# FISHWAY STATUS REPORT

Date:	4/14/2018		
Inspection Period:	4/8/2018	thru	4/14/2018



US Army Corps of Engineers Portland District

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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: 46 F
	Out of Criteria	Limit	Secchi: 4.8 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 1.5
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 1.2
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 10.8
Entrance weir NE2	0	depth (≥ 8')	AVG 10.9
JUVENILE PASSAGE	0		In service since 2/28, with all STSs deployed by 3/30/18.
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6
Submersible traveling screens	0	visual inspect	MU 11 OOS and MU 15 OOS on 4/8, Sunday due to failed STS motors. Both RTS on 4/9.
Turbine trashrack drawdown	0	<1.5', wkly	MUs intake trashrack raking occurred on 3/29 - only small amount of debris was removed
Vert barrier screen drawdown	0	<1.5', wkly	
Spill volume	0	per FPP	Fish Spill at Gas Cap started on 4/10/18.
Spill pattern	0	per FPP	Two TSWs, bays 18 & 19 open since 4/10, 8 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. 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.

Installation of all avian lines by a contractor completed by 3/30/18. Minor connecting hardware mods underway. USDA boat hazing planned for the second half of April. The Spillway section's new tensioning winches have been already installed and will allow for the lines' adjustments.

#### **Operations:**

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.

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

### Maintenance:

MU 11 and MU 15 OOS due to failed STS motors on 4/8. Maintenance replaced them with working STSs and both MUs returned to service on 4/9, Monday.

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. It will be replaced with spare the next week starting 4/2/18.

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

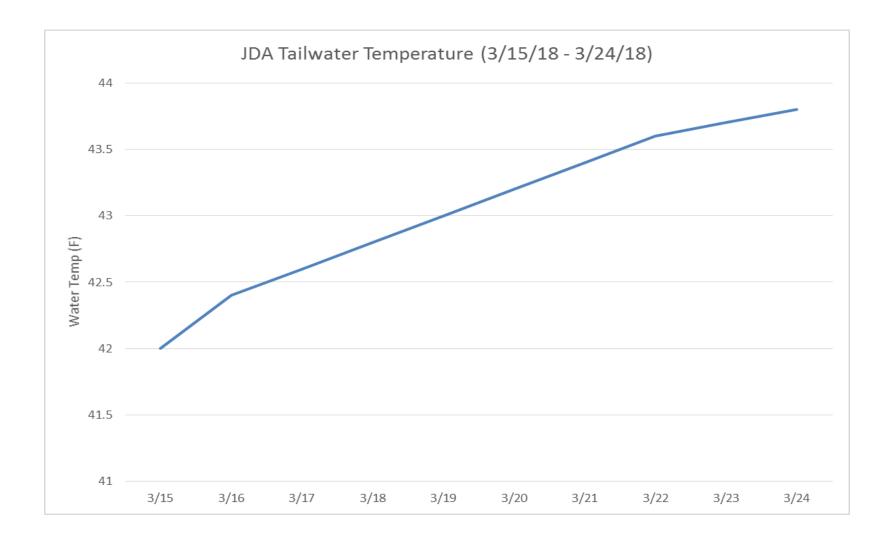
## Research:

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.





# 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



	Temp:	Secchi:	Fallbacks
Sun	46	4.5	52
Mon	45	4.5	bypass
Tue	46	4.5	19
Ned	46	5.0	bypass
۲hur	46	5.0	17
Fri	46	5.0	bypass
Sat	47	5.0	6
VG:	46	AVG: 4.8 A	VG/Sample 24

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.3	10.4	1.1	8.3	1.6	4.6	1.7
Sun	11.1	11.2	1.1	9.0	1.6	4.6	1.6
Mon	10.5	10.6	1.3	8.2	1.6	4.6	1.6
Mon	11.9	12.0	1.1	8.3	1.4	4.5	1.6
Tues	11.3	11.3	1.2	8.2	1.6	4.6	1.6
Tues	11.1	11.1	1.4	8.2	1.7	4.6	1.3
Wed	11.2	11.2	1.0	8.6	1.5	4.5	1.8
Wed	10.5	10.5	1.3	8.0	1.6	4.6	1.6
Thur	11.1	11.1	1.3	8.7	1.5	4.6	1.3
Thur	10.9	10.9	1.3	8.4	1.5	4.6	1.7
Fri	11.7	11.7	1.2	9.0	1.4	4.5	1.9
Fri	10.7	10.7	1.3	9.4	1.4	4.5	1.7
Sat	9.4	9.4	1.4	8.1	1.6	4.5	1.8
Sat	9.8	9.8	1.4	8.5	1.6	4.5	1.7
AVG:	10.8	10.9	1.2	8.5	1.5	4.6	1.6

## JDA Bird Counts: <u>4/8/18</u> to <u>4/14/18</u>

NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

Date	Zone		Ģ	iulls			Corr	morant	:		Caspia	an tern			White	e Pelica	n	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-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	5	11
8-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Apr	PH1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Su	-	0		1		0		0		0		0		0		0		0		6		12
	PHFB	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	18
9-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr		0	0	0	0	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	9
9-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr		0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Su		0		1		3		3	r	0		0		0	1	0		4		4		28
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	11	4	0	20
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr		0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Su		0		1		2		0	1	0		0		0	1	0		8		2	T	26
11-Apr		0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	9	8	0	0	28
11-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr		0	0	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
11-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr		7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Avg/Su	urvey	4		0		4		6		0		0		0		0		9		0		44

# JDA Bird Counts:4/8/18to4/14/18NF(1): Non-Forage AM SurveyNF(2): Non-Forage PM Survey

**Caspian tern** Date Zone Gulls Cormorant White Pelican Grebe Total F(1) F(2) NF(1) NF(2) NF(1) NF(2) F(1) NF(2) F(1) F(2) NF(1) NF(2) F(1) NF(1) NF(2) F(1) F(2) F(2) NF(1) F(2) 12-Apr PHFB 12-Apr SWFB 12-Apr PH1 12-Apr PH2 12-Apr PH3 12-Apr SW1 12-Apr SW2 12-Apr SW3 Avg/Survey 13-Apr PHFB 13-Apr SWFB 13-Apr PH1 13-Apr PH2 13-Apr PH3 13-Apr SW1 13-Apr SW2 13-Apr SW3 Avg/Survey 14-Apr PHFB 14-Apr SWFB 14-Apr PH1 14-Apr PH2 14-Apr PH3 14-Apr SW1 14-Apr SW2 14-Apr SW3 Avg/Survey 

Totals	Gulls		Cormorant C				Cas	Caspian tern White Pelica					lican		Total					
	F	NF		F		NF	NF F			NF		F		NF		F		NF		
eekly Total	52	5		21		56		0		0		2		0		<b>150</b>		23		309
vg/Survey	4	0		2		4		0		0		0		0		11		2		22