


FISHWAY STATUS REPORT

Date: 7/30/2016
Inspection Period: 7/24/2016 thru 7/30/2016



**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:	70 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	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		
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	OOC at 0.7' on 7/25/2016, turbine 2 tripped due to overheating	
Entrance weir SE1	0	depth (≥ 8')	AVG	8.3		
Collection channel velocity	0	1.5 - 4 fps	AVG	3.27		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.3		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.3		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.3		
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	STS camera insp. completed on 7/21. Two bad screens in MU 4 replaced with spares on 7/19.			
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 7/25; very light river debris loads.			
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	N/A	2016 Spill season started on 4/10/16 at 0001; 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 started on 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: 41 MAX: 48 MIN: 33

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 (?)

A white pelican mortality was found on 7/17; the bird's wing was entangled in a cross-river avian line, mid-river, with its body touching the water surface.

13 Navlock, 4 Spillway (2 new broke on 7/30), 3 Tower-to-Tower, 1 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.

JD South AWS turbine 2 tripped due to overheating on 7/25 AM. An operator immediately increased cooling water flow and it's been working fine since.

JD S AWS turbine 3 tripped and was limited to 20 RPM (regular RPM is 60) on 7/20 AM. JD Ops and Maintenance immediately investigated low oil pressure/leak issues during a short outage early PM. Turbine 3 successfully returned to service with regular 60 RPM, same day, by 1600 hrs. NE1 weir was closed for a short time while only one AWS turbine was in service, per FPP requirements. It has been working fine since.

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

Maintenance:

JD North Fishway Pump # 5 became available after JD Mechanical fixed an oil leak issue on 7/18; all 6 pumps are now available.

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. 2,784 fish removed by 7/24/16.

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.

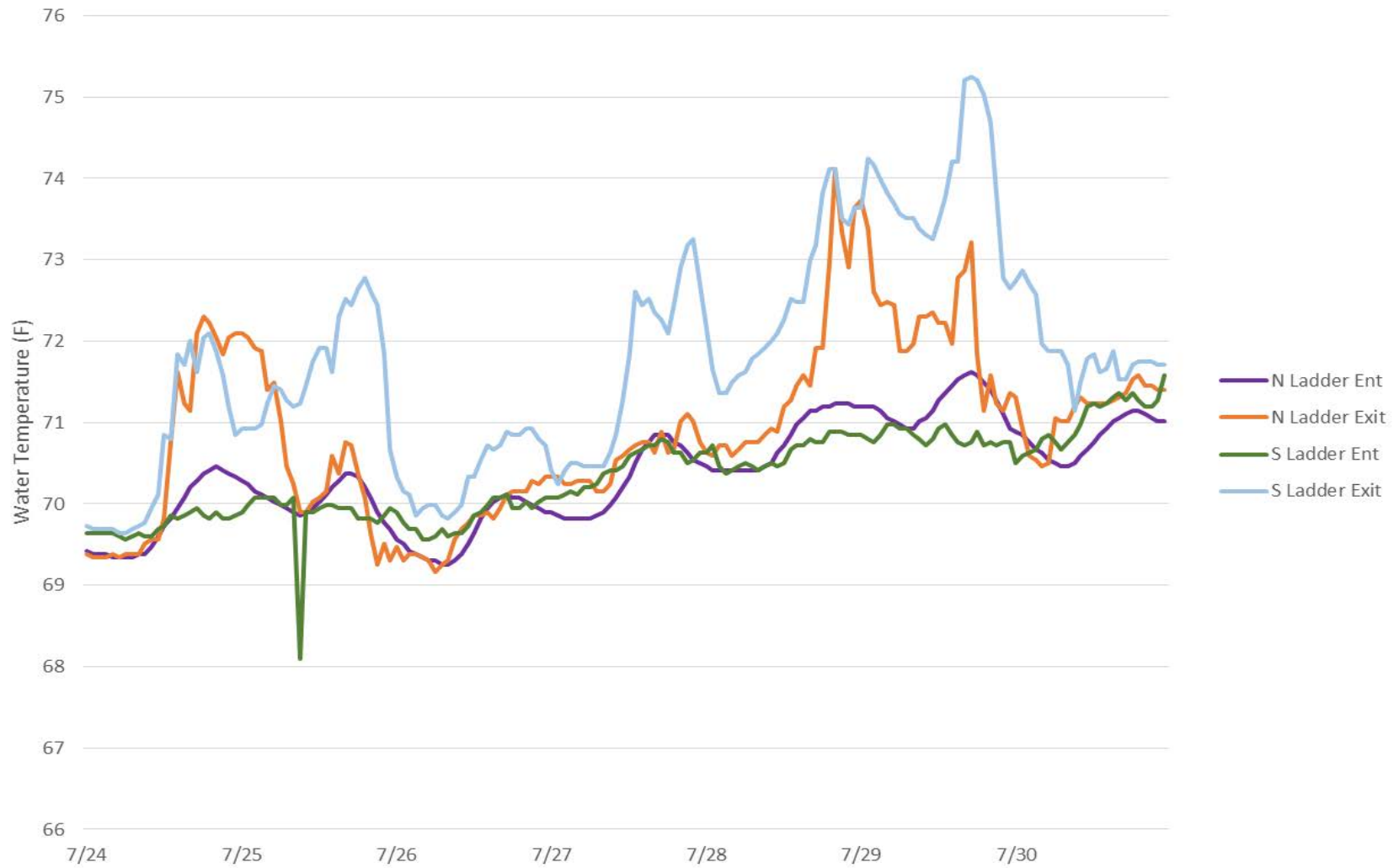
Adult PIT antennas PDT continues developing designs for the next winter outage's installation at both JD Fishways.

Kevin Moynahan

OPM John Day/Willow Creek Project

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

Fishladder Water Temperatures at John Day Dam July 24 - July 30 2016



JDA Collection Channel Velocity

Date 30-Jul-16

By: MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:13	73	2.47
2 - 4	2:10	130	3.16
4 - 6	3:04	184	3.33
6 - 8	3:59	239	3.27
8 - 10	4:52	292	3.40
10 - 12	5:44	344	3.46
12 - 14	6:40	400	3.21
14 - 16	7:34	454	3.33
16 - 18	8:22	502	3.75
			3.27

TW 160.0
#1 RPM 59
#2 RPM 60

JDA Bird Counts: 7/24/16 to 7/30/16

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)	
24-Jul	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
24-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	0	8
24-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	43	23	0	0	0	0	0	0	66
24-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	6	27	0	0	0	0	0	0	33
24-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
24-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	32	21	0	0	0	0	0	0	53
24-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	17	12	0	0	0	0	0	0	29
Avg/Survey		0	1	0	0	0	0	0	0	0	0	0	0	96	0	0	0	0	0	0	0	192
25-Jul	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
25-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
25-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	98	24	0	0	0	0	0	0	122
25-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	8	0	0	0	0	0	0	13
25-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
25-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	41	0	0	0	0	0	0	48
25-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	6	13	0	0	0	0	0	0	19
Avg/Survey		0	0	0	0	0	0	0	0	0	0	0	0	104	1	0	0	0	0	0	0	209
26-Jul	PHFB	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
26-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	5
26-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	33	27	0	0	0	0	0	0	60
26-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	11	16	0	0	0	0	0	0	27
26-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
26-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	59	9	0	0	0	0	0	0	68
26-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	8	8	0	0	0	0	0	0	16
Avg/Survey		0	2	0	0	0	0	0	0	0	0	0	0	90	0	0	0	0	0	0	0	183
27-Jul	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	4
27-Jul	SWFB	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
27-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	0	10
27-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	63	15	0	0	0	0	0	0	78
27-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	11	13	2	0	0	0	0	31
27-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
27-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
27-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	55	2	0	0	0	0	0	0	57
Avg/Survey		0	3	0	0	0	0	0	0	0	0	0	0	87	9	0	0	0	0	0	0	198

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	69	6.0	
Mon	69	6.0	48
Tue	69	6.0	
Wed	70	6.0	33
Thur	70	6.0	
Fri	70	6.0	
Sat	70	6.0	
AVG:	70	AVG: 6.0	AVG 41
			MAX 48
			MIN 33

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.2	8.2	1.4	8.5	1.4	4.6	1.5
Sun	8.1	8.0	1.4	8.2	1.4	4.6	1.5
Mon	8.1	8.0	0.7	8.3	1.6	4.6	1.7
Mon	8.0	8.1	1.3	8.3	1.5	4.5	1.6
Tues	8.2	8.2	1.3	8.4	1.4	4.5	1.4
Tues	8.1	8.1	1.3	8.4	1.5	4.5	1.6
Wed	8.2	8.2	1.5	8.9	1.4	4.6	1.2
Wed	8.1	8.2	1.2	8.7	1.5	4.6	1.2
Thur	8.0	8.0	1.4	8.4	1.7	4.6	1.1
Thur	8.6	8.6	1.4	8.0	1.5	4.6	1.0
Fri	8.5	8.5	1.4	8.0	1.5	4.7	1.1
Fri	9.9	9.9	1.3	8.1	1.5	4.6	1.1
Sat	8.0	8.0	1.4	8.1	1.7	4.6	1.2
Sat	8.3	8.3	1.3	8.1	1.5	4.5	1.2
AVG:	8.3	8.3	1.3	8.3	1.5	4.6	1.3