

# FISHWAY STATUS REPORT

Date: 12/1/2018  
 Inspection Period: 11/25/2018 thru 12/1/2018

## 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 twice per day during fish passage 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:	51 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
<b>NORTH FISHWAY</b>			In service with all 6 AWS pumps total 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>	0		In service with two AWS turbines and two FOGs.			
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	8.3		
Collection channel velocity	0	1.5 - 4 fps	AVG	2.69		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.7		
Entrance weir NE1	0	depth (≥ 8')	AVG	9.5		
Entrance weir NE2	0	depth (≥ 8')	AVG	9.5		
<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	Monthly STS inspection completed by the week 11/26. All STS were undamaged and working.			
Turbine trashrack drawdown	0	<1.5', wkly	Monthly trashrack raking completed by 11/29. Some wooden debris was removed.			
Vert barrier screen drawdown	0	<1.5', wkly	Trashrack and VBS differentials are below the criterion of 1.5'.			
Spill volume	0	per FPP	Spill Season ended on 8/31. Bay 2 open at 1.6K for adult attraction to North Entrance on 9/1.			
Spill pattern	0	per FPP	Bay 2 open at 1.6K during daylight hours for adult attraction to North Entrance since 9/1.			
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.

SMF SCADA update/mods' planning by JD Electrical/ Portland District Engineers is underway. Implementation during this coming winter's outage season.

Research: None

Fallbacks:           AVG:   0                   MAX:   0                   MIN:   0

### Birds :

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 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.)

JD North Ladder in service since 12/21/17. 6 out of 6 AWS pumps available again since 4/18/18.

Spillway bay 2 was shut down at 1201 hrs. on Dec. 1. No fish spill of any kind will occur until April 2019.

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

### Maintenance:

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:

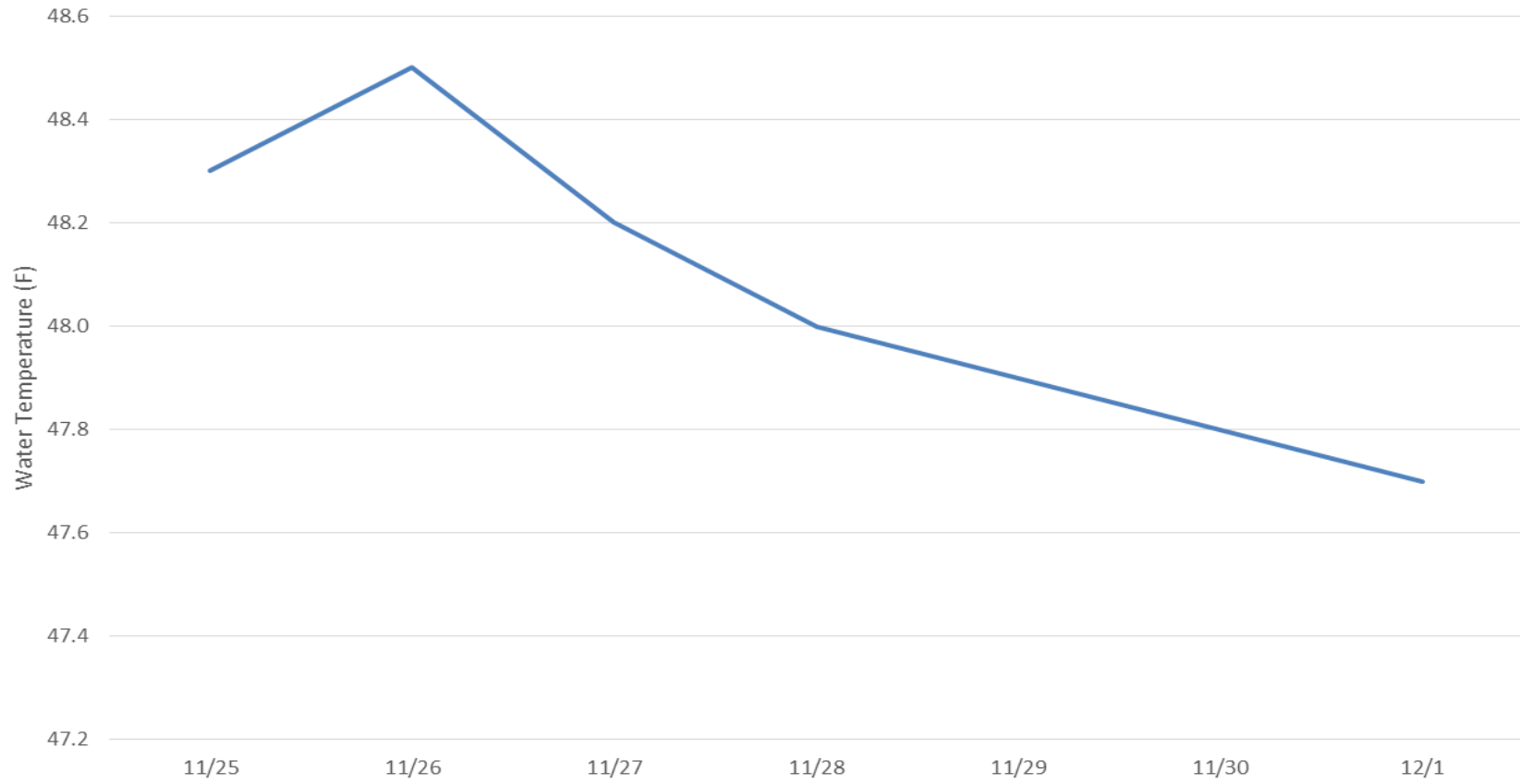
JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

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 (11/25/18 - 12/1/18)



## 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>

Bay 19 TW:	160.5
Turbine 2-3:	68 RPM

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

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	52	6.0	NA
Mon	52	6.0	NA
Tue	52	6.0	NA
Wed	51	6.0	NA
Thur	50	6.0	NA
Fri	50	6.0	NA
Sat	49	6.0	NA
<b>AVG:</b>	<b>51</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	9.4	1.4	8.6	1.6	4.6	1.6
Sun	9.6	9.6	1.6	8.2	1.6	4.6	1.8
Mon	9.5	9.5	1.5	8.5	1.5	4.7	1.7
Mon	8.9	8.9	1.5	8.3	1.6	4.6	1.8
Tues	9.5	9.5	1.5	8.6	1.6	4.5	1.7
Tues	9.0	9.0	1.6	8.4	1.7	4.5	1.8
Wed	10.0	10.0	1.5	8.2	1.3	4.6	1.7
Wed	9.2	9.2	1.5	8.2	1.6	4.5	1.6
Thur	9.2	9.2	1.6	8.3	1.4	4.6	1.8
Thur	9.6	9.6	1.5	8.2	1.3	4.6	1.5
Fri	9.9	9.9	1.5	8.7	1.3	4.6	1.6
Fri	9.8	9.8	1.4	8.2	1.3	4.6	1.5
Sat	9.7	9.7	1.6	8.0	1.4	4.6	1.6
Sat	10.2	10.2	1.5	8.3	1.3	4.5	1.6
<b>AVG:</b>	<b>9.5</b>	<b>9.5</b>	<b>1.5</b>	<b>8.3</b>	<b>1.5</b>	<b>4.6</b>	<b>1.7</b>

**JDA Bird Counts: 11/18/18 to 11/24/18**

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)	
18-Nov	PHFB	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	4
18-Nov	SWFB	0	0	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
18-Nov	PH1	0	8	0	0	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
18-Nov	PH2	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
18-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Nov	SW2	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	40
18-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		19		35		6		21		0		0		0		0		2		0		162
19-Nov	PHFB	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	17
19-Nov	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Nov	PH1	11	4	0	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
19-Nov	PH2	28	7	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
19-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-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		25		6		4		0		0		0		0		0		3		0		74
20-Nov	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	SWFB	0	0	42	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94
20-Nov	PH1	19	18	0	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
20-Nov	PH2	35	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
20-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-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		46		47		6		0		0		0		0		0		0		0		197
21-Nov	PHFB	0	0	0	0	0	0	10	3	0	0	0	0	0	0	0	0	0	0	0	0	13
21-Nov	SWFB	0	0	248	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360
21-Nov	PH1	22	25	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55
21-Nov	PH2	8	38	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
21-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Nov	SW2	0	0	0	0	0	0	14	31	0	0	0	0	0	0	0	0	0	0	0	0	45
21-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		47		180		5		29		0		0		0		0		0		0		521

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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)	
22-Nov	PHFB	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	42
22-Nov	SWFB	0	0	205	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	389
22-Nov	PH1	24	8	0	0	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
22-Nov	PH2	21	19	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
22-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Nov	SW2	0	0	0	0	0	0	0	17	0	0	16	0	0	0	0	0	0	0	0	0	33
22-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>36</b>		<b>195</b>		<b>9</b>		<b>30</b>		<b>0</b>		<b>8</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>554</b>
23-Nov	PHFB	0	0	0	0	0	0	17	6	0	0	0	0	0	0	0	0	0	0	0	0	23
23-Nov	SWFB	0	0	209	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397
23-Nov	PH1	21	11	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
23-Nov	PH2	18	8	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
23-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>29</b>		<b>199</b>		<b>4</b>		<b>12</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>486</b>
24-Nov	PHFB	0	0	8	13	0	0	39	0	0	0	0	0	0	0	0	0	0	0	17	0	77
24-Nov	SWFB	0	0	201	177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	378
24-Nov	PH1	34	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
24-Nov	PH2	3	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
24-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Nov	SW2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
24-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>29</b>		<b>200</b>		<b>5</b>		<b>22</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>9</b>		<b>527</b>
<b>Totals</b>		<b>Gulls</b>				<b>Cormorant</b>				<b>Caspian tern</b>				<b>White Pelican</b>				<b>Grebe</b>				<b>Total</b>
		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		
<b>Weekly Total</b>		<b>460</b>		<b>1720</b>		<b>76</b>		<b>224</b>		<b>0</b>		<b>16</b>		<b>0</b>		<b>0</b>		<b>8</b>		<b>17</b>		<b>2521</b>
<b>Avg/Survey</b>		<b>33</b>		<b>123</b>		<b>5</b>		<b>16</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>1</b>		<b>180</b>

John Day Dam  
Avian Zones

