### **FISHWAY STATUS REPORT**

**Date:** 6/16/2018

**Inspection Period:** 6/10/2018 thru 6/16/2018

### 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:		<b>59</b> F
	Out of Criteria	Limit			Secchi:	<b>3.3</b> Ft.	
NORTH FISHWAY			In service with all 6 AWS pumps total ava	ailable.			
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	1.3' ± 0.1'	1.3' for shad passage since 5/24				
Entrance differential	0	1.0' - 2.0'	AVG 1.5				
SOUTH FISHWAY	0		In service with two AWS turbines and tw	o 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	1.3' ± 0.1'	1.3' for shad passage since 5/24				
South entrance differential	0	1.0' - 2.0'	AVG 1.3				
Entrance weir SE1	0	depth (≥ 8′)	AVG 8.2				
Collection channel velocity	0	1.5 - 4 fps	AVG 2.61				
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.7				
Entrance weir NE1	0	depth (≥ 8′)	AVG 11.1				
Entrance weir NE2	0	depth (≥ 8′)	AVG 11.0				
JUVENILE PASSAGE	0		In service since 2/28.				
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6				
Submersible traveling screens	0	visual inspect	Monthly STS camera inspection schedule	ed for w	eek of 6/18.		
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	Summer spill operations started on 6/16	per FOF	).		
Spill pattern	0	per FPP	Two TSWs, bays 18 & 19 open since 4/10	0/18 AM			
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

#### SMOLT MONITORING FACILITY

#### Operation:

SMF was in every day/ 24 hrs sampling 5/26 - 6/4 due to special TDG operations monitoring. Regular, every other day sampling restarted on 6/5.

#### Maintenance:

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:

White pelicans continue increasing on the island downstream of BRZ and inside of the BRZ. 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:

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

#### Research:

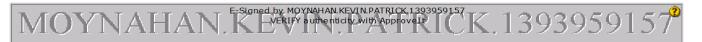
JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

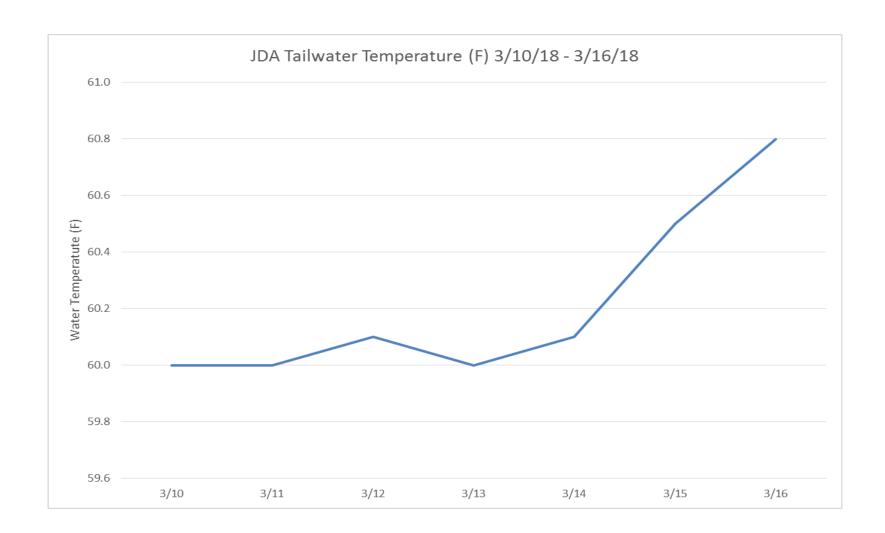
An orientation meeting with CRITFC and Tribes for the upcoming adult lamprey collection occurred on 6/12. JD South Trap was deployed the same day.

JD Mechanical installed the JD North LPS water supply pumps by 6/1. LPS operations by FFU assisted by JD Fisheries to start soon.

WDFW NPM angling from JD PH Tailrace deck continues since 5/1. Catches increased significantly the past week with 444 NPM caught thru 6/10.

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





# **JDA Collection Channel Velocity**

Date	15-Jun-18
Ву:	MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:09	69	2.61
2 - 4	2:19	139	2.57
4 - 6	3:25	205	2.73
6 - 8	4:37	277	2.50
8 - 10	5:49	349	2.50
10 - 12	6:58	418	2.61
12 - 14	8:17	497	2.28
14 - 16	9:25	565	2.65
16 - 18	10:24	624	3.05
			2.61

Bay 19 TW: 161.5

turbine 2-3=68rpm

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



## John Day Weekly Averages

	Temp:
Sun	60
Mon	60
Tue	60
Wed	60
Thur	60
Fri	60
Sat	61

Secchi:
3.0
3.5
4.0
4.5
4.5
5.0
5.0

Fallbacks
75
124
120

AVG:	60

AVG:	4.2	AVG/Sample	106
		MAX	124
		MIN	75

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.8	10.8	1.3	8.0	1.4	4.5	1.5
Sun	11.0	11.0	1.4	8.1	1.4	4.5	1.6
Mon	11.1	11.1	1.4	8.1	1.4	4.5	1.6
Mon	11.0	11.0	1.4	8.1	1.5	4.5	1.4
Tues	11.1	11.1	1.4	8.3	1.6	4.6	1.6
Tues	11.2	11.2	1.4	8.2	1.5	4.6	1.7
Wed	9.5	9.5	1.3	8.0	1.1	4.5	1.6
Wed	9.7	9.7	1.3	8.2	1.4	4.4	1.5
Thur	9.1	9.1	1.6	7.7	1.4	4.6	1.5
Thur	9.1	9.1	1.6	8.6	1.5	4.6	1.8
Fri	9.5	9.5	1.5	8.6	1.4	4.6	1.8
Fri	10.3	10.3	1.3	8.0	1.5	4.6	1.4
Sat	9.2	9.2	1.4	8.1	1.6	4.5	1.8
Sat	9.4	9.4	1.2	8.2	1.6	4.6	1.5
AVG:	10.1	10.1	1.4	8.2	1.5	4.5	1.6

JDA Bird Counts: <u>6/10/18</u> to <u>6/16/18</u>

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

Date	Zone		G	iulls			Cor	morant	:		Caspia	n tern			White	e Pelica	ın	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)	
10-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42	40	0	0	82
10-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jun	PH3	0	2	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	13
10-Jun	SW1	10	8	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	22
10-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jun	SW3	3	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	0	14
Avg/Su		1	2	(	)		0	(	)		0	(	)	1	.3	(	)		1	(	)	131
11-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	39	37	0	0	80
11-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jun		0	0	0	0	0	0	0	0	0	0	0	0	4	10	0	0	0	0	0	0	14
11-Jun		10	8	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	22
11-Jun		0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
11-Jun		6	3	0	0	0	0	0	0	0	0	0	0	8	7	0	0	0	0	0	0	24
Avg/Su			4		)		0		)		0		)		20		)		8		)	142
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	20	0	16	76
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	0	10
12-Jun		8	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	16
12-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jun		2	0	0	0	0	0	0	0	0	0	0	0	6	4	0	0	0	0	0	0	12
Avg/Su			5		)		)		)		0		)	ı	1		)		0		3	127
13-Jun		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	35	28	0	0	64
13-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
13-Jun		0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	5
13-Jun		0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	11
13-Jun		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
13-Jun 13-Jun		12	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	17
		12 0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	17
13-Jun Avg/Su		L	7 7	U	U	0	0	0	l O	0	0	l O	U	1 1	0	0	0	0	0		0	107
Avg/St	urvey		7		L	(	U	(	J		U	(	,	1	.U		•	3	2	(	J	107

## JDA Bird Counts: <u>6/10/18</u> <u>to</u> <u>6/16/18</u>

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

Date	Zone	Gulls					Cormorant				Caspia	n tern			White	e Pelica	ın	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)	
14-Jun	PHFB	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	23	0	0	54
14-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
14-Jun	PH1	7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	9
14-Jun	PH2	0	2	0	0	0	0	0	0	0	0	0	0	14	28	0	0	0	0	0	0	44
14-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	3	0	0	0	0	10
14-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
14-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	3
Avg/Su			5	(	)	(	)	(	)		0	(	)	2	9	4	1	2	27		0	129
15-Jun	PHFB	0	0	1	16	0	0	0	0	0	0	0	0	0	0	1	0	25	30	0	0	73
15-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jun		3	0	0	0	0	0	0	0	0	0	0	0	22	7	0	0	0	0	0	0	32
15-Jun		0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	24
15-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Jun		0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
15-Jun		0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	3	0	0	0	0	16
Avg/Su			2	9	9	(	)	(	)		0		)	3	5		2	_	28		0	149
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	16	0	0	33
16-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	21	7	0	0	0	0	0	0	28
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	0	15
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	2	3	12	0	0	0	0	0	17
16-Jun		0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	5
Avg/Su	ırvey		0	(	0	(	)	(	)		0	(	0	2	7	8	3	1	.7		0	102

Totals	(	Gulls	Cori	morant	Caspia	ın tern	White	e Pelican	G	Total	
	F	NF	F	NF	F	NF	F	NF	F	NF	
Weekly Total	87	18	0	0	0	0	306	38	422	16	887
Avg/Survey	6	1	0	0	0	0	22	3	30	1	63