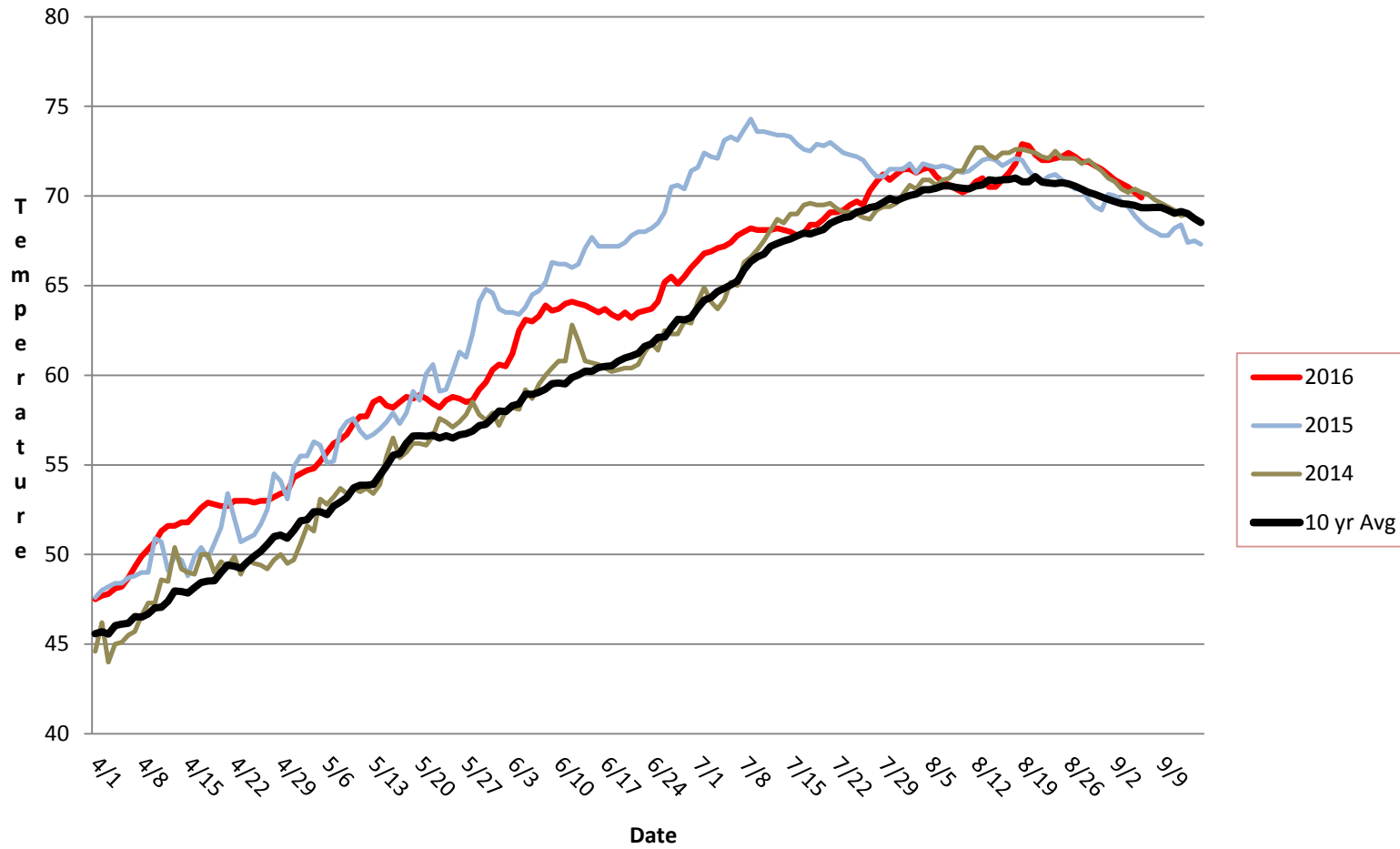
Adult PIT antennas PDT continues developing designs for the next winter outage's installation at both JD Fishways.

**Kevin Moynahan**

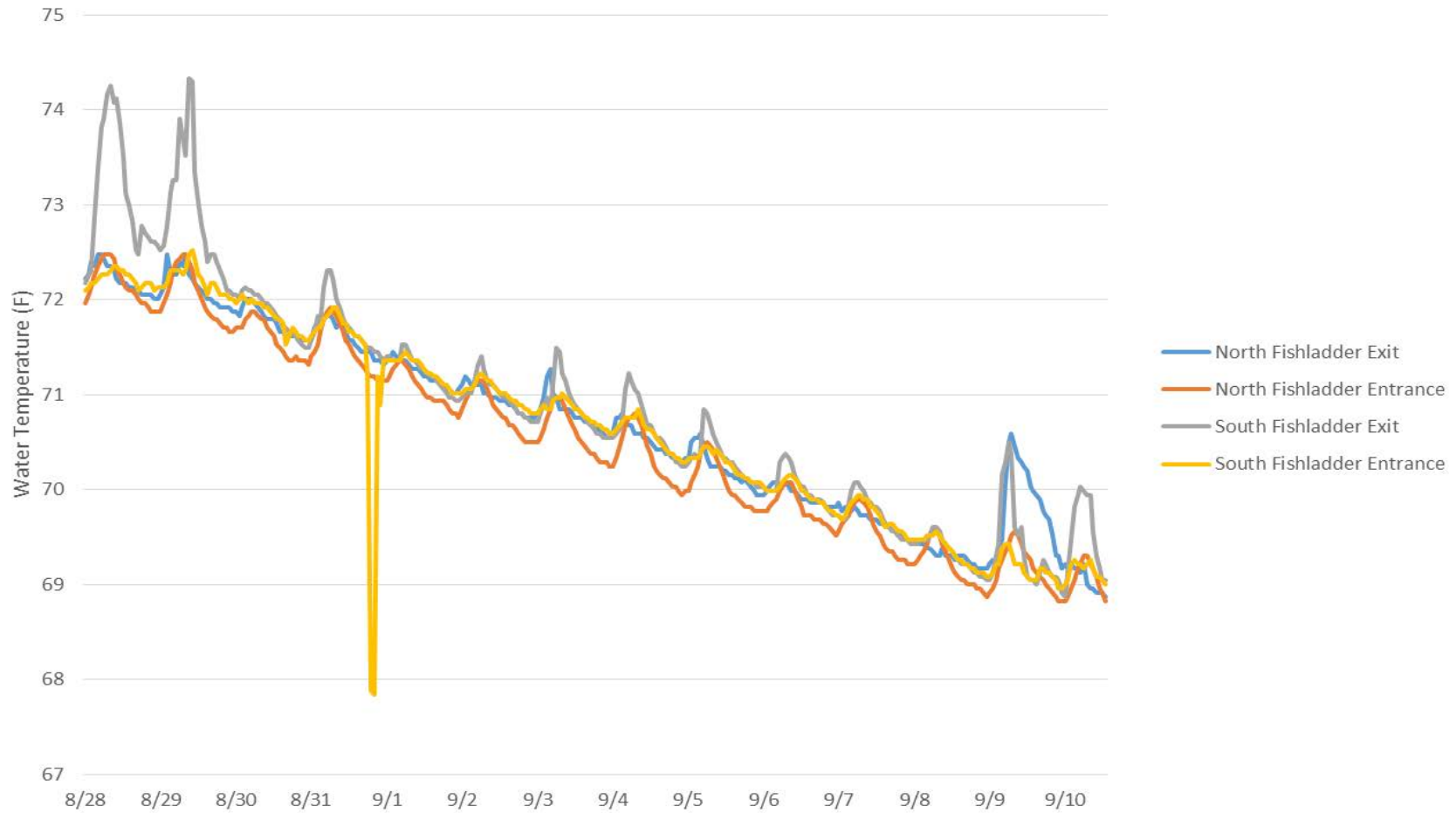
**OPM John Day/Willow Creek Project**

MOYNAHAN, KEVIN, PATRICK, 1393959157  
E-Signed by MOYNAHAN, KEVIN, PATRICK, 1393959157  
VERIFY authenticity with ApproveIt

# JDA SMF Water Temp



John Day Dam North and South Fishladder Water Temperatures (8/28/16 - 9/10/16)



## JDA Collection Channel Velocity

**Date** 10-Sep-16

**By:** MDL

| Bay(s)  | Time | Sec. | Velocity (f/s) |
|---------|------|------|----------------|
| 0-2     | 1:05 | 65   | 2.77           |
| 2 - 4   | 1:57 | 117  | 3.46           |
| 4 - 6   | 2:51 | 171  | 3.33           |
| 6 - 8   | 3:43 | 223  | 3.46           |
| 8 - 10  | 4:34 | 274  | 3.53           |
| 10 - 12 | 5:25 | 325  | 3.53           |
| 12 - 14 | 6:17 | 377  | 3.46           |
| 14 - 16 | 7:10 | 430  | 3.40           |
| 16 - 18 | 7:57 | 477  | 3.83           |
|         |      |      | <b>3.42</b>    |

TW 159.3  
 #2 RPM 60  
 #3 RPM 60



**JDA Bird Counts: 9/4/16 to 9/10/16**  
 F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

| Date  | Zone | Gulls |      |       |       | Cormorant |      |       |       | Caspian tern |      |       |       | White Pelican |      |       |       | Grebe |      |       |       | Total |
|-------|------|-------|------|-------|-------|-----------|------|-------|-------|--------------|------|-------|-------|---------------|------|-------|-------|-------|------|-------|-------|-------|
|       |      | F(1)  | F(2) | NF(1) | NF(2) | F(1)      | F(2) | NF(1) | NF(2) | F(1)         | F(2) | NF(1) | NF(2) | F(1)          | F(2) | NF(1) | NF(2) | F(1)  | F(2) | NF(1) | NF(2) |       |
| 8-Sep | PHFB | 0     | 0    | 2     | 16    | 0         | 0    | 2     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 6     | 0     | 26    |
| 8-Sep | SWFB | 0     | 0    | 34    | 0     | 0         | 0    | 1     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 35    |
| 8-Sep | PH1  | 7     | 0    | 0     | 0     | 0         | 0    | 0     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 7     |
| 8-Sep | PH2  | 0     | 0    | 0     | 0     | 0         | 0    | 0     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 0     |
| 8-Sep | PH3  | 17    | 0    | 0     | 0     | 0         | 0    | 8     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 25    |
| 8-Sep | SW1  | 0     | 0    | 0     | 0     | 3         | 0    | 0     | 1     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 4     |
| 8-Sep | SW2  | 0     | 0    | 0     | 0     | 0         | 0    | 0     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 0     |
| 8-Sep | SW3  | 9     | 0    | 0     | 0     | 0         | 0    | 0     | 0     | 0            | 0    | 0     | 0     | 0             | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 9     |

|                   |           |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |            |
|-------------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|
| <b>Avg/Survey</b> | <b>17</b> | <b>26</b> | <b>2</b> | <b>6</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>106</b> |
|-------------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------|

|       |      |   |   |    |    |   |   |    |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|-------|------|---|---|----|----|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| 9-Sep | PHFB | 0 | 0 | 12 | 12 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 47 |
| 9-Sep | SWFB | 0 | 0 | 39 | 1  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 9-Sep | PH1  | 0 | 0 | 0  | 0  | 0 | 1 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  |
| 9-Sep | PH2  | 0 | 0 | 0  | 0  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |
| 9-Sep | PH3  | 0 | 0 | 0  | 0  | 0 | 0 | 0  | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2  |
| 9-Sep | SW1  | 0 | 0 | 0  | 0  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |
| 9-Sep | SW2  | 0 | 0 | 1  | 0  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  |
| 9-Sep | SW3  | 0 | 0 | 0  | 0  | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |

|                   |          |           |          |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |           |
|-------------------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| <b>Avg/Survey</b> | <b>0</b> | <b>33</b> | <b>1</b> | <b>10</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>3</b> | <b>91</b> |
|-------------------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|

|        |      |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------|------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| 10-Sep | PHFB | 0  | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 7  |
| 10-Sep | SWFB | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6  |
| 10-Sep | PH1  | 0  | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1  |
| 10-Sep | PH2  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |
| 10-Sep | PH3  | 23 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 10-Sep | SW1  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |
| 10-Sep | SW2  | 0  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |
| 10-Sep | SW3  | 9  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9  |

|                   |           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |           |
|-------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| <b>Avg/Survey</b> | <b>17</b> | <b>0</b> | <b>1</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>6</b> | <b>47</b> |
|-------------------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|

| Totals              | Gulls      |            |          |           | Cormorant |          |          |          | Caspian tern |          |          |           | White Pelican |    |   |    | Grebe |  |  |  | Total |
|---------------------|------------|------------|----------|-----------|-----------|----------|----------|----------|--------------|----------|----------|-----------|---------------|----|---|----|-------|--|--|--|-------|
|                     | F          | NF         | F        | NF        | F         | NF       | F        | NF       | F            | NF       | F        | NF        | F             | NF | F | NF |       |  |  |  |       |
| <b>Weekly Total</b> | <b>225</b> | <b>317</b> | <b>7</b> | <b>46</b> | <b>0</b>  | <b>0</b> | <b>9</b> | <b>1</b> | <b>0</b>     | <b>0</b> | <b>0</b> | <b>23</b> | <b>628</b>    |    |   |    |       |  |  |  |       |
| <b>Avg/Survey</b>   | <b>16</b>  | <b>23</b>  | <b>1</b> | <b>3</b>  | <b>0</b>  | <b>0</b> | <b>1</b> | <b>0</b> | <b>0</b>     | <b>0</b> | <b>2</b> | <b>45</b> |               |    |   |    |       |  |  |  |       |

John Day Dam  
Avian Zones





## John Day Weekly Averages

|             | Temp:     | Secchi:    | Fallbacks  |
|-------------|-----------|------------|------------|
| Sun         | 71        | 6.0        |            |
| Mon         | 70        | 6.0        |            |
| Tue         | 70        | 6.0        |            |
| Wed         | 70        | 6.0        |            |
| Thur        | 70        | 6.0        |            |
| Fri         | 69        | 6.0        |            |
| Sat         | 69        | 6.0        |            |
| <b>AVG:</b> | <b>70</b> | <b>6.0</b> | <b>AVG</b> |
|             |           |            | <b>0</b>   |
|             |           |            | <b>MAX</b> |
|             |           |            | <b>0</b>   |
|             |           |            | <b>MIN</b> |

|             | NE1        | NE2        | S.Ent      | SE1        | N.Ent      | JBS Diff   | Bay19      |
|-------------|------------|------------|------------|------------|------------|------------|------------|
| Sun         | 8.0        | 8.0        | 1.4        | 8.8        | 1.5        | 4.6        | 1.5        |
| Sun         | 8.0        | 8.0        | 1.4        | 8.4        | 1.6        | 4.6        | 1.4        |
| Mon         | 8.0        | 8.3        | 1.5        | 8.3        | 1.4        | 4.6        | 1.6        |
| Mon         | 8.0        | 8.1        | 1.5        | 8.0        | 1.4        | 4.6        | 1.4        |
| Tues        | 8.0        | 8.0        | 1.4        | 8.2        | 1.6        | 4.6        | 1.5        |
| Tues        | 8.1        | 8.1        | 1.4        | 8.4        | 1.6        | 4.6        | 1.5        |
| Wed         | 8.0        | 8.0        | 1.5        | 8.2        | 1.5        | 4.5        | 1.3        |
| Wed         | 8.0        | 8.1        | 1.5        | 8.5        | 1.6        | 4.6        | 1.3        |
| Thur        | 8.0        | 8.0        | 1.4        | 8.3        | 1.6        | 4.6        | 1.5        |
| Thur        | 8.1        | 8.0        | 1.4        | 8.1        | 1.6        | 4.6        | 1.3        |
| Fri         | 8.1        | 8.0        | 1.3        | 8.3        | 1.7        | 4.6        | 1.3        |
| Fri         | 8.1        | 8.1        | 1.3        | 8.6        | 1.6        | 4.6        | 1.4        |
| Sat         | 8.0        | 8.0        | 1.3        | 8.6        | 1.5        | 4.6        | 1.3        |
| Sat         | 8.0        | 8.1        | 1.4        | 8.1        | 1.5        | 4.6        | 1.4        |
| <b>AVG:</b> | <b>8.0</b> | <b>8.1</b> | <b>1.4</b> | <b>8.3</b> | <b>1.6</b> | <b>4.6</b> | <b>1.4</b> |