


FISHWAY STATUS REPORT

Date: 4/28/2018
Inspection Period: 4/22/2018 thru 4/28/2018



**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: 50 F
	Out of Criteria	Limit		Secchi: 3.6 Ft.
NORTH FISHWAY			6 out of 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	
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 8.6	
Collection channel velocity	0	1.5 - 4 fps	AVG 2.77	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.7	
Entrance weir NE1	0	depth (≥ 8')	AVG 10.6	
Entrance weir NE2	0	depth (≥ 8')	AVG 10.6	
JUVENILE PASSAGE	0		MU8B orifice found plugged up by debris on 4/23 AM. See 18 JDA01 MFR for details.	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	Monthly STS camera inspection was completed by 4/17. MU 8C VBS found w/ minor damage.	
Turbine trashrack drawdown	0	<1.5', wkly	Monthly MU intake trashrack raking completed by 4/25. Very little debris found.	
Vert barrier screen drawdown	0	<1.5', wkly	MU8C VBS found with small, 6 " tear during camera inspection on 4/17. Fixed by 4/19.	
Spill volume	0	per FPP	Fish Spill at Gas Cap continues since 4/10/18.	
Spill pattern	0	per FPP	Two TSWs, bays 18 & 19 open since 4/10/18 AM.	
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.

Maintenance:

Minor PDS screen cleaner components (electrical control conduit's trolley bearings) were replaced by JD Mechanical on 4/19.

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

Research: None

Birds :

Gulls and white pelican numbers are slowly increasing in an immediate vicinity of JD. See Avian Numbers tab for details.

All 125 avian lines in place without any deficiencies. USDA boat hazing commenced on 4/16 and will continue 7 days a week thru 7/31.

Operations:

35 smolt mortalities were found in a gatewell 8B during routine, daily inspection on 4/23 AM. An immediate underwater camera inspection found 8B orifice plugged up by sticks/wooden debris which were removed by JD Structural crew using grapple hook. Unfortunately, additional 37 smolt mortalities were identified before the orifice was fully open, the same day PM. See 18 JDA 01 MFR for details.

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.

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 ?)

JD North AWS pump 1 motor was repaired by JD Mechanical crew and the pump returned to service on 4/18/18.

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

Research:

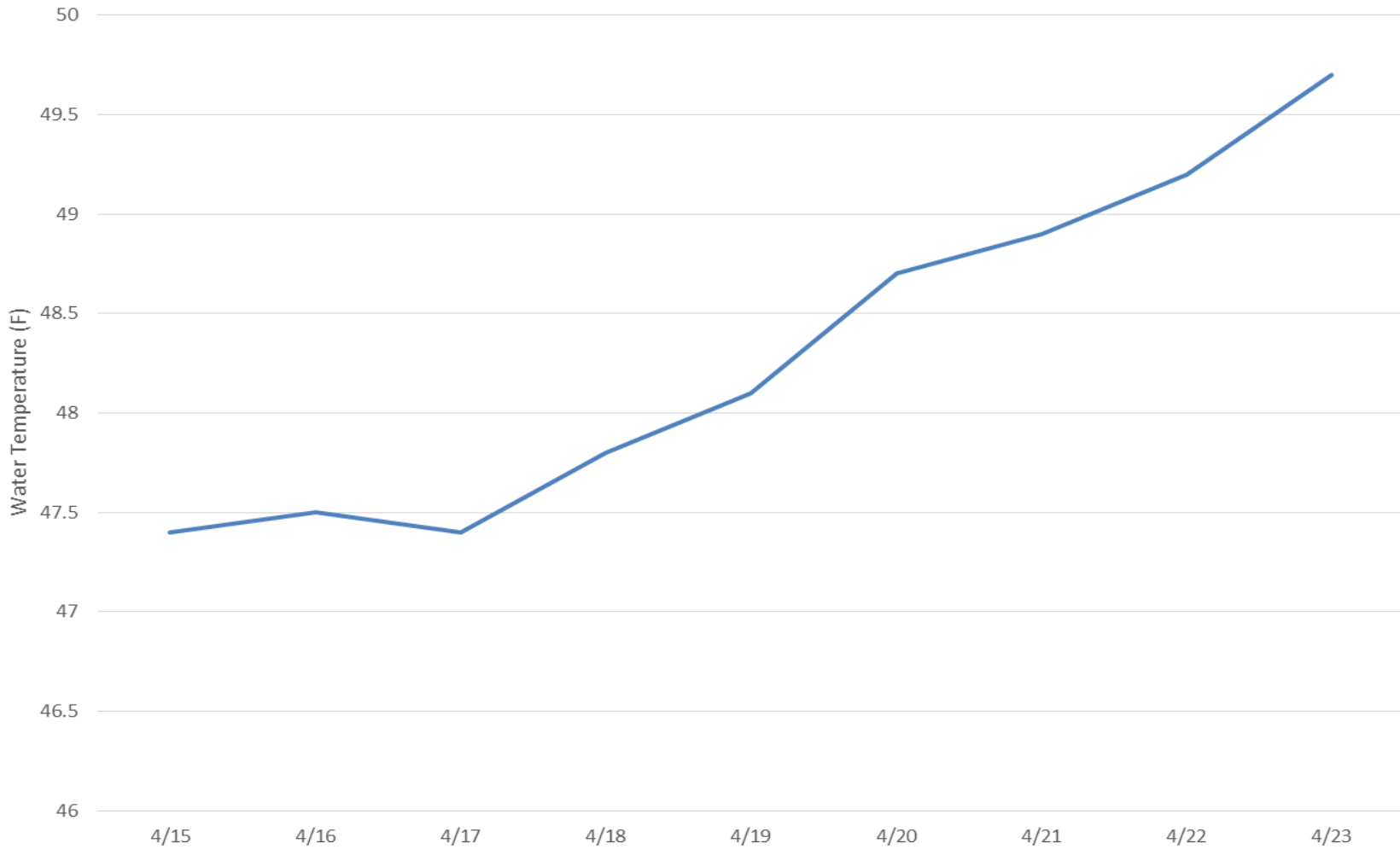
JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

Coordinating with CRITFC and Tribes for the upcoming adult lamprey collection season starting in late May.

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

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

JDA Tailrace Water Temperature (April 15 - April 23)



JDA Collection Channel Velocity

JDA Collection Channel Velocity

Date 22-Apr-18

By: pete

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:02	62	2.90
2 - 4	2:06	126	2.81
4 - 6	3:10	190	2.81
6 - 8	4:15	255	2.77
8 - 10	5:18	318	2.86
10 - 12	6:20	380	2.90
12 - 14	7:30	450	2.57
14 - 16	8:32	512	2.90
16 - 18	9:28	568	3.21
			2.86

turbine 1 & 2 =68rpm
tw=161.9 foot msl

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	50	3.0	18
Mon	50	3.0	bypass
Tue	49	3.0	16
Wed	50	4.0	bypass
Thur	51	4.0	18
Fri	51	4.0	bypass
Sat	51	4.0	12
AVG:	50	AVG: 3.6	AVG/Sample 16
			MAX 18
			MIN 12

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.2	10.2	1.4	8.2	1.7	4.6	1.7
Sun	9.0	9.0	1.4	8.1	1.7	4.6	2.0
Mon	10.7	10.7	1.4	8.3	1.5	4.6	1.6
Mon	10.1	10.1	1.4	8.0	1.7	4.8	2.0
Tues	10.6	10.6	1.4	8.6	1.4	4.6	1.6
Tues	10.8	10.8	1.5	8.4	1.4	4.5	1.6
Wed	10.9	10.9	1.5	8.4	1.4	4.6	1.3
Wed	10.7	10.7	1.5	8.1	1.4	4.6	1.5
Thur	11.8	11.8	1.2	9.5	1.5	4.6	1.5
Thur	11.1	11.1	1.4	9.2	1.4	4.5	1.6
Fri	10.4	10.4	1.3	10.0	1.5	4.5	1.9
Fri	11.2	11.2	1.4	9.9	1.4	4.6	1.4
Sat	10.2	10.2	1.5	8.0	1.5	4.5	1.8
Sat	10.3	10.3	1.4	8.3	1.5	4.6	1.9
AVG:	10.6	10.6	1.4	8.6	1.5	4.6	1.7

JDA Bird Counts: 4/22/18 to 4/28/18

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-Apr	PHFB	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	45	22	44	22	135
22-Apr	SWFB	0	0	0	1	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	10
22-Apr	PH1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
22-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
22-Apr	SW3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Avg/Survey		9	1	0	0	6	0	0	0	0	0	0	0	34	33							162
23-Apr	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47	45	46	45	184
23-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	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	1	0	0	0	0	0	0	0	0	0	0	46	46							185
24-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47	0	46	93	186
24-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	PH1	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
24-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	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	1	0	0	0	0	0	0	0	0	0	0	24	70							190
25-Apr	PHFB	0	2	0	0	0	0	7	11	0	0	0	0	0	0	0	0	26	0	40	58	144
25-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	PH2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-Apr	PH3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
25-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	SW3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Avg/Survey		6	0	0	0	9	0	0	0	0	0	0	0	13	49							154

JDA Bird Counts: 4/22/18 to 4/28/18

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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)	
26-Apr	PHFB	0	0	0	5	0	0	10	26	0	0	0	0	0	0	0	0	11	0	73	84	209
26-Apr	SWFB	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
26-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	PH2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
26-Apr	PH3	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
26-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	SW2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
26-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		8		4		0		18		0		0		0		0		6		79		228
27-Apr	PHFB	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	15	0	64	93	180
27-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	PH2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27-Apr	PH3	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
27-Apr	SW1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27-Apr	SW2	2	4	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	8
27-Apr	SW3	0	18	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	22
Avg/Survey		20		0		0		4		0		0		3		0		8		79		225
28-Apr	PHFB	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	3	0	91	97	196
28-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	PH2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
28-Apr	PH3	9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
28-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	SW2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
28-Apr	SW3	20	11	0	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	38
Avg/Survey		27		0		0		3		0		0		4		0		2		94		256
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F	NF			F	NF			F	NF			F	NF			F	NF			
Weekly Total		140		12		0		78		0		0		13		0		261		896		1400
Avg/Survey		10		1		0		6		0		0		1		0		19		64		100