

FISHWAY STATUS REPORT

Date: 11/12/2016
 Inspection Period: 11/6/2016 thru 11/12/2016



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:	57 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
NORTH FISHWAY			In service; all 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		
SOUTH FISHWAY			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	8.4		
Collection channel velocity	0	1.5 - 4 fps	AVG	3.81		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.5		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.6		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.6		
JUVENILE PASSAGE			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	November's STS camera inspection scheduled for the week of 11/21.			
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 11/28; very light river debris loads			
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	N/A	Bay 2 continues open 1.6 Kcfs for JD North's fish attraction, daylight hours.			
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

SMOLT MONITORING FACILITY

Operation:

2016 Sampling season ended on 9/15; SMF continues in bypass for the full flow PIT tags detections until 28 November.

Maintenance:

No maintenance issues to report. PDS screen cleaners have been working well.

SMF SCADA update/mods' investigation by JD Electrical underway. Needs As Built's completed ASAP (\$ 50K UFR.)

Research:

None

Fallbacks: AVG: MAX: 0 MIN: 0

Birds :

see the Avian Numbers tab. A wide array of aquatic birds feeding on the abundant juvenile shad.

15 Navlock (# 43 & 58 broke the week of 10/17) 6 Spillway, 6 Tower-to-Tower, 1 PH 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:

MU 3 OOS due to failed STS since 11/10. Since JD STS crane is failed/unavailable as well, the STS can't be removed and MU3 will remain in the forced OOS status until the crane is fixed (see JD STS crane info below.)

SMF in bypass at Switch Gate for the full flow 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. Possible temporary "Band-Aid" repair by JD Mechanical this winter but need additional \$ 50K in special funding/ UFR.

JD STS crane continues in the failed status since late October. Its temporary/ emergency repair contract for \$ 200 K was awarded on 11/9 with a target completion of 12/21 through 12/28. The crane is old/wore out and its electronic controls are in a bad need of major overhaul at estimated cost of \$ 1.5 million.

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

Research:

Adult Fish Counting by Normandeau Associates completed on 31 October 2016.

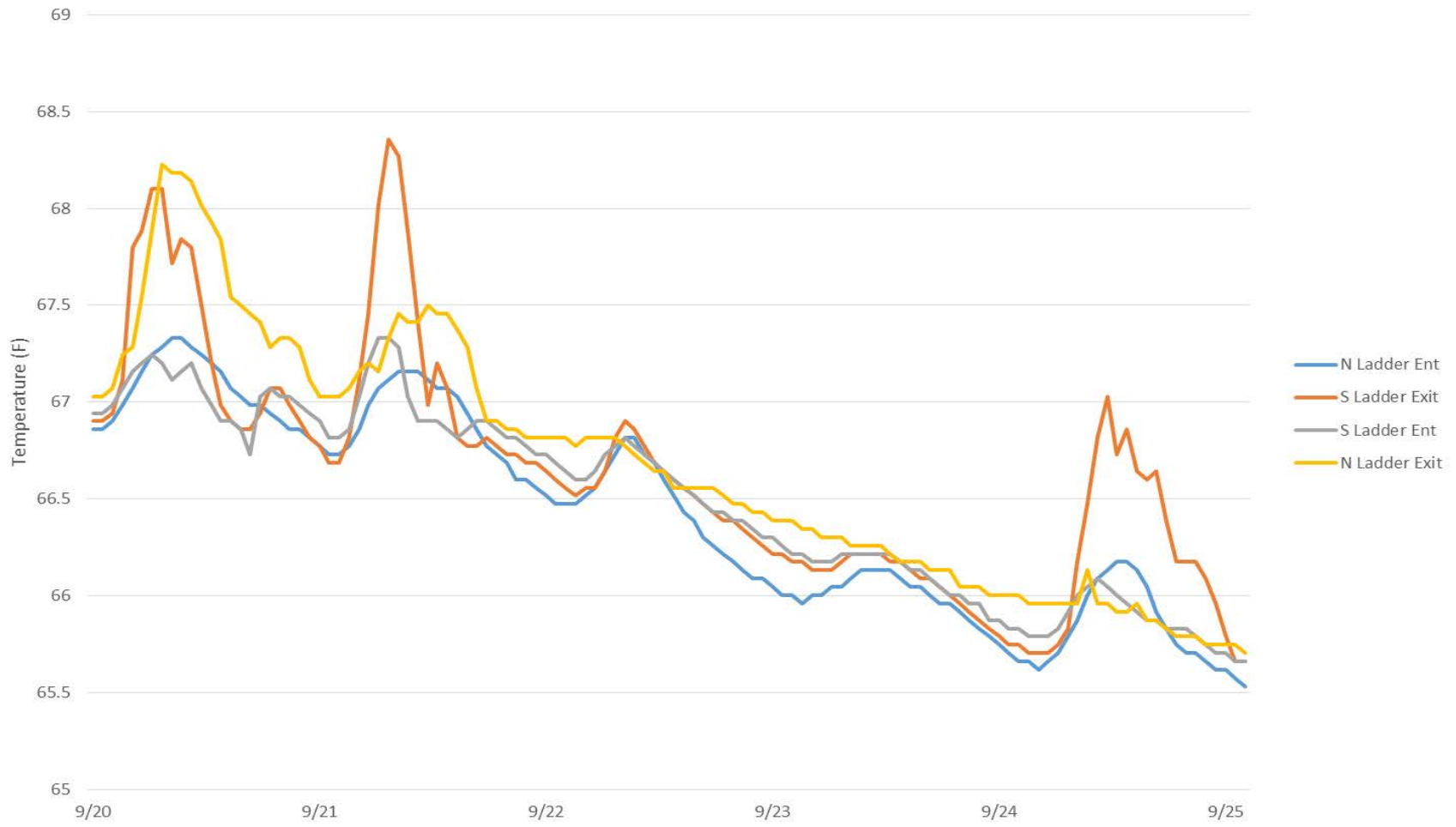
Adult PIT antennas PDT continues on the contract award for this winter's installation at both JD Fishways.

Kevin Moynahan

OPM John Day/Willow Creek Project

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

John Day Dam Fishladder Temperatures (9/25/2016)



JDA Collection Channel Velocity

Date 10-Nov-16

By: MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	0:54	54	3.33
2 - 4	1:38	98	4.09
4 - 6	2:25	145	3.83
6 - 8	3:10	190	4.00
8 - 10	3:57	237	3.83
10 - 12	4:43	283	3.91
12 - 14	5:33	333	3.60
14 - 16	6:20	380	3.83
16 - 18	7:07	427	3.83
			3.81

TW	160.4
#1 RPM	OOS
#2 RPM	60
#3 RPM	60

JDA Bird Counts: 11/6/16 to 11/12/16

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-Nov	PHFB	0	0	587	229	0	0	0	1	0	0	0	0	0	0	0	0	0	0	30	19	866
6-Nov	SWFB	0	0	177	537	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	8	728
6-Nov	PH1	7	84	7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	100
6-Nov	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6
6-Nov	SW2	0	0	0	0	0	0	35	44	0	0	0	0	0	0	0	0	0	0	0	0	79
6-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	769	0	41	0	0	0	0	0	0	0	4	31						1779		
7-Nov	PHFB	0	0	88	739	0	0	1	0	0	0	0	0	0	0	0	0	0	0	42	5	875
7-Nov	SWFB	0	0	388	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	390
7-Nov	PH1	0	90	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
7-Nov	PH2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
7-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Nov	SW2	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	39
7-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		49	608	4	21	0	0	0	0	0	0	0	0	0	24						1409	
8-Nov	PHFB	0	0	53	240	0	0	18	1	0	0	0	0	0	0	0	0	0	0	17	29	358
8-Nov	SWFB	0	0	633	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	768
8-Nov	PH1	8	47	0	0	14	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
8-Nov	PH2	1	39	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
8-Nov	PH3	0	0	0	0	0	0	47	13	0	0	0	0	0	0	0	0	0	0	0	0	60
8-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Nov	SW2	0	0	0	0	0	0	36	29	0	0	0	0	0	0	0	0	0	0	0	0	65
8-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		48	531	11	72	0	0	0	0	0	0	0	0	0	23						1367	
9-Nov	PHFB	0	0	21	42	0	0	16	0	0	0	0	0	0	0	0	0	0	0	49	23	151
9-Nov	SWFB	0	0	142	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194
9-Nov	PH1	25	27	0	0	10	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
9-Nov	PH2	11	13	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
9-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Nov	SW2	0	0	0	0	0	0	34	47	0	0	0	0	0	0	0	0	0	0	0	0	81
9-Nov	SW3	0	0	0	0	0	0	38	16	0	0	0	0	0	0	0	0	0	0	0	0	54
Avg/Survey		38	129	15	76	0	0	0	0	0	0	0	0	0	36						586	

JDA Bird Counts: 11/6/16 to 11/12/16

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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)	
10-Nov	PHFB	0	0	26	25	0	0	22	12	0	0	0	0	0	0	0	0	0	0	57	41	183
10-Nov	SWFB	0	0	277	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	483
10-Nov	PH1	24	14	15	0	12	11	0	0	0	0	0	0	0	0	0	0	0	5	0	0	81
10-Nov	PH2	1	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
10-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Nov	SW1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10-Nov	SW2	0	0	0	0	0	0	31	26	0	0	0	0	0	0	0	0	0	0	0	0	57
10-Nov	SW3	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Avg/Survey		20		275		16		54		0		0		0		0		3		49		830
11-Nov	PHFB	0	0	74	18	0	0	14	9	0	0	0	0	0	0	0	0	0	0	8	0	123
11-Nov	SWFB	0	0	105	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157
11-Nov	PH1	23	12	0	0	18	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
11-Nov	PH2	3	6	0	0	3	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
11-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Nov	SW1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11-Nov	SW2	0	0	0	0	0	0	52	54	0	0	0	0	0	0	0	0	0	0	0	0	106
11-Nov	SW3	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	40
Avg/Survey		22		125		24		86		0		0		0		0		0		4		519
12-Nov	PHFB	0	0	100	261	0	0	12	0	0	0	0	0	0	0	0	0	0	0	11	27	411
12-Nov	SWFB	0	0	199	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	282
12-Nov	PH1	25	27	0	0	28	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87
12-Nov	PH2	3	11	0	0	4	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Nov	SW2	0	0	0	0	0	0	42	44	0	0	0	0	0	0	0	0	0	0	0	0	86
12-Nov	SW3	0	0	0	0	0	0	13	28	0	0	0	0	0	0	0	0	0	0	0	0	41
Avg/Survey		33		322		23		70		0		0		0		0		0		19		932
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		509		5512		183		834		0		0		0		0		13		371		7422
Avg/Survey		36		394		13		60		0		0		0		0		1		27		530

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	57	6.0	
Mon	57	6.0	
Tue	57	6.0	
Wed	57	6.0	
Thur	57	6.0	
Fri	56	6.0	
Sat	56	6.0	
AVG:	57	6.0	AVG
			0
			MAX
			0
			MIN

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.2	8.1	1.5	8.2	1.5	4.6	1.4
Sun	8.1	8.2	1.5	8.3	1.5	4.6	1.6
Mon	8.0	8.0	1.3	8.4	1.5	4.5	1.5
Mon	8.0	8.0	1.5	8.5	1.6	4.6	1.4
Tues	8.0	8.0	1.2	9.1	1.5	4.6	1.5
Tues	9.5	9.5	1.4	8.3	1.4	4.6	1.5
Wed	9.0	9.0	1.5	8.2	1.4	4.6	1.3
Wed	8.9	8.9	1.4	8.1	1.4	4.5	1.4
Thur	9.0	9.0	1.4	8.7	1.5	4.6	1.5
Thur	9.0	9.0	1.6	8.2	1.5	4.6	1.4
Fri	8.7	8.7	1.5	8.5	1.5	4.6	1.4
Fri	8.7	8.7	1.5	9.2	1.6	4.5	1.4
Sat	8.8	8.8	1.5	8.0	1.5	4.5	1.6
Sat	8.7	8.7	1.5	8.3	1.5	4.5	1.5
AVG:	8.6	8.6	1.5	8.4	1.5	4.6	1.5