

# FISHWAY STATUS REPORT

Date: 12/22/2018  
 Inspection Period: 12/16/2018 thru 12/22/2018

## JOHN DAY DAM



US Army Corps  
 of Engineers  
 Portland District

JD/WC Project-Fisheries  
 P.O. Box 823  
 Rufus, Oregon 97050  
 Phone: 541-506-7860

All JD Fishways are inspected once per day during winter maintenance, Dec. 1 - Feb. 28.  
 Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections	Criteria	Total Number of Inspections:	7	Temperature:	45 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
<b>NORTH FISHWAY</b>			OOS since 11/30. Winter maintenance activities underway. RTS in mid-January 2019.			
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	#DIV/0!		
<b>SOUTH FISHWAY</b>	0		In service with two AWS turbines and two FOGs. Planned dewatering in mid- January 2019.			
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	8.2		
Collection channel velocity	0	1.5 - 4 fps	AVG	2.69		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.6		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.5		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.5		
<b>JUVENILE PASSAGE</b>	0		In service since 2/28.			
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG	4.6		
Submersible traveling screens	0	visual inspect	STS removal started on 12/16 after JBS season ended on 12/15.			
Turbine trashrack drawdown	0	<1.5', wkly	Trashrack and VBS differentials are below the criterion of 1.5'.			
Vert barrier screen drawdown	0	<1.5', wkly	Trashrack and VBS differentials are below the criterion of 1.5'.			
Spill volume	0	per FPP	Bay 2 spill ended on 12/1. No fish spill of any kind occurs until April 2019.			
Spill pattern	0	per FPP	N/A			
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

## SMOLT MONITORING FACILITY

### Operation:

End of season SMF dewatering was successfully accomplished on 11/28 PM. Estimated 60 adult chinook, 15 steelhead, 2 lamprey, 2 sturgeon, 20 cats along with a few minor resident species were safely evacuated via the Fish Drain Pipe and JBS outfall into the river. Thanks to Erin and Greg Kovalchuk for assistance! Fish Drain Pipe was left with auxiliary flow to assure the all lamprey were evacuated. The flow will be shut down the next week. Winterization of SMF Building along with the Auxiliary Water Supply pipes and valves completed by 12/10.

### Maintenance:

SMF SCADA update/mods' by JD Electrical/ Portland District Engineers is underway. Estimated completion by the end of February 2019.

Fallbacks:           AVG:   0                   MAX:   0                   MIN:   0

Typical fall water birds feeding on the abundant juvenile shad. See Avian Numbers tab for details.

All 125 avian lines in place without any deficiencies.

### Operations:

JD North Fishway OOS since 11/30 with AWS pumps shut down after sunset. Its upper section was successfully dewatered on 12/3 PM. After a prolonged flushing of the ladder only 1 STH J and 3 Sturgeon were bagged and released into tailrace in good condition during the fish salvage operation. A few sturgeon and shad found in the lower section were pushed into lower pool.

JD North Lower Ladder/ Entrance was dewatered to below diffuser gratings' level on 12/6. 1 STH J and 8 A lamprey were bagged and released into tailrace in good condition.

JD South Fishway in service, with two AWS turbines and two FOGs since 2/28/18. Awaiting special funding to overhaul turbines 1 & 2 ( \$ 3 million each.)

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

### Maintenance:

JD North Adult Fishway winter maintenance underway. LPS permanent water supply and other improvements contract underway.

JD South AWS turbine 1 is OOS, in poor condition and urgently awaiting its overhaul as soon as \$ 3 million becomes available (hopefully in a year or two ?)

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

### Research:

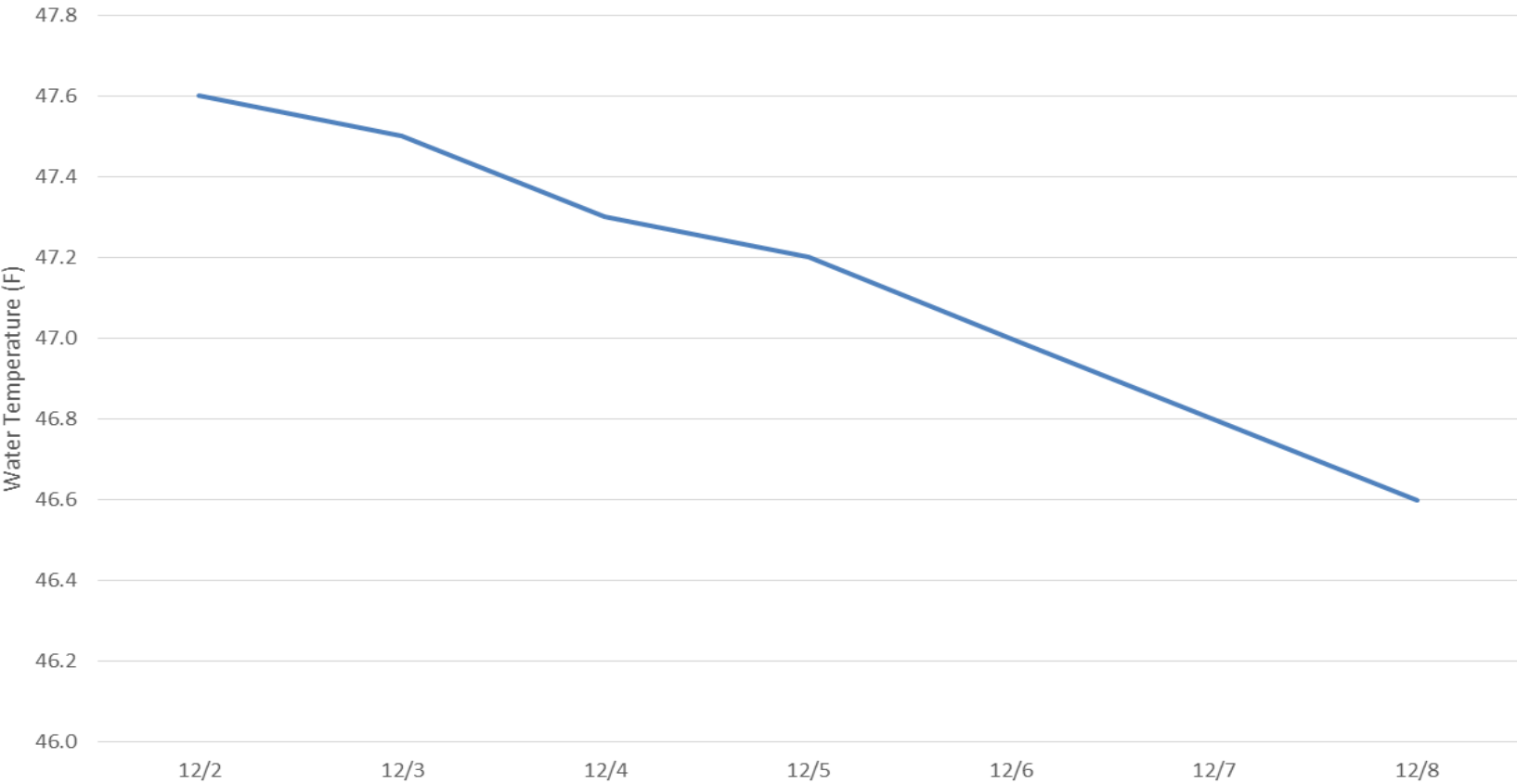
JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

WDFW NPM angling concluded 10/07/18 with a respectable seasonal total of 3,089 NPM removed.

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

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

JDA Tailwater Temperature (12/2/18 - 12/8/18)



## JDA Collection Channel Velocity

**Date** 8-Nov-18

**By:** MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:04	64	2.81
2 - 4	2:14	134	2.57
4 - 6	3:20	200	2.73
6 - 8	4:27	267	2.69
8 - 10	5:36	336	2.61
10 - 12	6:45	405	2.61
12 - 14	7:54	474	2.61
14 - 16	9:03	543	2.61
16 - 18	10:06	606	2.86
			<b>2.68</b>

<b>Bay 19 TW:</b>	160.5
<b>Turbine 2-3:</b>	68 RPM

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

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	45	6.0	NA
Mon	45	6.0	NA
Tue	45	6.0	NA
Wed	45	6.0	NA
Thur	45	6.0	NA
Fri	45	6.0	NA
Sat	45	6.0	NA
<b>AVG:</b>	<b>45</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	8.6	8.6	1.2	8.8	OOS	4.7	1.6
Sun							
Mon	8.2	8.2	1.5	8.1	OOS	4.5	1.6
Mon							
Tues	8.4	8.4	1.4	8.5	OOS	4.5	1.7
Tues							
Wed	9.4	9.4	1.4	8.0	OOS	4.6	1.5
Wed							
Thur	8.4	8.4	1.6	8.0	OOS	4.6	1.7
Thur							
Fri	8.4	8.4	1.5	8.1	OOS	4.6	1.6
Fri							
Sat	8.3	8.3	1.5	8.1	OOS	4.6	1.5
Sat							
<b>AVG:</b>	<b>8.5</b>	<b>8.5</b>	<b>1.4</b>	<b>8.2</b>	<b>#DIV/0!</b>	<b>4.6</b>	<b>1.6</b>

**JDA Bird Counts: 12/16/18 to 12/22/18**

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)	
16-Dec	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	2	0	6
16-Dec	SWFB	0	0	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111
16-Dec	PH1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
16-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW3	0	0	0	0	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	44
Avg/Survey		2		56		2		23		0		0		0		0		1		1		168
17-Dec	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	2	0	6
17-Dec	SWFB	0	0	555	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	555
17-Dec	PH1	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
17-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	SW3	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0	0	0	0	0	55
Avg/Survey		5		278		4		29		0		0		0		0		1		1		634
18-Dec	PHFB	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	0	8
18-Dec	SWFB	0	0	235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	235
18-Dec	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec	SW3	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Avg/Survey		0		118		0		25		0		0		0		0		0		4		292
19-Dec	PHFB	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	1	0	0	0	25
19-Dec	SWFB	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
19-Dec	PH1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
19-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Dec	SW2	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9
19-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		2		22		2		17		0		0		0		0		1		0		85

**JDA Bird Counts: 12/16/18 to 12/22/18**

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)	
20-Dec	PHFB	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	3	0	0	0	26
20-Dec	SWFB	0	0	214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214
20-Dec	PH1	9	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
20-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Dec	SW2	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
20-Dec	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		107		1		19		0		0		0		0		2		0		265
21-Dec	PHFB	0	0	64	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	4	0	92
21-Dec	SWFB	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
21-Dec	PH1	12	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
21-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec	SW2	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
21-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		6		84		2		19		0		0		0		0		0		2		224
22-Dec	PHFB	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	2	0	0	0	33
22-Dec	SWFB	0	0	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148
22-Dec	PH1	16	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
22-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	SW2	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
22-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		8		74		3		22		0		0		0		0		1		0		214
<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>		54		1475		25		303		0		0		0		0		10		15		1882
<b>Avg/Survey</b>		4		105		2		22		0		0		0		0		1		1		134

John Day Dam  
Avian Zones

