

FISHWAY STATUS REPORT

Date: 3/24/2018
 Inspection Period: 3/18/2018 thru 3/24/2018



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 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:	43 F
	Out of Criteria	Limit			Secchi:	5.4 Ft.
NORTH FISHWAY			5 out 6 AWS pumps available with pump 1 OOS since 2/7. See maintenance section for details.			
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	1.6		
SOUTH FISHWAY	0		In service since 2/28 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	1.4		
Entrance weir SE1	0	depth (≥ 8')	AVG	8.5		
Collection channel velocity	0	1.5 - 4 fps	AVG	2.46		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.6		
Entrance weir NE1	0	depth (≥ 8')	AVG	9.5		
Entrance weir NE2	0	depth (≥ 8')	AVG	9.3		
JUVENILE PASSAGE	0		In service since 2/28, with STS screens in units 1,2,3,4,8 and 9.			
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG	4.5		
Submersible traveling screens	0	visual inspect				
Turbine trashrack drawdown	0	<1.5', wkly				
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	per FPP	Unplanned spill underway since early February (due to line 4 OOS until 1 April.)			
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

SMOLT MONITORING FACILITY

Operation:

SMF in service since 2/28 with every other day, 24 hrs condition sampling. First 2018 sample was collected/processed on 1 March.

Maintenance:

All winter repairs/ PMs of SMF equipment were completed by 1 March. No issues of any kind at this time.

SMF SCADA update/mods' investigation by JD Electrical/ Portland District Engineers is underway. Awaiting for \$ 170 K UFR to continue working in FY18.

Research: None

Birds :

Only a few birds, mostly cormorants are present at JD at this time. See the Avian Numbers tab for details.

Avian lines' contractor is making fantastic progress due to mild and non-windy winter and is expected to complete all work early, by 4/1/18.

The Spillway section's new tensioning winches have been already installed and will allow for the lines' adjustments.

Operations:

MU1 OOS since 3/14 due to broken head cover bolts and excessive water leakage. It returned to service on 3/22 late PM.

MU 2 returned to service on 3/16 PM. Another great job by JD Maintenance which completed its in depth repairs in house and ahead of schedule!

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. 5 out of 6 AWS pumps are available due to pump 1 failure on 2/02/18.

JBS RTS 2/28/18.

MU Gatewell Drawdowns: none due to winter maintenance season. Will commence in early March 2018.

Maintenance:

MU 1 returned to service after a quick repair by JD Mechanical crew on 3/22/18 late PM (great job!) The repair required a partial dewatering with the scroll case dewatered on 3/15 with no fish found inside. Draft tube was attempted but couldn't be dewatered due to severe roller gates' leaks and it was isolated for seven days which is longer than required limit of four days. However, there was no impact to salmonids since their numbers are very low/ negligible this time of year.

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 ?)

JD North AWS pump 1 OOS since 2/7 due to failed motor. JD has a spare motor which is going to be installed within a couple of months. There is no great hurry since we never even need 4 AWS pumps at the same time and 5 pumps are currently available; JD North AWS system is very redundant that way(!)

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

Research:

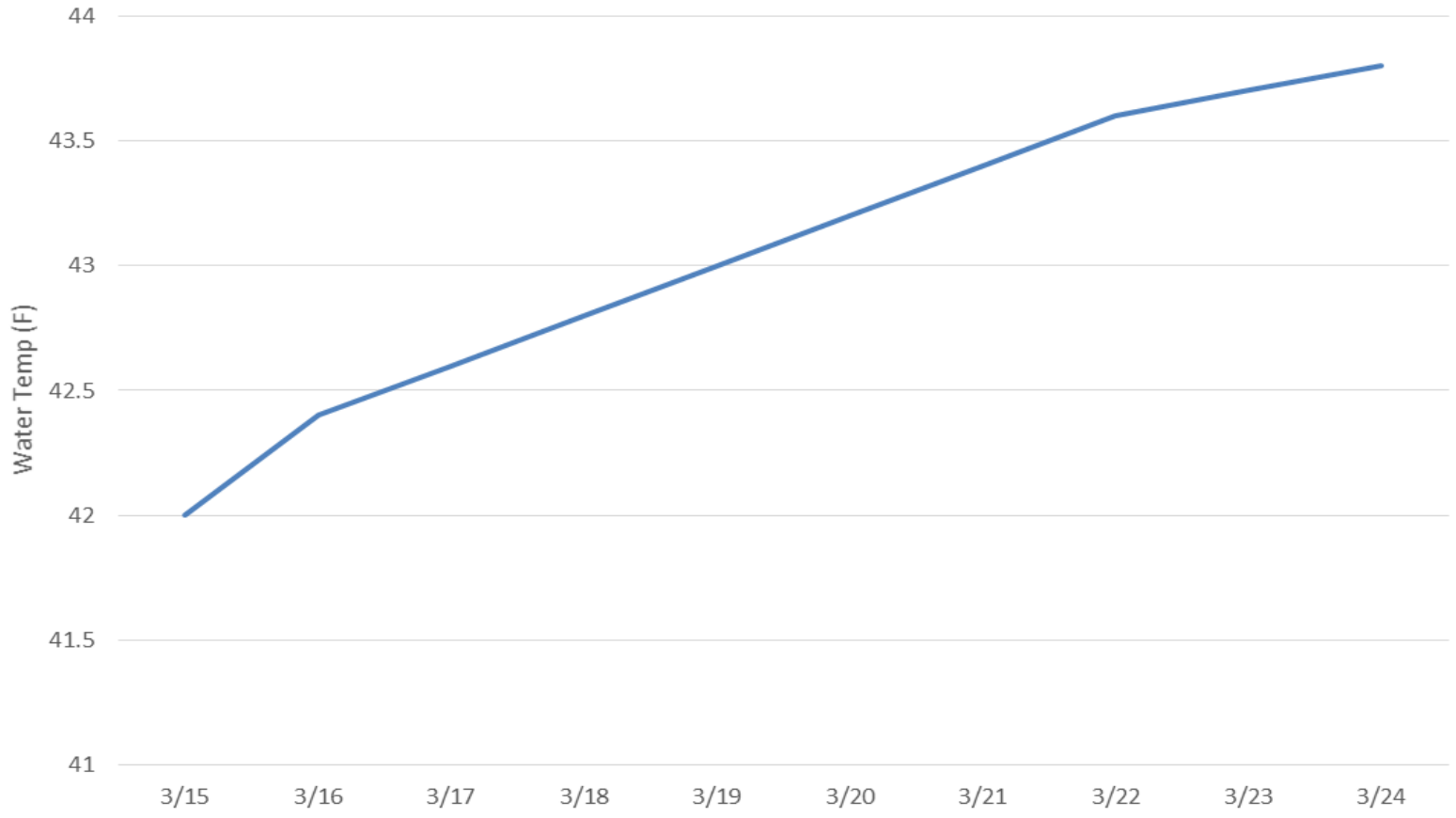
Adult PIT tag detection computer hardware - PSMFC crew completed all installations on 2/15. Both JDS and JDN systems are in service and detecting PIT tags.

Coordinating with Uof I crew for their JD Adult Lamprey RT installation/ monitoring at both adult fishways in 2018.

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

MOYNAHAN,KEVIN,PATRICK,1393959157

JDA Tailwater Temperature (3/15/18 - 3/24/18)



JDA Collection Channel Velocity

Date 12-Mar-18

By: pete

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:15	75	2.40
2 - 4	2:33	153	2.31
4 - 6	3:45	225	2.50
6 - 8	5:01	301	2.37
8 - 10	6:27	387	2.09
10 - 12	7:30	450	2.86
12 - 14	8:46	526	2.37
14 - 16	9:55	595	2.61
16 - 18	11:04	664	2.61
			2.46

TW=160.8
turbine 2,3=68rpm

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	43	5.5	21
Mon	43	5.0	bypass
Tue	43	5.0	14
Wed	43	5.0	bypass
Thur	43	5.0	36
Fri	43	6.0	bypass
Sat	44	6.0	14
AVG:	43	AVG: 5.4	AVG/Sample 21
			MAX 36
			MIN 14

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.4	8.1	1.3	9.3	1.6	4.5	1.6
Sun	9.8	9.5	1.3	9.0	1.5	4.4	1.5
Mon	9.3	9.0	1.3	8.5	1.6	4.4	1.7
Mon	9.6	9.3	1.4	9.0	1.5	4.5	1.8
Tues	8.9	8.6	1.3	8.3	1.6	4.7	1.5
Tues	9.4	9.2	1.4	8.3	1.6	4.5	1.4
Wed	9.1	8.8	1.3	8.4	1.6	4.5	1.8
Wed	8.0	8.0	1.4	8.3	1.6	4.6	1.9
Thur	9.7	9.7	1.3	8.2	1.6	4.6	1.5
Thur	10.0	10.0	1.4	8.6	1.5	4.5	1.5
Fri	10.3	10.3	1.4	8.6	1.5	4.5	1.5
Fri	10.5	10.5	1.3	8.7	1.5	4.6	1.3
Sat	10.0	10.0	1.3	8.0	1.6	4.6	1.5
Sat	9.3	9.3	1.6	8.0	1.6	4.7	1.4
AVG:	9.5	9.3	1.4	8.5	1.6	4.5	1.6

JDA Bird Counts: 3/18/18 to 3/24/18

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)	
22-Mar	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	PH1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
22-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		1		0		0		0		0		0		0		0		1
23-Mar	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	PH1	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
23-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		1		0		1		0		0		0		0		0		0		0		4
24-Mar	PHFB	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	4	0	0	6
24-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		0		1		0		0		0		0		2		0		6
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		14		6		7		42		0		0		0		0		10		0		79
Avg/Survey		1		0		1		3		0		0		0		0		1		0		6