

# FISHWAY STATUS REPORT

**Date:** 11/2/2019  
**Inspection Period:** 10/27/2019 thru 11/2/2019

## 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 OOB	Criteria Limit	Total Number of Inspections: 14	Temperature: 55 F
				Secchi: 6.0 Ft.
<b>NORTH FISHWAY</b>			In service with 4 out of 6 AWS pumps available	
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 1.6	
<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	1	depth (≥ 8')	AVG 8.2	OOB at 7/9' on 10/29 AM. Adjusted immediately to > 8.0' depth.
Collection channel velocity	0	1.5 - 4 fps	AVG 2.43	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.6	
Entrance weir NE1	0	depth (≥ 8')	AVG 9.1	
Entrance weir NE2	0	depth (≥ 8')	AVG 9.5	
<b>JUVENILE PASSAGE</b>				
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	October STS inspection incomplete due to camera device damaged by new crane on 10/28.	
Turbine trashrack drawdown	0	<1.5', wkly	N/A Trashrack raking completed by 10/31. Very little debris was found.	
Vert barrier screen drawdown	0	<1.5', wkly	N/A	
Spill volume	0	per FPP	1.6 Kcfs at bay 2 during daylight hours only	
Spill pattern	0	per FPP	Bay 2 open at 1.6K during daylight hours for adult attraction to North Entrance since 9/1.	
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

## SMOLT MONITORING FACILITY

### Operation:

SMF in bypass for the pit detection only since 9/15; it will continue through the end of November.

### Maintenance:

No maintenance issues of any kind at this time. Planning for the upcoming winter's SCADA update underway.

### Research: None

## ADULT FISHWAYS & TW AVIAN GRID

### Birds:

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

All 125 avian lines in place without any deficiencies.

### Operations:

October STS inspection incomplete due to the camera device hit by the new Gantry Crane on 10/28. Slight camera damage is being fixed by JD Maintenance.

The inspection will be completed as soon as the camera device is repaired.

Line 1 returned to service on 10/24. However, its high voltage bushing was not replaced due to the underestimated complexities of the job. JD Maintenance has repaired the old bushing with a hope that it will last until its replacement is coordinated for October 2020.

Entrance SE 1 weir's brakes and electrical control failure occurred 10/14 -10/16 resulting in 5 OOC ranging 7.4'-7.8'. Weir was fixed on 10/16.

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 its ASW pumps are OOS due to auto greaser and oil leaks issues since mid June.

JD Maintenance is planning for unstocking/ inspection of pump # 3 to determine the undelaying causes in September 2019 (expensive work at \$ 45K)

North AWS pump 4 will be next to undergo similar repairs soon after #3 is done.

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

### Research:

Four Peaks Env. adult salmonids counting at both JD fishways continues since 1 April 2019. The night video counting is ongoing as well.

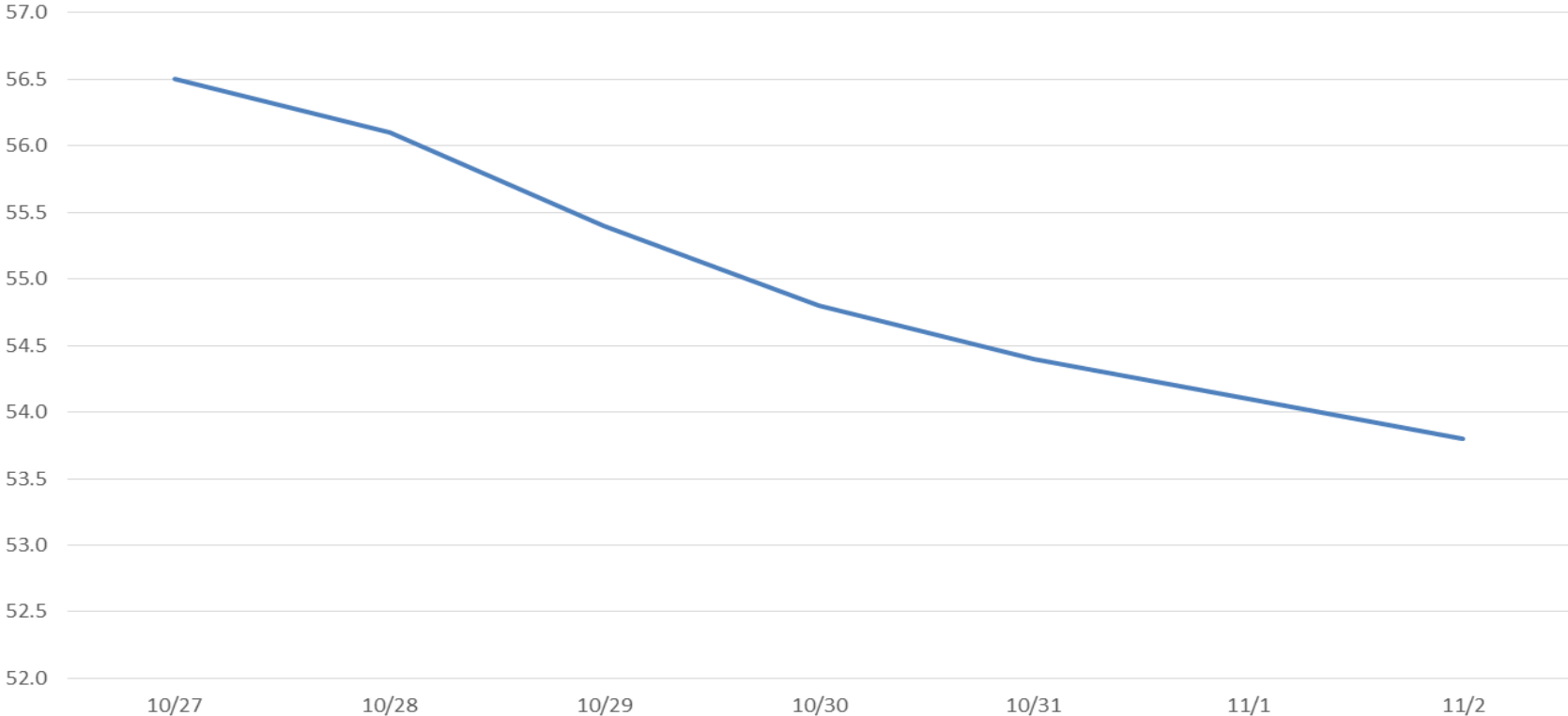
Washington F &W NPM dam angling ended with the season total of 1,835 fish in mid-September.

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 (10/27/19 - 11/2/19)



## JDA Collection Channel Velocity

<b>Date</b>	<i>30-Oct-19</i>
<b>By:</b>	<i>KRM</i>

Bay(s)	Time	Sec.	Velocity (f/s)
<i>0-2</i>	<i>1:24</i>	<i>84</i>	<i>2.14</i>
<i>2 - 4</i>	<i>2:37</i>	<i>157</i>	<i>2.47</i>
<i>4 - 6</i>	<i>3:53</i>	<i>233</i>	<i>2.37</i>
<i>6 - 8</i>	<i>5:05</i>	<i>305</i>	<i>2.50</i>
<i>8 - 10</i>	<i>6:20</i>	<i>380</i>	<i>2.40</i>
<i>10 - 12</i>	<i>7:33</i>	<i>453</i>	<i>2.47</i>
<i>12 - 14</i>	<i>8:54</i>	<i>534</i>	<i>2.22</i>
<i>14 - 16</i>	<i>10:05</i>	<i>605</i>	<i>2.54</i>
<i>16 - 18</i>	<i>11:09</i>	<i>669</i>	<i>2.81</i>
			<b>2.43</b>

Tail Water	Level	158.60
Turbines 1 & 2	RPM	68.00

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

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	57	6.0	NA
Mon	56	6.0	NA
Tue	56	6.0	NA
Wed	55	6.0	NA
Thur	55	6.0	NA
Fri	54	6.0	NA
Sat	54	6.0	NA
<b>AVG:</b>	<b>55.1</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	9.1	9.7	1.5	8.7	1.5	4.6	1.6
Sun	8.8	9.4	1.4	8.5	1.6	4.6	1.5
Mon	9.0	9.6	1.4	8.0	1.6	4.6	1.6
Mon	9.0	9.5	1.4	8.1	1.6	4.6	1.5
Tues	9.4	9.9	1.4	7.9	1.7	4.5	1.5
Tues	8.7	9.3	1.4	8.1	1.8	4.6	1.7
Wed	9.3	9.8	1.3	8.0	1.4	4.6	1.6
Wed	9.1	8.7	1.4	8.4	1.8	4.5	1.5
Thur	9.1	9.6	1.5	8.0	1.5	4.6	1.5
Thur	8.9	9.4	1.5	8.0	1.6	4.6	1.5
Fri	9.4	9.9	1.2	8.0	1.7	4.5	1.5
Fri	8.6	9.2	1.3	8.4	1.6	4.6	1.6
Sat	9.2	9.8	1.4	8.0	1.5	4.5	1.8
Sat	9.1	9.7	1.5	8.0	1.6	4.6	1.5
<b>AVG:</b>	<b>9.1</b>	<b>9.5</b>	<b>1.4</b>	<b>8.2</b>	<b>1.6</b>	<b>4.6</b>	<b>1.6</b>



**JDA Bird Counts: 10/27/19 to 11/2/19**

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)	
27-Oct	PHFB	0	14	0	0	0	2	0	0	0	0	0	0	0	0	0	0	34	56	33	0	139
27-Oct	SWFB	0	0	644	698	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1342
27-Oct	PH1	167	215	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	394
27-Oct	PH2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
27-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Oct	SW1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
27-Oct	SW2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
27-Oct	SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Avg/Survey</b>		<b>211</b>		<b>671</b>		<b>7</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>45</b>		<b>17</b>		<b>1903</b>
28-Oct	PHFB	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	59	69	0	0	130
28-Oct	SWFB	610	0	0	544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1154
28-Oct	PH1	59	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
28-Oct	PH2	45	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
28-Oct	PH3	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
28-Oct	SW1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
28-Oct	SW2	21	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	36
28-Oct	SW3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
<b>Avg/Survey</b>		<b>454</b>		<b>272</b>		<b>1</b>		<b>8</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>64</b>		<b>0</b>		<b>1596</b>
29-Oct	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	80	0	0	150
29-Oct	SWFB	0	0	700	600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1300
29-Oct	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Oct	PH2	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
29-Oct	PH3	80	40	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
29-Oct	SW1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
29-Oct	SW2	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
29-Oct	SW3	15	0	0	0	0	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	95
<b>Avg/Survey</b>		<b>81</b>		<b>680</b>		<b>0</b>		<b>45</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>75</b>		<b>0</b>		<b>1762</b>
30-Oct	PHFB	20	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	25	61	0	0	112
30-Oct	SWFB	0	0	526	973	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1500
30-Oct	PH1	200	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	237
30-Oct	PH2	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
30-Oct	PH3	0	3	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	43
30-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Oct	SW2	40	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	61
30-Oct	SW3	62	0	0	0	0	0	1	53	0	0	0	0	0	0	0	0	0	0	0	0	116
<b>Avg/Survey</b>		<b>189</b>		<b>750</b>		<b>0</b>		<b>61</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>43</b>		<b>0</b>		<b>2084</b>

**JDA Bird Counts: 10/27/19 to 11/2/19**

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)	
31-Oct	PHFB	0	27	75	20	0	0	59	0	0	0	0	0	0	0	0	0	10	1	0	0	192
31-Oct	SWFB	0	0	263	480	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	743
31-Oct	PH1	63	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78
31-Oct	PH2	10	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
31-Oct	PH3	8	75	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	133
31-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Oct	SW3	0	0	0	0	0	0	18	20	0	0	0	0	0	0	0	0	0	0	0	0	38
Avg/Survey		112		419		0		74		0		0		0		0		6		0		1219
1-Nov	PHFB	10	0	0	10	0	0	32	0	0	0	0	0	0	0	0	0	32	10	0	0	94
1-Nov	SWFB	615	0	0	712	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1328
1-Nov	PH1	30	102	30	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	172
1-Nov	PH2	25	10	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
1-Nov	PH3	0	0	0	0	0	0	30	35	0	0	0	0	0	0	0	0	0	0	0	0	65
1-Nov	SW1	0	2	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	17
1-Nov	SW2	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
1-Nov	SW3	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Avg/Survey		397		391		5		69		0		0		0		0		21		0		1766
2-Nov	PHFB	0	0	8	27	0	0	0	6	0	0	0	0	0	0	0	0	23	0	0	0	64
2-Nov	SWFB	0	0	537	776	0	0	25	1	0	0	0	0	0	0	0	0	0	0	0	0	1339
2-Nov	PH1	244	120	0	22	8	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	414
2-Nov	PH2	48	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
2-Nov	PH3	23	0	0	0	0	0	9	25	0	0	0	0	0	0	0	0	0	0	0	0	57
2-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Nov	SW3	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	18
Avg/Survey		223		685		14		42		0		0		0		0		12		0		1950
<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>		<b>3330</b>		<b>7735</b>		<b>54</b>		<b>598</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>530</b>		<b>33</b>		<b>12280</b>
<b>Avg/Survey</b>		<b>238</b>		<b>553</b>		<b>4</b>		<b>43</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>38</b>		<b>2</b>		<b>877</b>



John Day Dam  
Avian Zones

