

FISHWAY STATUS REPORT

Date: 8/13/2016
 Inspection Period: 8/7/2016 thru 8/13/2016



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.
NORTH FISHWAY			In service; 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'	Changed back to the Salmon criteria of 1.0' on 7/18.			
South entrance differential	1	1.0' - 2.0'	AVG	1.3	one turbine ops for two days, 8/10 -8/11/16	
Entrance weir SE1	3	depth (≥ 8')	AVG	7.9	one turbine ops for two days, 8/10 -8/11/16	
Collection channel velocity	0	1.5 - 4 fps	AVG	3.71		
N. Entrance PH(Bay 19)differential	1	1.0' - 2.0'	AVG	1.4	one turbine ops for two days, 8/10 -8/11/16	
Entrance weir NE1	3	depth (≥ 8')	AVG	6.5	one turbine ops for two days, 8/10 -8/11/16	
Entrance weir NE2	3	depth (≥ 8')	AVG	7.9	one turbine ops for two days, 8/10 -8/11/16	
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	Bad STS at MU14 replaced immediately with working one on 8/11 AM			
Turbine trashrack drawdown	0	<1.5', wkly	Next monthly raking scheduled for the week of 8/22; 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; 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:

SMF SWITCH Gate's control panel failed on 8/11 AM. JD Fisheries crew moved the gate with the backup, pneumatic switch and JD Electrical re-set the control panel the same day.

No other 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: 6 MAX: 9 MIN: 3

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.

Up to 100 white pelicans per inspection observed deep inside of the tailrace BRZ floating/feeding on the edges of TWS flow. USDA has no permission to haze them. They appeared in the tailrace BRZ much earlier and in higher abundance this year and it seems their local population has been expanding rapidly in the last few years. FPOM needs to determine if they are a serious concern for the juvenile salmonids in June and July (?)

13 Navlock, 4 Spillway (2 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 downstream of JD Tailrace BRZ continues since 4/29/16. Hazing extended through 11 August 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.

JDS AWS turbine 3 shut down due to overheating/oil issues on 8/10 AM. JD Ops and Maintenance immediately investigated the low oil pressure/leak.

Turbine 3 successfully returned to service the next day, 8/11 by 1600 hrs. NE1 weir was closed and NE2 less than 8 feet to optimize attraction to SE-1 and NE-2. per FPP requirements. Kudos to JD Ops and Maintenance crews for their professional and effective response!

MU Gatewell Drawdowns: Twice a week or more frequently as necessary.

Maintenance:

MU 10 was dewatered for its oil transfer on 8/8. There were no fish found in the scroll case. There were two small sturgeon and 15 cats salvaged from the draft tube by JD Fisheries. All fish were released live into tailrace in excellent condition.

One bad STS at MU 14 was replaced with the working spare by JD Structural crew, on 8/11 AM.

All 6 JD North Fishway's AWS pumps are available; 3 are typically required in service this time of year.

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.

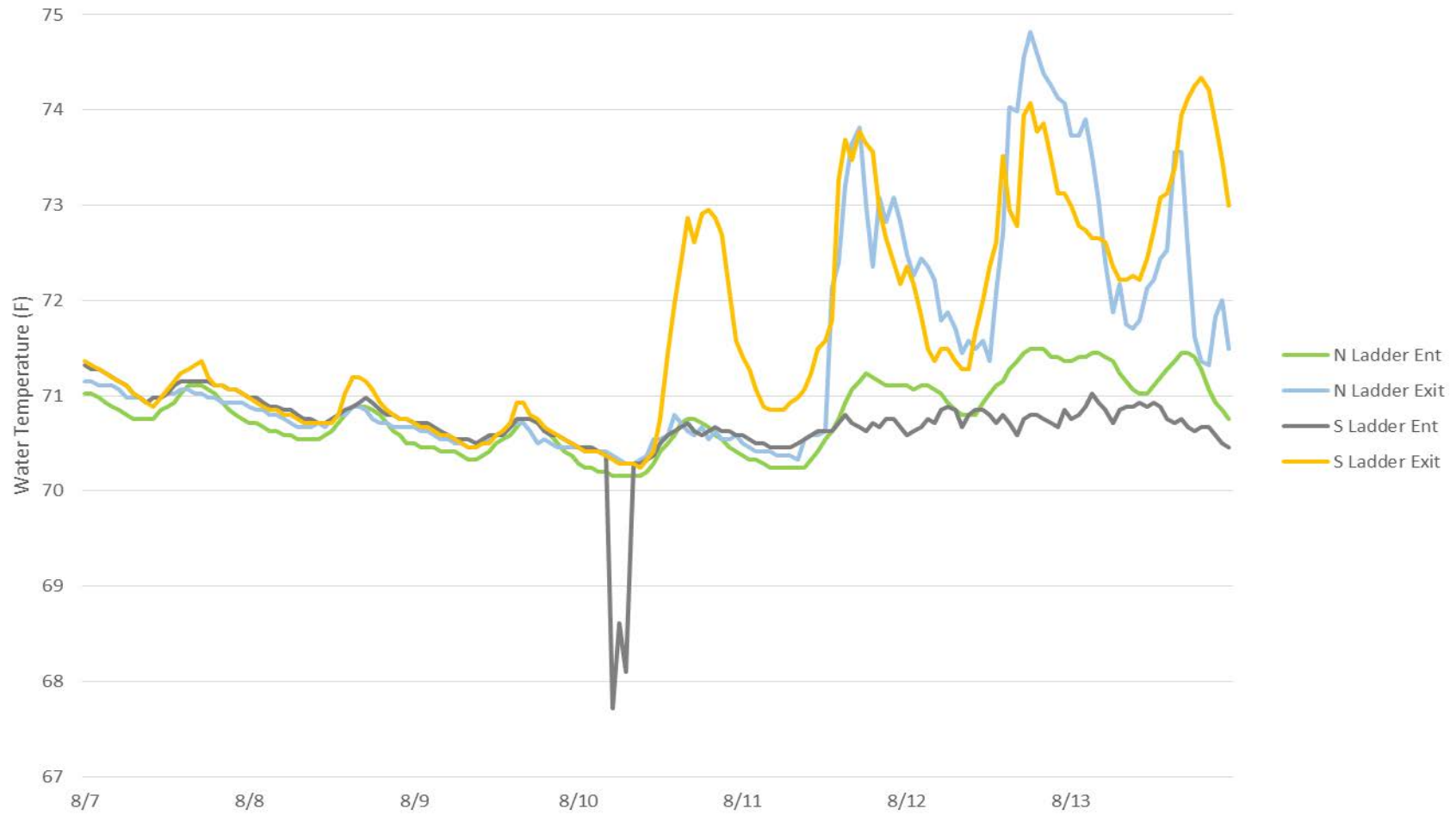
Adult PIT antennas PDT continues developing designs for the next winter outage's installation at both JD Fishways.

OPM John Day/Willow Creek Project

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

MOYNAHAN,KEVIN.PATRICK,1393959157

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
			3.71

TW 159.9
 #1 RPM 60
 #2 RPM 60

JDA Bird Counts: 8/7/16 to 8/13/16

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)	
7-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
7-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	31	5	0	0	0	0	0	0	36
7-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	0	0	0	18
7-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	27	6	0	0	0	0	0	0	33
7-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	40	4	0	0	0	0	0	0	44
7-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	0	26
Avg/Survey		0	0	0	0	0	0	0	0	0	0	0	0	82	0	0	0	0	0	0	0	164
8-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	0	10
8-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	25	2	0	0	0	0	0	0	27
8-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	17
8-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	0	17
8-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	36	36	0	0	0	0	0	0	72
8-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	18	23	0	0	0	0	0	0	41
Avg/Survey		0	0	0	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	184
9-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Aug	PH2	0	10	0	0	0	0	0	0	0	0	0	0	18	27	0	0	0	0	0	0	55
9-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	6	11	0	0	0	0	0	0	17
9-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
9-Aug	SW2	0	13	0	0	0	0	0	0	0	0	0	0	44	18	0	0	0	0	0	0	75
9-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	18
Avg/Survey		12	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	0	0	0	167
10-Aug	PHFB	0	0	3	27	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	34
10-Aug	SWFB	0	0	99	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191
10-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	12	8	0	0	0	0	0	0	20
10-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	30	5	0	0	0	0	0	0	35
10-Aug	PH3	21	19	0	0	0	0	0	0	0	0	0	0	11	11	33	0	0	0	0	0	95
10-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
10-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	51	8	0	0	0	0	0	0	59
10-Aug	SW3	22	19	0	0	0	0	0	0	0	0	0	0	19	34	8	0	0	0	0	0	102
Avg/Survey		41	111	0	0	0	0	0	0	0	0	0	0	101	23	0	0	0	0	0	0	549

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	71	6.0	
Mon	71	6.0	9
Tue	71	6.0	
Wed	70	6.0	
Thur	70	6.0	3
Fri	70	6.0	
Sat	71	6.0	
AVG:	71	AVG: 6.0	AVG 6
			MAX 9
			MIN 3

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.5	8.5	1.4	8.9	1.5	4.6	1.3
Sun	8.2	8.2	1.5	8.1	1.5	4.5	1.2
Mon	8.2	8.2	1.3	8.1	1.5	4.6	1.1
Mon	8.2	8.2	1.4	8.2	1.5	4.6	1.1
Tues	8.2	8.2	1.4	8.0	1.4	4.6	1.4
Tues	8.2	8.0	1.4	8.0	1.5	4.6	1.6
Wed	8.2	8.3	0.4	8.3	1.6	4.6	0.8
Wed	0.0	6.6	1.1	6.0	1.6	4.6	1.4
Thur	0.0	6.2	1.4	6.3	1.4	4.6	1.7
Thur	0.0	6.9	1.0	7.4	1.6	4.7	1.7
Fri	8.5	8.6	1.7	8.5	1.6	4.5	1.6
Fri	8.2	8.3	1.4	8.0	1.6	4.6	1.3
Sat	8.3	8.3	1.6	8.1	1.6	4.6	1.3
Sat	8.3	8.3	1.4	8.2	1.6	4.6	1.4
AVG:	6.5	7.9	1.3	7.9	1.5	4.6	1.4

Emergency, one AWS turbine operation on 8/10 and 8/11 due to failed JDS AWS turbine# 3