

# FISHWAY STATUS REPORT

**Date:** 10/8/2016  
**Inspection Period:** 10/2/2016 thru 10/8/2016



**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:	Temperature:
	Out of Criteria	Limit	14	64 F
			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	1.5
Entrance weir SE1	0	depth (≥ 8')	AVG	8.2
Collection channel velocity	0	1.5 - 4 fps	AVG	3.63
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.3
Entrance weir NE1	0	depth (≥ 8')	AVG	8.1
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 by 9/22. Two bad STSs (MU1& 4) replaced with working spares	
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 9/26; 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:**

Sampling season ended on 9/15; SMF will continue in bypass for the full flow PIT tags detections until 24 November.

**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. Various bird species feeding on the abundant juvenile shad.

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:**

SMF in bypass for PIT tag detections since 15 September.

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: weekly 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 completed in late August due to lack of funding. 3,002 NPM removed by 8/28/16

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 Approved



## JDA Collection Channel Velocity

<b>Date</b>	<i>7-Oct-16</i>
<b>By:</b>	<i>PR/ML</i>

<b>Bay(s)</b>	<b>Time</b>	<b>Sec.</b>	<b>Velocity (f/s)</b>
<i>0-2</i>	<i>1:09</i>	<i>69</i>	<i>2.61</i>
<i>2 - 4</i>	<i>1:55</i>	<i>115</i>	<i>3.91</i>
<i>4 - 6</i>	<i>2:43</i>	<i>163</i>	<i>3.75</i>
<i>6 - 8</i>	<i>3:33</i>	<i>213</i>	<i>3.60</i>
<i>8 - 10</i>	<i>4:19</i>	<i>259</i>	<i>3.91</i>
<i>10 - 12</i>	<i>5:07</i>	<i>307</i>	<i>3.75</i>
<i>12 - 14</i>	<i>5:57</i>	<i>357</i>	<i>3.60</i>
<i>14 - 16</i>	<i>6:45</i>	<i>405</i>	<i>3.75</i>
<i>16 - 18</i>	<i>7:32</i>	<i>452</i>	<i>3.83</i>
			<b>3.63</b>

TW	159.3
#2 RPM	60
#3 RPM	60

**JDA Bird Counts: 10/2/16 to 10/8/16**

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

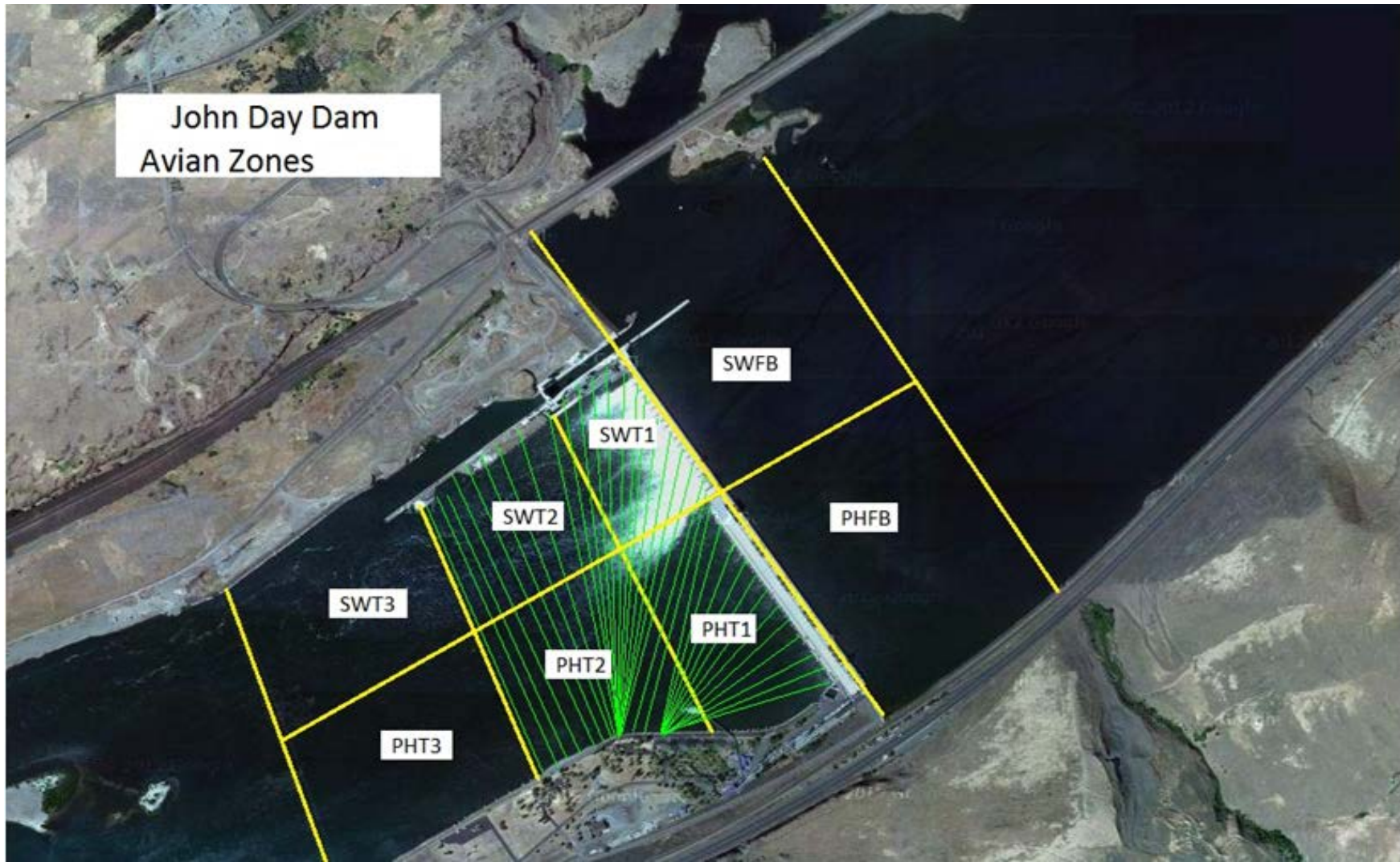
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
2-Oct	PHFB	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
2-Oct	SWFB	0	0	96	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	216
2-Oct	PH1	1	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
2-Oct	PH2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
2-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Oct	SW3	0	0	0	0	0	0	14	30	0	0	0	0	0	0	0	0	0	0	0	0	44
Avg/Survey		5		108		3		35		0		0		0		0		0		0		301
3-Oct	PHFB	0	0	158	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	19	0	196
3-Oct	SWFB	0	0	0	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184
3-Oct	PH1	4	5	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
3-Oct	PH2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
3-Oct	PH3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
3-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Oct	SW3	0	0	0	0	0	0	38	27	0	0	0	0	0	0	0	0	0	0	0	0	65
Avg/Survey		12		171		2		42		0		0		0		0		0		10		473
4-Oct	PHFB	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
4-Oct	SWFB	0	0	144	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254
4-Oct	PH1	3	5	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
4-Oct	PH2	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
4-Oct	PH3	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Oct	SW3	0	0	0	0	0	0	30	45	0	0	0	0	0	0	0	0	0	0	0	0	75
Avg/Survey		14		127		4		49		0		0		0		0		0		0		386
5-Oct	PHFB	0	0	149	165	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3	0	324
5-Oct	SWFB	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
5-Oct	PH1	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
5-Oct	PH2	1	8	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
5-Oct	PH3	6	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	19
5-Oct	SW1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		18		180		1		7		0		0		0		0		4		2		420

**JDA Bird Counts: 10/2/16 to 10/8/16**

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)	
6-Oct	PHFB	0	0	187	400	0	0	0	0	0	0	0	0	0	0	0	0	0	5	37	15	644
6-Oct	SWFB	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	49
6-Oct	PH1	8	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
6-Oct	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Oct	PH3	12	48	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
6-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Oct	SW2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		50		323		0	0			0	0			0	0			3		27		803
7-Oct	PHFB	0	0	0	140	0	0	0	0	0	0	0	23	0	0	0	0	9	0	60	45	277
7-Oct	SWFB	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
7-Oct	PH1	25	11	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
7-Oct	PH2	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
7-Oct	PH3	0	2	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	19
7-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		31		82		1	9			0	12			0	0			5		53		381
8-Oct	PHFB	0	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	59	0	158
8-Oct	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Oct	PH1	10	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
8-Oct	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Oct	SW1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		5		45		5	0			0	0			0	0			5		30		177
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F	NF			F	NF			F	NF			F	NF			F	NF			
<b>Weekly Total</b>		266	2069			30	282			0	23			0	0			31	240			2941
<b>Avg/Survey</b>		19	148			2	20			0	2			0	0			2	17			210

John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	64	6.0	
Mon	64	6.0	
Tue	64	6.0	
Wed	64	6.0	
Thur	64	6.0	
Fri	64	6.0	
Sat	64	6.0	
<b>AVG:</b>	<b>64</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	8.2	8.2	1.5	8.6	1.6	4.6	1.5
Sun	8.0	8.0	1.6	8.4	1.5	4.6	1.4
Mon	8.0	8.0	1.6	8.2	1.6	4.5	1.3
Mon	8.1	8.1	1.5	8.2	1.5	4.6	1.4
Tues	8.6	8.1	1.5	8.1	1.5	4.6	1.4
Tues	8.2	8.2	1.4	8.5	1.6	4.6	1.3
Wed	8.0	8.0	1.6	8.0	1.4	4.7	1.5
Wed	8.2	8.6	1.5	8.1	1.4	4.6	1.2
Thur	8.1	8.0	1.6	8.0	1.7	4.7	1.2
Thur	8.1	8.0	1.3	8.2	1.6	4.3	1.3
Fri	8.1	8.0	1.4	8.1	1.5	4.6	1.4
Fri	8.1	8.1	1.6	8.2	1.7	4.6	1.2
Sat	8.2	8.2	1.5	8.2	1.6	4.6	1.4
Sat	8.1	8.0	1.7	8.1	1.7	4.6	1.2
<b>AVG:</b>	<b>8.1</b>	<b>8.1</b>	<b>1.5</b>	<b>8.2</b>	<b>1.6</b>	<b>4.6</b>	<b>1.3</b>