


FISHWAY STATUS REPORT

Date: 12/14/2019
Inspection Period: 12/8/2019 thru 12/14/2019



**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.
 Additional and frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 7	Temperature: 44 F
				Secchi: 6.0 Ft.
NORTH FISHWAY	OOS		Upper ladder dewatered on 12/3. All AWS pumps were shut down on 11/29 after sunset.	
Exit differential	OOS	≤ 0.5'		
Exit Control weirs	OOS	High setting	High setting is normal for JDN	
Count station differential	OOS	≤ 0.3'		
Weir crest depth (DS gauge)	OOS	1.0' ± 0.1'		
Entrance differential	OOS	1.0' - 2.0'	AVG #DIV/0!	
SOUTH FISHWAY			2 out of 3 AWS turbines in service	
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 8.1	
Collection channel velocity	0	1.5 - 4 fps	AVG 2.66	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.5	
Entrance weir NE1	0	depth (≥ 8')	AVG 9.5	
Entrance weir NE2	0	depth (≥ 8')	AVG 10.1	
JUVENILE PASSAGE			JBS continues in service for Kelt protection through 12/15.	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	All turbines in service will have operating STSs thru 12/15. STS removal starting 12/16.	
Turbine trashrack drawdown	0	<1.5', wkly		
Vert barrier screen drawdown	0	<1.5', wkly		
Spill volume	0	per FPP	All spillway gates on seal since 11/29 after sunset.	
Spill pattern	0	per FPP		
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

SMOLT MONITORING FACILITY

Operation:

End-of-season dewatering occurred on 12/5 PM after the critical flushing valve was fixed by JD Maintenance. The draining of fish accumulated at PDS was well coordinated. The following evacuated fish numbers were visually estimated: 15 Adult Salmonids, 3 Adult Lamprey, 1 Adult Sturgeon, 1 Juvenile Sturgeon, 100 Juvenile Lamprey, 8 large cats, 1 carp, 45 sculpins, 10 Adult Shad. All were drained into tailrace in excellent condition.

JD Fisheries was assisted by two JD Park Rangers, Olivia and Greg whose help was invaluable/critical to the fish safety and their proper evacuation from PDS.

Maintenance:

Winterization of SMF components/ pipes starting on 12/9. Planning for the upcoming winter's SCADA update underway.

Research: None

ADULT FISHWAYS & TW AVIAN GRID

Birds:

Winter birds only without much impact on JD fish passage. See Bird Count tab for details.

All 125 avian lines in place without any deficiencies.

Operations:

November STS/ VBS camera inspection complete by 11/21. All screens were found undamaged and working properly.

JD South Adult Fishway maintaining criteria with 2 AWS Turbines. Turbine 3 is currently under maintenance and will return to service by 1 March 2020.

JD North upper was dewatered on 12/3 AM. JD North lower and AWS conduit are scheduled for dewatering the next week. Thanks to JD Maintenance for holding the Safety Clearance and significant support provided to the ladder's flushing, draining and fish salvage operations! Only 5 fish total required bagging:

1 Adult Steelhead (small,) 2 Juvenile Steelhead, 1 juvenile SMB and 1 sculpin. All were released into Tailrace in excellent condition.

JBS continues in service for Kelt protection thru 12/15. STSs will be removed for winter maintenance starting 12/16.

MU Gatewell Drawdown All MUs trashrack differentials are 1.5' or below according to twice a week inspections.

Maintenance:

JD South Fishway continues operating with two AWS turbines (No. 1 & 2) since early April. AWS turbine No. 3 waiting for the replacement of its thrust bearing which is on order/ in contracting (at approx. \$ 20 K.)

JD North Fishway continues operating in criteria. However, 2 out of 6 ASW pumps are OOS due to auto greaser and oil leaks issues since mid June.

JD Maintenance unstacked pump 3 during the trouble shooting efforts in August - September. Both pumps are expected to be available for service, for 2020 passage season starting on 1 March.

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

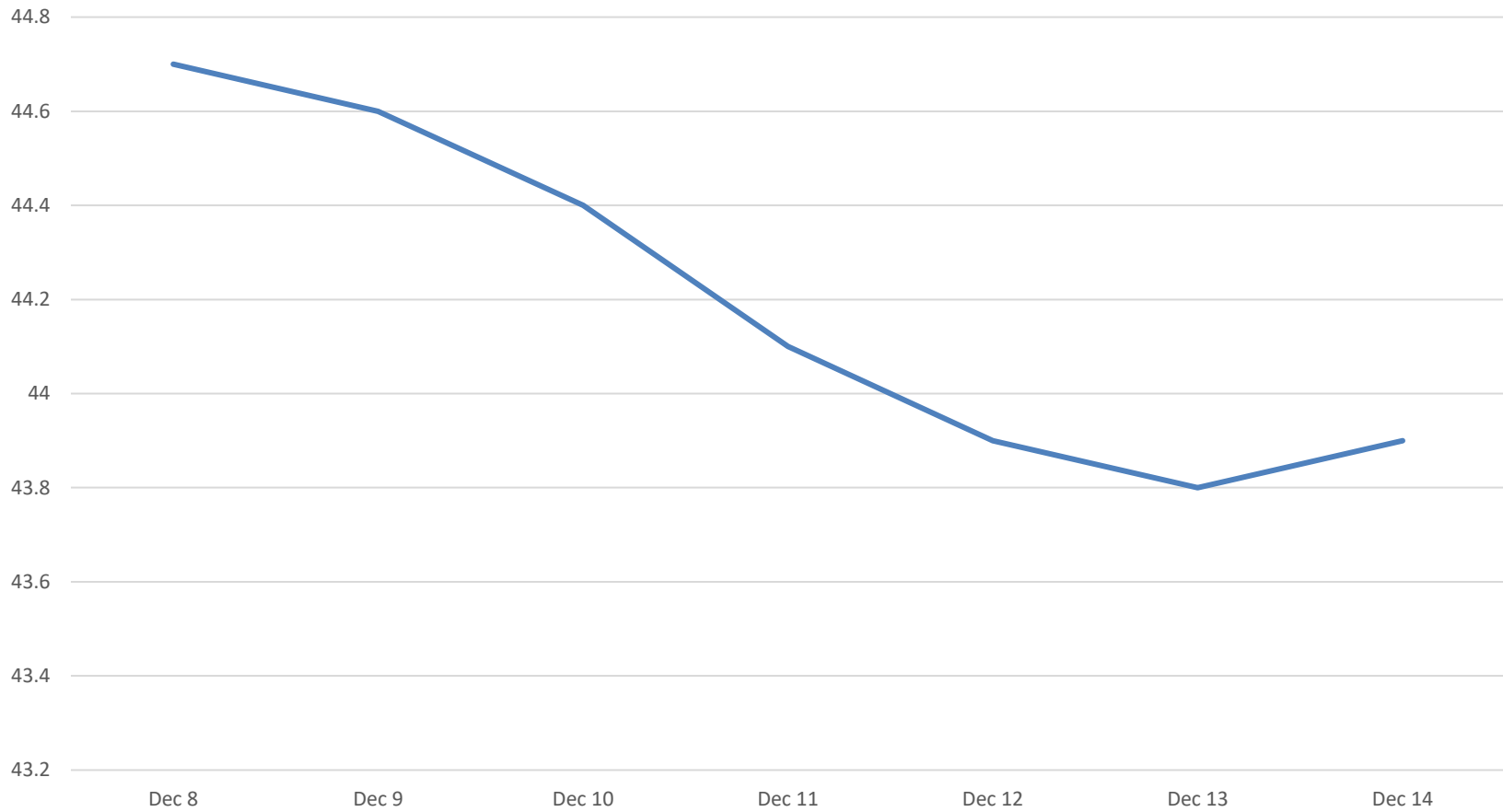
Research:

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

Uof I crew continues monitoring the RT Adult Lamprey passage at both JD Adult Fishways.

Approved by: Ron Twiner, Acting OPM

JDA Tailwater Temperature 12/8/19 - 12/14/19



JDA Collection Channel Velocity

Date	12-Dec-19
By:	MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:07	67	2.69
2 - 4	2:11	131	2.81
4 - 6	3:19	199	2.65
6 - 8	4:27	267	2.65
8 - 10	5:32	332	2.77
10 - 12	6:41	401	2.61
12 - 14	7:55	475	2.43
14 - 16	9:10	550	2.40
16 - 18	10:12	612	2.90
			2.66

Bay 19 TW Level

Turbine 1 RPM

Turbine 2 RPM

Turbine 3 RPM

FPP Criteria: 1.5–4.0 feet per second (2 fps optimum)

John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	45	6.0	NA
Mon	45	6.0	NA
Tue	44	6.0	NA
Wed	44	6.0	NA
Thur	44	6.0	NA
Fri	44	6.0	NA
Sat	44	6.0	NA
AVG:	44.2	AVG: 6.0	AVG/Sample #DIV/0!
			MAX 0
			MIN 0

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	9.4	9.9	1.5	8.0	oos	4.6	1.5
Sun					oos		
Mon	9.6	10.1	1.4	8.0	oos	4.6	1.6
Mon					oos		
Tues	9.7	10.2	1.4	8.1	oos	4.5	1.5
Tues					oos		
Wed	9.4	10.0	1.4	8.0	oos	4.6	1.5
Wed					oos		
Thur	9.8	10.4	1.4	8.0	oos	4.5	1.4
Thur					oos		
Fri	9.4	9.9	1.5	8.2	oos	4.6	1.6
Fri					oos		
Sat	9.4	9.9	1.4	8.1	oos	4.6	1.6
Sat					oos		
AVG:	9.5	10.1	1.4	8.1	#DIV/0!	4.6	1.5

JDA Bird Counts: 12/8/19 to 12/14/19

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)	
8-Dec	PHFB	0	0	311	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	312
8-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Dec	PH1	25	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
8-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Dec	SW1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8-Dec	SW2	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
8-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		13		156		6		7		0		0		0		0		1		0		362
9-Dec	PHFB	0	0	159	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	160
9-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Dec	PH1	17	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
9-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		9		80		3		0		0		0		0		0		1		0		182
10-Dec	PHFB	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4
10-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Dec	PH1	13	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
10-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Dec	SW2	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	41
10-Dec	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		0		3		21		0		0		0		0		1		0		63
11-Dec	PHFB	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	2	0	0	0	8
11-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	PH1	17	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
11-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
11-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
11-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	SW2	0	0	0	0	0	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	64
11-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		9		2		1		35		0		0		3		0		1		0		98

JDA Bird Counts: 12/8/19 to 12/14/19

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)	
12-Dec	PHFB	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	2	0	0	0	20
12-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	PH1	21	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
12-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SW2	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
12-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		11		0		4		31		0		0		0		0		1		0		92
13-Dec	PHFB	0	0	75	0	0	0	15	0	0	0	0	0	0	0	0	0	1	0	0	0	91
13-Dec	SWFB	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
13-Dec	PH1	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
13-Dec	PH2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
13-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW3	0	0	0	0	0	0	31	0	0	0	0	0	2	0	0	0	0	0	0	0	33
Avg/Survey		9		43		0		23		0		0		1		0		1		0		151
14-Dec	PHFB	0	0	103	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
14-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	PH1	11	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
14-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	SW1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14-Dec	SW2	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	47
14-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		6		52		4		24		0		0		0		0		0		0		169
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		124		661		39		278		0		0		7		0		8		0		1117
Avg/Survey		9		47		3		20		0		0		1		0		1		0		80

John Day Dam
Avian Zones

