


# FISHWAY STATUS REPORT

**Date:** 8/20/2016  
**Inspection Period:** 8/14/2016 thru 8/20/2016



**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: 71 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	Changed back to High setting on 7/21 (sockeye #s have declined.)	
Count station differential	0	≤ 0.3'		
Weir crest depth (DS gauge)	0	1.0' ± 0.1'	Changed back to the Salmon criteria of 1.0' on 7/21.	
Entrance differential	0	1.0' - 2.0'	AVG 1.5	
<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'	Changed back to the Salmon criteria of 1.0' on 7/18.	
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 3.71	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.4	
Entrance weir NE1	0	depth (≥ 8')	AVG 8.2	
Entrance weir NE2	0	depth (≥ 8')	AVG 8.2	
<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	Next STS camera inspection scheduled for the week of 8/22/16.	
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 8/29; very light river debris loads.	
Vert barrier screen drawdown	0	<1.5', wkly		
Spill volume	0	N/A	2016 Spill season continues since 4/10/16; two TSWs in bays 18 & 19 in service	
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. The limited, two days a week, 6 hrs sampling since 7/27 due to river temp. over 70 F.

### 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. Until this year, our internal focus had been on gulls in the tailrace BRZ, but the white pelicans are catching up quickly.

12 Navlock, 5 Spillway (2 new broke on 7/30), 3 Tower-to-Tower, 2 PH (broke on 8/1) lines are missing out of 125 grid's total.

No increased gull predation in spite the missing lines/large gaps in the tailrace Avian Array in 2016 !!!

New in April 2016, the JD Avian Lines Improvements' PDT will assess their reliability and design a better/ cheaper methods for their maintenance.

USDA boat avian hazing ended on 8/11/2016.

### Operations:

JBS and SMF in regular operation since 1 April, as required by FPP. Limited, two days a week sampling since 7/27 due to river temp over 70 F.

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. Received \$100K UFR for AWS pumps' repair on 5/18.

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. 2,967 fish removed by 8/14/16.

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.

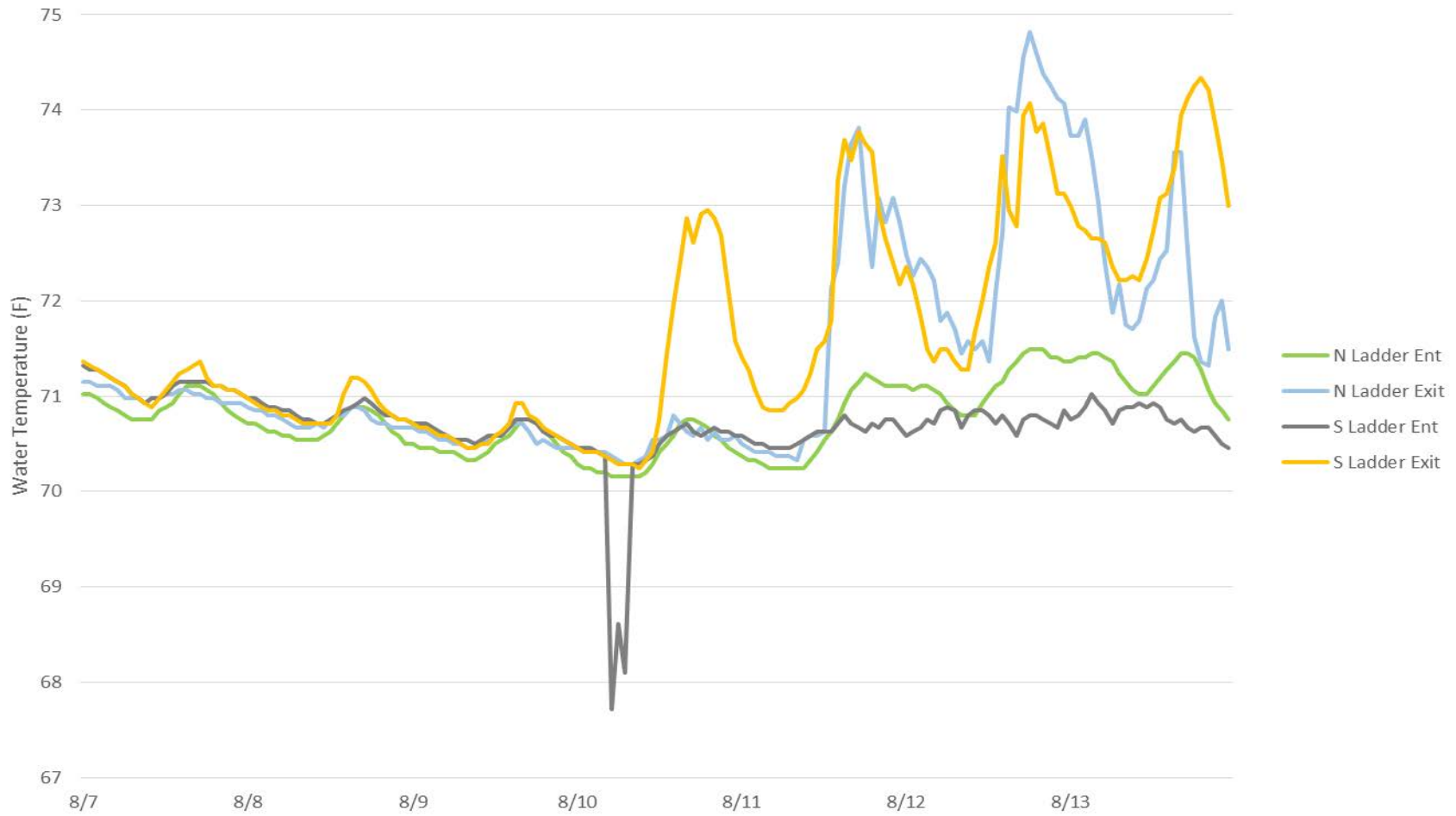
Adult PIT antennas PDT continues developing designs for the next winter outage's installation at both JD Fishways.

Kevin Moynahan

OPM John Day/Willow Creek Project

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

North and South Fishladder Water Temps at John Day Dam 8/7/16 - 8/13/16



## JDA Collection Channel Velocity

Date 12-Aug-16

By: MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	0:57	57	3.16
2 - 4	1:40	100	4.19
4 - 6	2:31	151	3.53
6 - 8	3:18	198	3.83
8 - 10	4:06	246	3.75
10 - 12	4:50	290	4.09
12 - 14	5:41	341	3.53
14 - 16	6:33	393	3.46
16 - 18	7:20	440	3.83
			<b>3.71</b>

TW 159.9  
 #1 RPM 60  
 #2 RPM 60

**JDA Bird Counts: 8/14/16 to 8/20/16**

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)	
14-Aug	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14-Aug	SWFB	0	0	23	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
14-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4
14-Aug	PH2	0	39	0	0	0	0	0	0	0	0	0	0	10	13	0	0	0	0	0	0	62
14-Aug	PH3	13	3	0	0	0	0	0	0	0	0	0	0	4	11	41	0	0	0	0	0	72
14-Aug	SW1	0	0	0	0	0	1	0	0	0	0	0	0	7	0	0	0	0	0	0	0	8
14-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	19	9	23	0	0	0	0	0	51
14-Aug	SW3	12	0	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	0	0	0	36
Avg/Survey		34		25		1		0		0		0		51		32		0		0		282
15-Aug	PHFB	0	0	4	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8
15-Aug	SWFB	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
15-Aug	PH1	0	53	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	58
15-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	13	5	0	0	0	0	0	0	18
15-Aug	PH3	4	0	0	0	0	0	0	0	0	0	0	0	5	0	32	23	0	0	0	0	64
15-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
15-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	13	17	37	0	0	0	0	0	67
15-Aug	SW3	3	0	0	0	0	0	0	0	0	0	0	0	17	7	12	0	0	0	0	0	39
Avg/Survey		30		23		0		1		0		0		42		52		0		0		295
16-Aug	PHFB	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
16-Aug	SWFB	0	0	40	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
16-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	0	0	0	20
16-Aug	PH3	19	23	0	0	0	0	0	0	0	0	0	0	23	0	39	38	0	0	0	0	142
16-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	27	0	0	0	0	0	34
16-Aug	SW3	2	12	0	0	0	0	0	0	0	0	0	0	18	2	13	0	0	0	0	0	47
Avg/Survey		28		26		0		1		0		0		35		59		0		0		297
17-Aug	PHFB	3	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6
17-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
17-Aug	PH2	5	0	0	0	0	0	0	0	0	0	0	0	6	9	0	0	0	0	0	0	20
17-Aug	PH3	3	3	0	0	0	0	0	0	0	0	0	0	5	4	0	0	0	0	0	0	15
17-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	0	10
17-Aug	SW2	17	9	0	0	0	0	0	0	0	0	0	0	39	15	0	0	0	0	0	0	80
17-Aug	SW3	6	8	0	0	0	0	0	0	0	0	0	0	16	11	0	0	0	0	0	0	41
Avg/Survey		27		1		0		0		0		0		59		0		0		0		174



John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	70	6.0	
Mon	70	6.0	
Tue	70	6.0	
Wed	71	6.0	
Thur	71	6.0	
Fri	72	6.0	
Sat	73	6.0	
<b>AVG:</b>	<b>71</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	8.4	8.4	1.6	8.2	1.6	4.6	1.3
Sun	8.1	8.4	1.3	8.5	1.5	4.6	1.3
Mon	8.3	8.2	<b>1.4</b>	8.2	1.7	4.6	1.3
Mon	8.1	8.2	1.5	8.8	1.5	4.6	1.4
Tues	8.2	8.3	1.1	8.0	1.5	4.3	1.2
Tues	8.2	8.0	1.5	8.1	1.8	4.6	1.3
Wed	8.2	8.1	1.4	8.6	1.5	4.6	1.5
Wed	8.3	8.2	1.3	8.1	1.4	4.8	1.4
Thur	8.1	8.3	1.3	8.7	1.5	4.6	1.4
Thur	8.2	8.3	1.4	8.2	1.5	4.6	1.5
Fri	8.1	8.2	1.5	8.2	1.6	4.6	1.5
Fri	8.1	8.2	1.4	8.1	1.5	4.6	1.6
Sat	8.1	8.0	1.4	8.2	1.7	4.6	1.5
Sat	8.3	8.3	1.3	8.2	1.4	4.5	1.6
<b>AVG:</b>	<b>8.2</b>	<b>8.2</b>	<b>1.4</b>	<b>8.3</b>	<b>1.6</b>	<b>4.6</b>	<b>1.4</b>