


# FISHWAY STATUS REPORT

**Date:** 11/23/2019  
**Inspection Period:** 11/17/2019 thru 11/23/2019



**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 passage season, Mar. 1 - Nov. 30.  
 Additional and frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 14	Temperature: 50 F
				Secchi: 6.0 Ft.
<b>NORTH FISHWAY</b>			In service with 4 out of 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 1.5	
<b>SOUTH FISHWAY</b>			2 out of 3 AWS turbines in service	
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 8.1	
Collection channel velocity	0	1.5 - 4 fps	AVG 2.55	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.6	
Entrance weir NE1	0	depth (≥ 8')	AVG 8.8	
Entrance weir NE2	0	depth (≥ 8')	AVG 9.4	
<b>JUVENILE PASSAGE</b>				
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	MU16 VBS found with small tear on 11/14. It was repaired by 11/18.	
Turbine trashrack drawdown	0	<1.5', wkly	N/A Trashrack raking scheduled for the last week of November. Some visible debris in FB.	
Vert barrier screen drawdown	0	<1.5', wkly	MUs 2, 4, 5, 8, 9 gatewells found with excessive debris 11/12. All debris removed 11/13.	
Spill volume	0	per FPP	1.6 Kcfs at bay 2 during daylight hours only	
Spill pattern	0	per FPP	Bay 2 open at 1.6K during daylight hours for adult attraction to North Entrance until 11/30.	
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

## SMOLT MONITORING FACILITY

### Operation:

SMF in bypass for the pit detection only since 9/15; its end-of-season dewatering is scheduled for 11/26.

### Maintenance:

No maintenance issues of any kind at this time. Planning for the upcoming winter's SCADA update underway.

Research: None

## ADULT FISHWAYS & TW AVIAN GRID

### Birds:

Winter birds only without much impact on fish passage. See Bird Count tab for details.

All 125 avian lines in place without any deficiencies.

### Operations:

MU 16 VBS found with a small hole/ tear in its mesh on 11/14. VBS was repaired and MU 16 returned to service on 11/18.

November STS/ VBS camera inspection complete by 11/21. All screens were found undamaged and working properly.

JD South Adult Fishway maintaining criteria with 2 AWS Turbines. Turbine 3 is currently under maintenance and will return to service by 1 March 2020.

JD North Fishway continues operating in criteria with 2 out of 6 pumps in service. Pumps # 3 & 4 are OOS and will be repaired by 1 March 2020.

JD North is scheduled for its annual dewatering on 12/2/19.

MU Gatewell Drawdown All MUs trashrack differentials are 1.5' or below according to twice a week inspections.

### Maintenance:

Excessive debris found at gatewells of MU 2, 4, 5, 8 & 9 on 11/12. JD Maintenance removed it on 11/13.

JD South Fishway continues operating with two AWS turbines ( No. 1 & 2) since early April. AWS turbine No. 3 waiting for the replacement of its thrust bearing which is on order/ in contracting ( at approx. \$ 20 K.)

JD North Fishway continues operating in criteria. However, 2 out of 6 ASW pumps are OOS due to auto greaser and oil leaks issues since mid June.

JD Maintenance unstacked pumps 3 & 4 during the trouble shooting efforts in August - September. Both pumps are expected to be available for service, for 2020 passage season starting on 1 March.

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

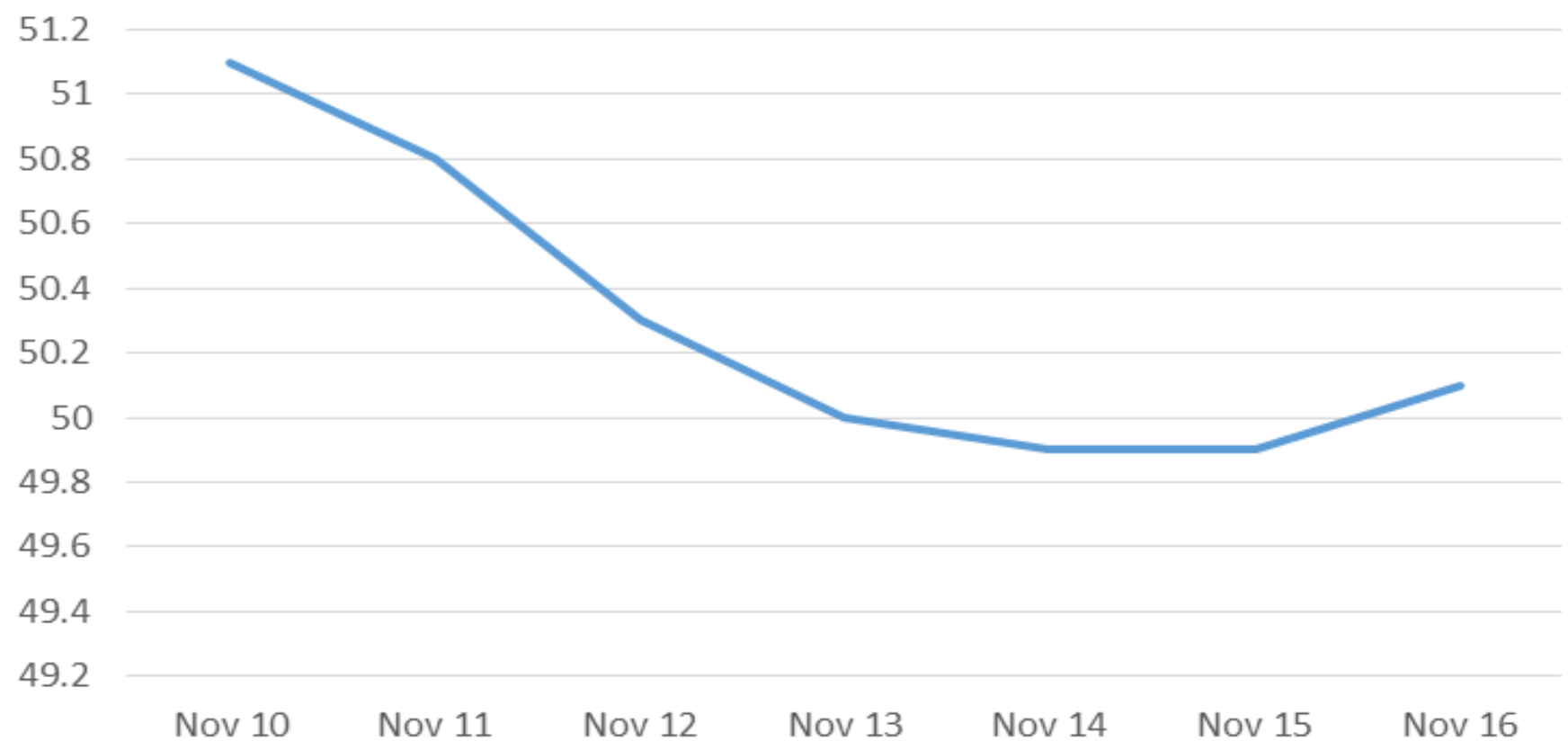
### Research:

JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

Uof I crew continues monitoring the RT Adult Lamprey passage at both JD Adult Fishways.

Approved by: Ron Twiner, Acting OPM

### JDA Tailwater Temperature 11/10/19 - 11/16/19





## JDA Collection Channel Velocity

<b>Date</b>	<i>16-Nov-19</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>1:24</i>	<i>84</i>	<i>2.14</i>
<i>2 - 4</i>	<i>2:37</i>	<i>157</i>	<i>2.47</i>
<i>4 - 6</i>	<i>3:50</i>	<i>230</i>	<i>2.47</i>
<i>6 - 8</i>	<i>5:04</i>	<i>304</i>	<i>2.43</i>
<i>8 - 10</i>	<i>6:13</i>	<i>373</i>	<i>2.61</i>
<i>10 - 12</i>	<i>7:19</i>	<i>439</i>	<i>2.73</i>
<i>12 - 14</i>	<i>8:30</i>	<i>510</i>	<i>2.54</i>
<i>14 - 16</i>	<i>9:36</i>	<i>576</i>	<i>2.73</i>
<i>16 - 18</i>	<i>10:39</i>	<i>639</i>	<i>2.86</i>
			<b>2.55</b>

Tail Water	Level	160.0
Turbines 1 & 2	RPM	68

FPP Criteria: 1.5–4.0 feet per second (2 fps optimum)

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	50	6.0	NA
Mon	50	6.0	NA
Tue	50	6.0	NA
Wed	50	6.0	NA
Thur	50	6.0	NA
Fri	50	6.0	NA
Sat	50	6.0	NA
<b>AVG:</b>	<b>50.0</b>	<b>AVG: 6.0</b>	<b>AVG/Sample #DIV/0!</b>
			<b>MAX 0</b>
			<b>MIN 0</b>

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	9.4	10.0	1.4	8.2	1.5	4.5	1.6
Sun	9.4	9.9	1.4	8.0	1.5	4.5	1.6
Mon	8.9	9.4	1.6	8.0	1.4	4.6	1.5
Mon	8.9	9.4	1.4	8.2	1.4	4.6	1.7
Tues	8.5	9.1	1.5	8.0	1.4	4.6	1.7
Tues	8.2	8.7	1.4	8.1	1.5	4.5	1.8
Wed	8.8	9.4	1.5	8.0	1.5	4.6	1.7
Wed	9.3	9.9	1.5	8.0	1.4	4.6	1.6
Thur	8.9	9.5	1.4	8.0	1.6	4.6	1.5
Thur	8.9	9.5	1.5	8.2	1.5	4.5	1.4
Fri	8.2	8.7	1.2	8.0	1.5	4.6	1.7
Fri	8.8	9.1	1.4	8.3	1.6	4.6	1.6
Sat	8.8	9.3	1.4	8.5	1.5	4.6	1.4
Sat	8.7	9.2	1.4	8.0	1.7	4.6	1.5
<b>AVG:</b>	<b>8.8</b>	<b>9.4</b>	<b>1.4</b>	<b>8.1</b>	<b>1.5</b>	<b>4.6</b>	<b>1.6</b>



**JDA Bird Counts: 11/10/19 to 11/16/19**

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)	
10-Nov	PHFB	0	0	0	0	0	0	15	18	0	0	0	0	0	0	0	0	57	0	0	0	90
10-Nov	SWFB	0	0	833	867	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1700
10-Nov	PH1	0	115	0	13	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139
10-Nov	PH2	34	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
10-Nov	PH3	10	5	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
10-Nov	SW1	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
10-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Nov	SW3	0	0	0	0	0	4	27	43	0	0	0	0	0	0	0	0	0	0	0	0	74
Avg/Survey		93		875		8		52		0		0		0		0		29		0		2111
11-Nov	PHFB	0	0	0	52	0	0	15	0	0	0	0	0	0	0	0	0	47	68	0	0	182
11-Nov	SWFB	0	0	856	913	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1769
11-Nov	PH1	41	67	0	12	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135
11-Nov	PH2	23	23	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
11-Nov	PH3	17	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27
11-Nov	SW1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
11-Nov	SW2	0	0	0	0	0	0	37	37	0	0	0	0	0	0	0	0	0	0	0	0	74
11-Nov	SW3	0	0	0	0	0	0	45	18	0	0	0	0	0	0	0	0	0	0	0	0	63
Avg/Survey		91		917		11		76		0		0		0		0		58		0		2302
12-Nov	PHFB	0	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	73	2	0	0	203
12-Nov	SWFB	0	0	356	354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	710
12-Nov	PH1	38	11	0	0	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
12-Nov	PH2	7	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
12-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Nov	SW1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12-Nov	SW2	0	0	0	0	2	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	23
12-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		36		419		7		11		0		0		0		0		38		0		1020
13-Nov	PHFB	0	0	11	0	0	0	22	11	0	0	0	0	0	0	0	0	0	47	0	0	91
13-Nov	SWFB	0	0	611	640	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1251
13-Nov	PH1	63	10	0	5	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85
13-Nov	PH2	27	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
13-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Nov	SW1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
13-Nov	SW2	0	2	0	0	0	0	15	27	0	0	0	0	0	0	0	0	0	0	0	0	44
13-Nov	SW3	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Avg/Survey		62		634		5		41		0		0		0		0		24		0		1528



**JDA Bird Counts: 11/10/19 to 11/16/19**

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)	
14-Nov	PHFB	0	0	5	0	0	0	24	8	0	0	0	0	0	0	0	0	11	7	0	0	55
14-Nov	SWFB	0	0	531	617	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1148
14-Nov	PH1	72	17	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93
14-Nov	PH2	22	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
14-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Nov	SW2	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	17
14-Nov	SW3	0	0	0	0	0	0	11	14	0	0	0	0	0	0	0	0	0	0	0	0	25
Avg/Survey		61		577		2		37		0		0		0		0		9		0		1371
15-Nov	PHFB	0	0	0	45	0	0	7	5	0	0	0	0	0	0	0	0	14	7	0	0	78
15-Nov	SWFB	0	0	931	503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1434
15-Nov	PH1	73	37	0	0	9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	124
15-Nov	PH2	43	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
15-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	SW2	0	0	0	0	0	0	4	49	0	0	0	0	0	0	0	0	0	0	0	0	53
15-Nov	SW3	0	0	0	7	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	23
Avg/Survey		84		743		7		41		0		0		0		0		11		0		1770
16-Nov	PHFB	0	0	94	35	0	0	39	2	0	0	0	0	0	0	0	0	0	0	0	0	170
16-Nov	SWFB	0	0	489	496	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	985
16-Nov	PH1	41	23	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
16-Nov	PH2	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
16-Nov	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Nov	SW2	0	0	0	0	0	0	0	46	0	0	0	0	0	0	0	0	0	0	0	0	46
16-Nov	SW3	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Avg/Survey		40		557		8		52		0		0		0		0		0		0		1312
<b>Totals</b>		<b>Gulls</b>				<b>Cormorant</b>				<b>Caspian tern</b>				<b>White Pelican</b>				<b>Grebe</b>				<b>Total</b>
		F		NF		F		NF		F		NF		F		NF		F		NF		
<b>Weekly Total</b>		931		9441		92		617		0		0		0		0		333		0		11414
<b>Avg/Survey</b>		67		674		7		44		0		0		0		0		24		0		815

John Day Dam  
Avian Zones

