### **FISHWAY STATUS REPORT**

**Date:** 12/2/2017

**Inspection Period:** 11/26/2017 thru 12/2/2017

### 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:	13	Temperature:	<b>49</b> F
	Out of Criteria	Limit			Secchi:	<b>6.0</b> Ft.
NORTH FISHWAY			Scheduled for its annual dewat	ering on 12/4/1	7. OOS since 12/1	AM.
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			In service since 3/3/17 with 2 ou	it of 3 AWS turb	ines available.	
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 8.8			
Collection channel velocity	0	1.5 - 4 fps	AVG 2.35			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.6			
Entrance weir NE1	0	depth (≥ 8')	AVG 9.9			
Entrance weir NE2	0	depth (≥ 8')	AVG 9.8			
JUVENILE PASSAGE			JBS will continue in service throu	gh 12/15/17 fo	r kelt passage prote	ection.
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6			
Submersible traveling screens	0	visual inspect	STS camera inspection for Nover	nber completed	by 11/22. All scree	ns found in good condition.
Turbine trashrack drawdown	0	<1.5', wkly	Trashrack Crane in service since	6/01.		
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	per FPP	Bay 2 at 1.6 cfs for adult attraction	on to the North	Fishway entrance 1	Sept. thru 30 Nov.
Spill pattern	0	per FPP	Bay 2 only.			
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

#### **SMOLT MONITORING FACILITY**

#### Operation:

End-of-season dewatering of SMF was performed on 11/30. Estimated 200 fish (100 adult salmonids) were evacuated from the PDS via the adult drain pipe. SMF will return to service on 1 March 2018 which is one month earlier than the normal starting date at JD, per FPOM request.

#### Maintenance:

SMF SCADA update/mods' investigation by JD Electrical/ Portland District Engineers is underway.

Research: None

#### Birds:

A large number of the overwintering, migratory gulls and other aquatic birds feeding extensively on the abundant juvenile shad in the PH Tailrace BRZ. see the Avian Numbers tab.

6 Tower-to-Tower, 6 Spillway, 6 Navlock (2 failed on 11/02) and 7 PH lines are missing out of 125 grid's total.

The avian lines' reinstallation contract was awarded in November and work is slated to commence in late December 2017.

#### Operations:

Bay 2 at 1.6 cfs for adult attraction to the North Fishway entrance 1 Sept. thru 30 Nov.

JD South Fishway in service with two AWS Turbines and meeting all FPP criteria since 3/3/17.

JD North Fishway OOS since 12/1 AM and is scheduled for dewatering on 12/04.

MU Gatewell Drawdowns: weekly or more frequently as necessary.

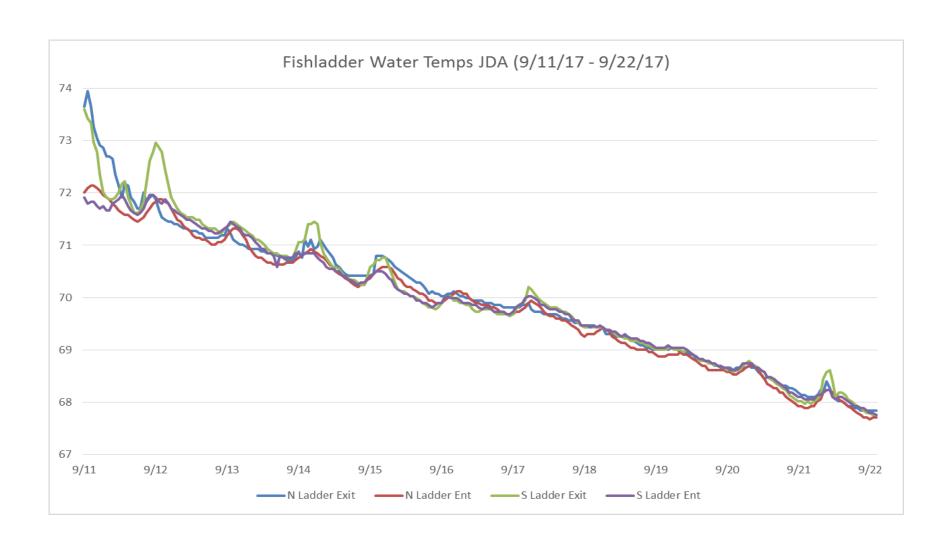
#### Maintenance:

JD STS crane's emergency repairs were all completed in February with the minor glitches/ adjustments continuing. The crane remains in a risky operational condition until it's replaced with a brand new machine. However, the \$ 5 million for its replacement is not yet available.

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

#### Research:

PSMFC crew continues with the Wi-Fi installation for the adult PIT Systems. Both ladders will be ready to detect PITs by 1 March 2018.



# **JDA Collection Channel Velocity**

Date	18-Oct-17
Ву:	MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:20	80	2.25
2 - 4	2:39	159	2.28
4 - 6	4:00	240	2.22
6 - 8	5:27	327	2.07
8 - 10	6:40	400	2.47
10 - 12	7:54	474	2.43
12 - 14	9:10	550	2.37
14 - 16	10:22	622	2.50
16 - 18	11:32	692	2.57
			2.35

TW Bay19 = 159.5

RPMs: 68/68 (2&3) (1 @ 0)

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



## John Day Weekly Averages

 Sun
 50

 Mon
 49

 Tue
 49

 Wed
 49

 Thur
 49

 Fri
 49

 Sat
 49

Secchi:	
6.0	
6.0	
6.0	
6.0	
6.0	
6.0	
6.0	

Fallbacks	
NA	

AVG: 49

AVG: 6.0 AVG NA MAX NA MIN NA

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.6	10.4	1.4	8.9	1.5	4.6	1.5
Sun	10.5	10.3	1.4	8.9	1.5	4.6	1.7
Mon	10.4	10.1	1.2	9.4	1.4	4.6	1.5
Mon	10.1	10.1	1.2	8.9	1.4	4.6	1.6
Tues	9.3	9.4	1.4	8.7	1.6	4.6	1.5
Tues	9.4	9.3	1.4	9.1	1.5	4.5	1.6
Wed	9.4	9.3	1.3	8.9	1.5	4.5	1.7
Wed	9.4	9.4	1.3	9.2	1.5	4.5	1.7
Thur	9.8	9.8	1.4	8.3	1.5	4.5	1.7
Thur							
Fri	9.8	9.8	1.4	8.3	1.6	4.6	1.7
Fri	10.2	10.2	1.3	8.7	1.5	4.5	1.7
Sat	10.1	9.9	1.4	8.5	1.5	4.6	1.4
Sat	10.0	9.8	1.5	8.3	1.6	4.6	1.6
			· · ·			·	
AVG:	9.9	9.8	1.4	8.8	1.5	4.6	1.6

## JDA Bird Counts: <u>11/19/17</u> to <u>11/25/17</u>

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

1	Zone	Gulls			Co	rmora	ant		Cas	pian t	ern		Whi	te Pe	lican		(	Grebe	•			Total
1	ľ	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-Nov F	PHFB	0	0	0	0	0	0	34	17	0	0	0	0	0	0	0	0	0	0	0	0	51
26-Nov S	SWFB	0	0	398	427	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	825
26-Nov F	PH1	59	31	27	0	15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136
26-Nov F	PH2	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
26-Nov F	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Nov S	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Nov 9	SW2	0	0	0	0	0	0	16	14	0	0	0	0	0	0	0	0	0	0	0	0	30
26-Nov 9		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Survey	1	53		426		10		41		0		0		0		0		0		0		1058
27-Nov F	PHFB	0	0	22	11	0	0	32	0	0	0	0	0	0	0	0	0	4	3	0	0	72
27-Nov 9		0	0	288	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	589
27-Nov F	PH1	62	39	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121
27-Nov F	PH2	12	28	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
27-Nov F	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27-Nov S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Nov S	ŀ	0	0	0	0	0	0	9	34	0	0	0	0	0	0	0	0	0	0	0	0	43
27-Nov S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Survey		72		321	1	1		38		0	-	0		0		0		4		0		869
28-Nov F	ŀ	0	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	14	0	0	0	52
28-Nov 9		0	0	325	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	325
28-Nov F	ŀ	44	0	11	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
28-Nov F	ŀ	27	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
28-Nov F	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Nov S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Nov 9	ŀ	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
28-Nov S		0 36	0	0 <b>169</b>	0	0 2	0	0 <b>28</b>	0	0	0	0	0	0	0	0	0	7	0	0	0	480
Nov. F			0		0		0			_	0											400
29-Nov F 29-Nov S		0	0	0	0 1311	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	5 0	1313
29-Nov 5	ŀ		0 87	0 8	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
29-Nov F	ŀ	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
29-Nov F	ŀ		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
29-Nov S	ŀ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Nov S	ŀ	0	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	35
29-Nov S		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Survey		98	U	660	J	1	J	19		0	5	0	<u> </u>	0		0		0		3	- 0	1559

JDA Bird Counts: ### to ###

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

Date	Zone	Gulls			Co	rmora	ant		Cas	pian t	ern		Whi	te Pe	lican			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)	
30-Nov	PHFB	0	0	16	555	0	0	11	0	0	0	0	0	0	0	0	0	0	0	6	0	588
30-Nov	SWFB	0	0	514	251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	765
30-Nov	PH1	95	87	0	0	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
30-Nov	PH2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
30-Nov	PH3	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20
30-Nov	SW1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	3	7
30-Nov	SW2	0	0	0	0	0	0	14	50	0	0	0	0	0	0	0	0	0	0	0	0	64
30-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Surve	У	94		668		8		50		0		0		0		0		0		5		1646
1-Dec	PHFB	0	0	970	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	977
1-Dec	SWFB	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
1-Dec	PH1	150	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155
1-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5
1-Dec	SW2	0	0	0	0	0	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	49
1-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Surve	У	75		498		3		25		0		0		0		0		0		6		1211
2-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6
2-Dec	SWFB	0	0	977	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	977
2-Dec	PH1	41	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
2-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Dec	SW2	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	50
2-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
lvg/Surve	У	21		489		2		25		0		0		0		0		0		3		1078

Totals	Gulls		Co	rmorant Caspian				pian	tern		Whi	ican	Grebe						Total	
	F	NF			F NF		F			NF		F		NF		F		NF		
eekly Total	894	6458		50		446		0		0		0		0		21		32		7901
vg/Survey	64	461		4		32		0		0		0		0		2		2		564