

# FISHWAY STATUS REPORT

Date: 1/21/2017  
 Inspection Period: 1/15/2017 thru 1/21/2017



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 once per day during fish season, Dec. 1 - Feb. 29.  
 Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections	Criteria	Total Number of Inspections:	7	Temperature:	34 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
<b>NORTH FISHWAY</b>	oos		Returned to service on 1/19/17 after its winter maintenance was all completed.			
Exit differential	oos	≤ 0.5'				
Exit Control weirs	oos	High setting	High setting is normal for JDN			
Count station differential	oos	≤ 0.3'				
Weir crest depth (DS gauge)	oos	1.0' ± 0.1'				
Entrance differential	oos	1.0' - 2.0'	AVG	1.4		
<b>SOUTH FISHWAY</b>			On orifice flow/ AWS OOS since 1/20. Its dewatering is on 1/24/17.			
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	8.7		
Collection channel velocity	0	1.5 - 4 fps	AVG	3.64		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.4		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.5		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.5		
<b>JUVENILE PASSAGE</b>			All failed STSs were removed by 1/21/17. The remaining STSs to be removed the next week.			
Forebay/bypass conduit differential	7	4.0' - 5.0'	AVG	#DIV/0!	JBS Tainter Gate immobilized by ice and OOC since 1/12/17.	
Submersible traveling screens	0	visual inspect	MU 3,4,5,6 emergency operation with one failed STS each ended on 1/21/17			
Turbine trashrack drawdown	0	<1.5', wkly	light debris loads			
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	N/A				
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

## SMOLT MONITORING FACILITY

### Operation:

SMF OOS for winter maintenance. RTS in late March with first 24 hrs sampling on 2 April 2017.

### Maintenance:

JBS expansion joint immediately downstream of Tainter Gate was found with its one side, 1/2 metal cover peeled of the wall and dangerously sticking into flow by 2 feet during SMF dewatering on 11/28. JD Structural removed the plate and JBS returned quickly to service the same day. Appears to be a recent failure. The joint will be repaired during winter outage in February/March 2017 and possibly redesigned the following winter, 2018 to increase its long term durability. SMF SCADA update/mods' investigation by JD Electrical underway. The SCADA "As Built's" by JD Electrical starting soon.

### Research:

None

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

### Birds :

see the Avian Numbers tab.

15 Navlock ( # 43 & 58 broke the week of 10/17) 6 Spillway, 6 Tower-to-Tower, 1 PH 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:

**JD STS crane returned to service on 1/15 with a slow hoist speed remaining to be fixed. JD Structural crew started removing all failed STSs on 1/17/17.**

Emergency operation of MU 3, 4, 5 & 9 ended on 1/21/17 after the failed STSs were removed from these turbines.

JD North Fishway returned to service on 19 January 2017.

JD South Fishway on orifice flow/ AWS OOS since 1/20. It is scheduled for dewatering on 1/24/17.

MU Gatewell Drawdowns: weekly or more frequently as necessary.

### Maintenance:

JD South Fishway AWS turbine 1 OOS long term due to failed pump's lower bearing. A possible, temporary "Band-Aid" repair by JD Mechanical this winter but need additional \$ 50K in special funding/ UFR.

**JD STS crane's emergency repairs were completed by 1/15. The crane remains in risky operational condition which requires its replacement with a brand new machine to make it fully reliable. However, the necessary \$ 5 million funding isn't yet available and remains to be obtained...**

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

### Research:

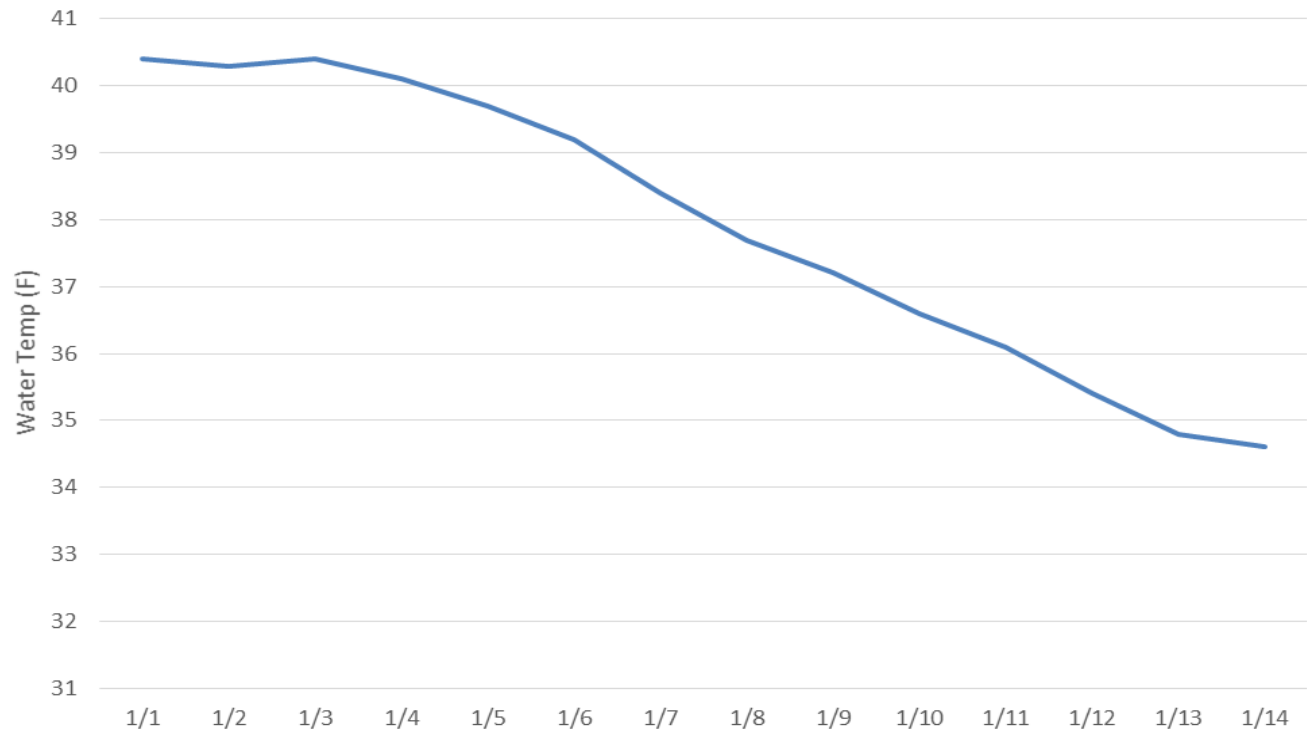
Adult PIT antennas' installation at JD North completed on 1/18/17. Installation work at JD South to start on 1/25.

Kevin Moynahan

OPM John Day/Willow Creek Project

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

JDA Water Temperature



## JDA Collection Channel Velocity

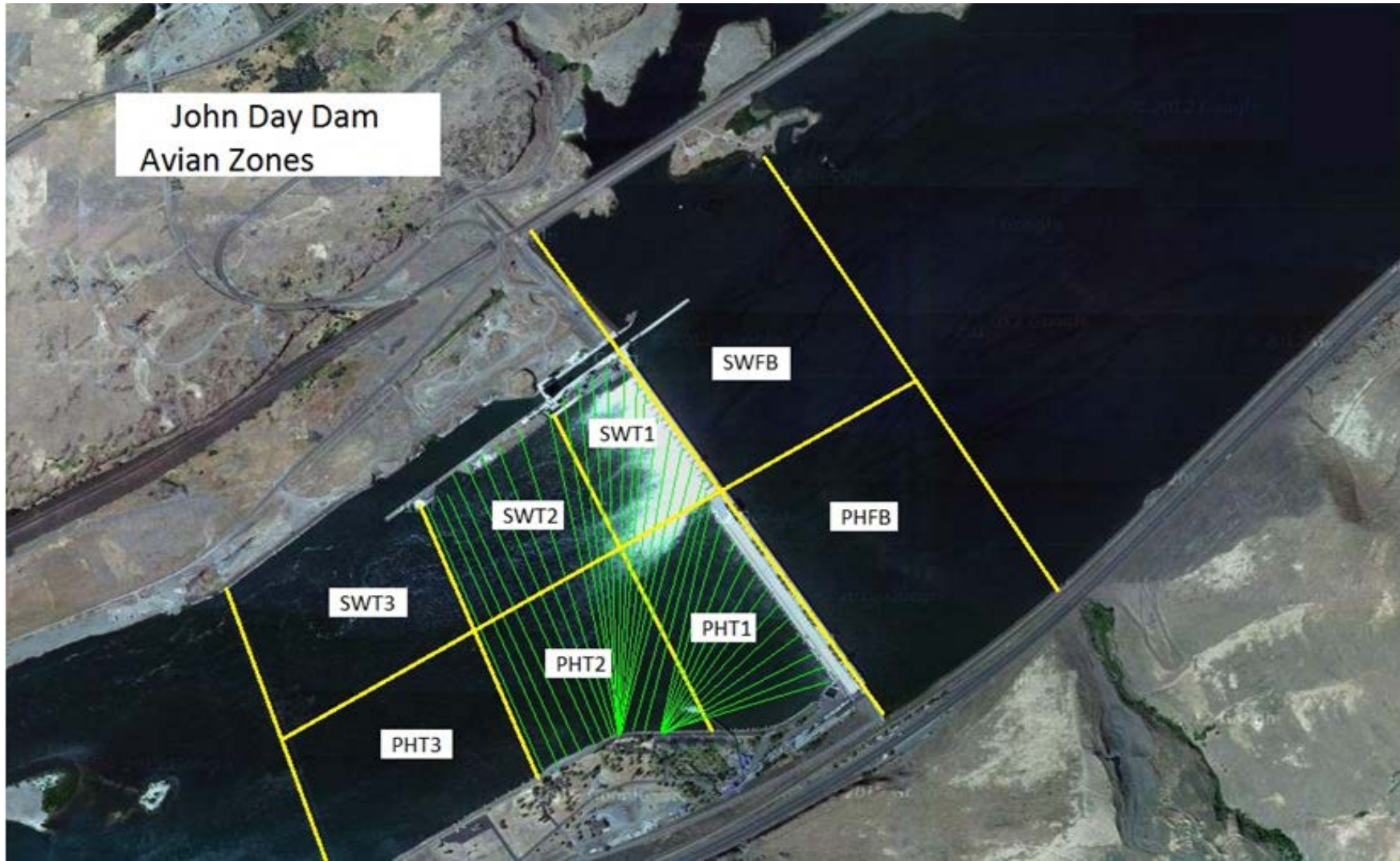
<b>Date</b>	<i>17-Nov-16</i>
<b>By:</b>	<i>MDL</i>

<b>Bay(s)</b>	<b>Time</b>	<b>Sec.</b>	<b>Velocity (f/s)</b>
<i>0-2</i>	<i>0:55</i>	<i>55</i>	<i>3.27</i>
<i>2 - 4</i>	<i>1:41</i>	<i>101</i>	<i>3.91</i>
<i>4 - 6</i>	<i>2:30</i>	<i>150</i>	<i>3.67</i>
<i>6 - 8</i>	<i>3:19</i>	<i>199</i>	<i>3.67</i>
<i>8 - 10</i>	<i>4:09</i>	<i>249</i>	<i>3.60</i>
<i>10 - 12</i>	<i>4:54</i>	<i>294</i>	<i>4.00</i>
<i>12 - 14</i>	<i>5:45</i>	<i>345</i>	<i>3.53</i>
<i>14 - 16</i>	<i>6:36</i>	<i>396</i>	<i>3.53</i>
<i>16 - 18</i>	<i>7:26</i>	<i>446</i>	<i>3.60</i>
			<b>3.64</b>

<b>TW</b>	<b>160.6</b>
-----------	--------------

<b>#1 RPM</b>	<b>OOS</b>
<b>#2 RPM</b>	<b>60</b>
<b>#3 RPM</b>	<b>60</b>

John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	34	6.0	
Mon	34	6.0	
Tue	34	6.0	
Wed	34	6.0	
Thur	34	6.0	
Fri	34	6.0	
Sat	34	6.0	
<b>AVG:</b>	<b>34</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	9.3	9.3	1.5	9.6	oos	oos	1.0
Sun							
Mon	8.0	8.0	1.4	8.2	oos	oos	1.1
Mon							
Tues	8.3	8.4	1.4	8.2	oos	oos	1.6
Tues							
Wed	8.4	8.4	1.5	9.1	oos	oos	1.6
Wed							
Thur	8.3	8.4	1.2	8.4	oos	oos	1.5
Thur							
Fri	oos	oos	oos	oos	1.4	oos	oos
Fri							
Sat	oos	oos	oos	oos	1.4	oos	oos
Sat							
<b>AVG:</b>	<b>8.5</b>	<b>8.5</b>	<b>1.4</b>	<b>8.7</b>	<b>1.4</b>	<b>#DIV/0!</b>	<b>1.4</b>



**JDA Bird Counts: 1/15/17 to 1/21/17**

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)	
15-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	PH1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
15-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jan	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16-Jan	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jan	PH1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
16-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jan	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
17-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jan	PH1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jan	SW2	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
17-Jan	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	1	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
18-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	PH2	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
18-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jan	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11



