

# FISHWAY STATUS REPORT

**Date:** 12/28/2019  
**Inspection Period:** 12/22/2019 thru 12/28/2019

## 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: 6	Temperature: 43 F
				Secchi: 6.0 Ft.
<b>NORTH FISHWAY</b>	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		
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!	
<b>SOUTH FISHWAY</b>			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 2.57	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.5	
Entrance weir NE1	0	depth (≥ 8')	AVG 9.2	
Entrance weir NE2	0	depth (≥ 8')	AVG 9.6	
<b>JUVENILE PASSAGE</b>			Screens pulled on all units except MU 5. JBS in winter operation.	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect		
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 entrance dewatered on 12/10 followed by the AWS on 12/11

JBS in Winter operation with crest gate raised.

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.

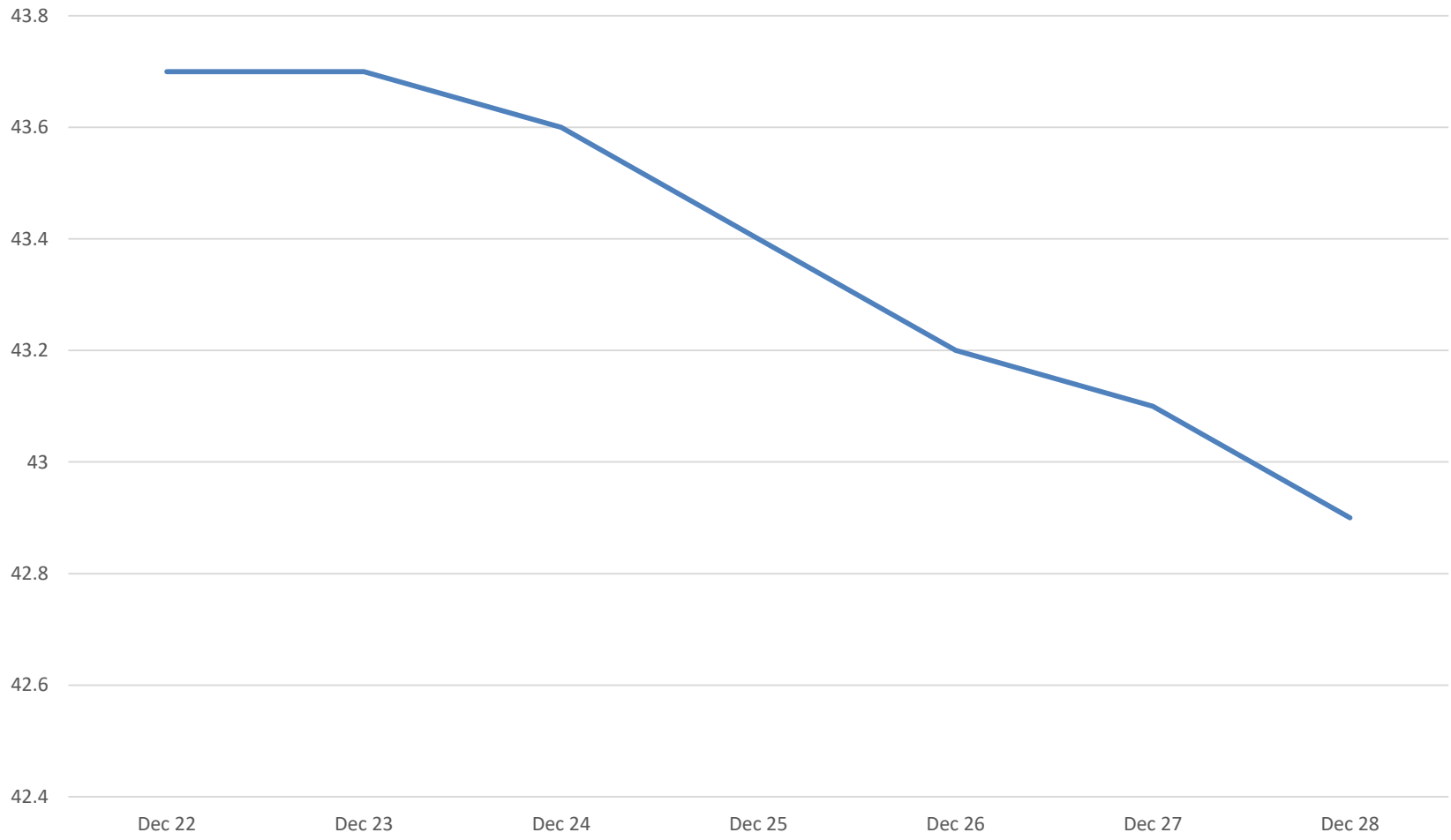
Calibration: All gauges/ sensors are within the criteria of 0.3' .

### Research:

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

Approved by: Ron Twiner, Acting OPM

JDA Tailwater Temperature 12/22 - 12/28



## JDA Collection Channel Velocity

<b>Date</b>	<i>27-Dec-19</i>
<b>By:</b>	<i>LR</i>

Bay(s)	Time	Sec.	Velocity (f/s)
<i>0-2</i>	<i>1:27</i>	<i>87</i>	<i>2.07</i>
<i>2 - 4</i>	<i>2:40</i>	<i>160</i>	<i>2.47</i>
<i>4 - 6</i>	<i>3:55</i>	<i>235</i>	<i>2.40</i>
<i>6 - 8</i>	<i>4:43</i>	<i>283</i>	<i>3.75</i>
<i>8 - 10</i>	<i>5:52</i>	<i>352</i>	<i>2.61</i>
<i>10 - 12</i>	<i>7:03</i>	<i>423</i>	<i>2.54</i>
<i>12 - 14</i>	<i>8:17</i>	<i>497</i>	<i>2.43</i>
<i>14 - 16</i>	<i>9:31</i>	<i>571</i>	<i>2.43</i>
<i>16 - 18</i>	<i>10:44</i>	<i>644</i>	<i>2.47</i>
			<b>2.57</b>

Bay 19 TW	Level	159.5
Turbine 1	RPM	68
Turbine 2	RPM	68
Turbine 3	RPM	OOS

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

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	43	6.0	NA
Mon	43	6.0	NA
Tue		6.0	NA
Wed		6.0	NA
Thur	43	6.0	NA
Fri	43	6.0	NA
Sat	43	6.0	NA
<b>AVG:</b>	<b>43.1</b>	<b>AVG: 6.0</b>	<b>AVG/Sample #DIV/0!</b>
			<b>MAX 0</b>
			<b>MIN 0</b>

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	9.0	9.5	1.4	8.0	OOS	4.7	1.4
Sun					OOS		
Mon	9.2	9.5	1.4	8.1	OOS	4.5	1.7
Mon					OOS		
Tues					OOS		
Tues					OOS		
Wed					OOS		
Wed					OOS		
Thur	9.5	10.0	1.4	8.0	OOS	4.5	1.5
Thur					OOS		
Fri	8.9	9.4	1.5	8.0	OOS	4.6	1.5
Fri					OOS		
Sat	9.0	9.5	1.4	8.0	OOS	4.5	1.6
Sat					OOS		
<b>AVG:</b>	<b>9.2</b>	<b>9.6</b>	<b>1.4</b>	<b>8.1</b>	<b>#DIV/0!</b>	<b>4.6</b>	<b>1.5</b>



**JDA Bird Counts: 12/22/19 to 12/28/19**

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)	
22-Dec	PHFB	0	0	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138
22-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	PH1	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
22-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	SW2	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	29
22-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		2		69		4		15		0		0		0		0		0		0		177
23-Dec	PHFB	0	0	82	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	93
23-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Dec	PH1	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	10
23-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Dec	SW1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
23-Dec	SW2	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	22
23-Dec	SW3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Avg/Survey		6		41		2		17		0		0		1		0		0		0		131
24-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-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		0		0		0		0		0		0		0		0		0		0		0
25-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-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		0		0		0		0		0		0		0		0		0		0		0

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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-Dec	PHFB	0	0	35	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37
26-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Dec	PH1	22	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
26-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
26-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Dec	SW2	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	47
26-Dec	SW3	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Avg/Survey		11		18		7		27		0		0		2		0		0		0		127
27-Dec	PHFB	0	0	15	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
27-Dec	SWFB	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
27-Dec	PH1	13	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
27-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
27-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Dec	SW2	0	0	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	48
27-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		7		13		5		24		0		0		0		3		0		0		101
28-Dec	PHFB	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
28-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Dec	PH1	18	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
28-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Dec	PH3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	8
28-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Dec	SW2	0	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43
28-Dec	SW3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Avg/Survey		9		1		9		22		0		0		0		3		0		0		86
<b>Totals</b>		<b>Gulls</b>				<b>Cormorant</b>				<b>Caspian tern</b>				<b>White Pelican</b>				<b>Grebe</b>				<b>Total</b>
		F		NF		F		NF		F		NF		F		NF		F		NF		
<b>Weekly Total</b>		67		282		53		206		0		0		4		10		0		0		622
<b>Avg/Survey</b>		5		20		4		15		0		0		0		1		0		0		44



John Day Dam  
Avian Zones

