

FISHWAY STATUS REPORT

Date: 11/9/2019
Inspection Period: 11/3/2019 thru 11/9/2019

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: 14	Temperature: 52 F
				Secchi: 6.0 Ft.
NORTH FISHWAY			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	1	1.0' - 2.0'	AVG 1.5	OOC at 0.8' on 11/6 AM due to possible error by TW sensor (failing ?) TR'ed
SOUTH FISHWAY			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 1.6	
Entrance weir NE1	0	depth (≥ 8')	AVG 9.3	
Entrance weir NE2	0	depth (≥ 8')	AVG 9.8	
JUVENILE PASSAGE				
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 Some floating debris accumulating in front of MU2 and in its slots. TR'ed.	
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 until 11/30.	
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 11/26.

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. Camera is being fixed by JD Maintenance.

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

JD North Entrance OOC at 0.8' depth on 11/6 AM due possibly to TW sensor error which could be slowly failing. TR'ed to be investigated by JD Maintenance.

MU1 dewatered for its 5 Year on 11/5. JD Fisheries inspected its Scroll Case (no fish) and Draft Tube (10 mid-size cats bagged and released into TW in excellent condition.)

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:

A moderate amount of floating debris has accumulated at intake to MU2 and in its slots by 11/7. A request to remove it has been sent to JD 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.

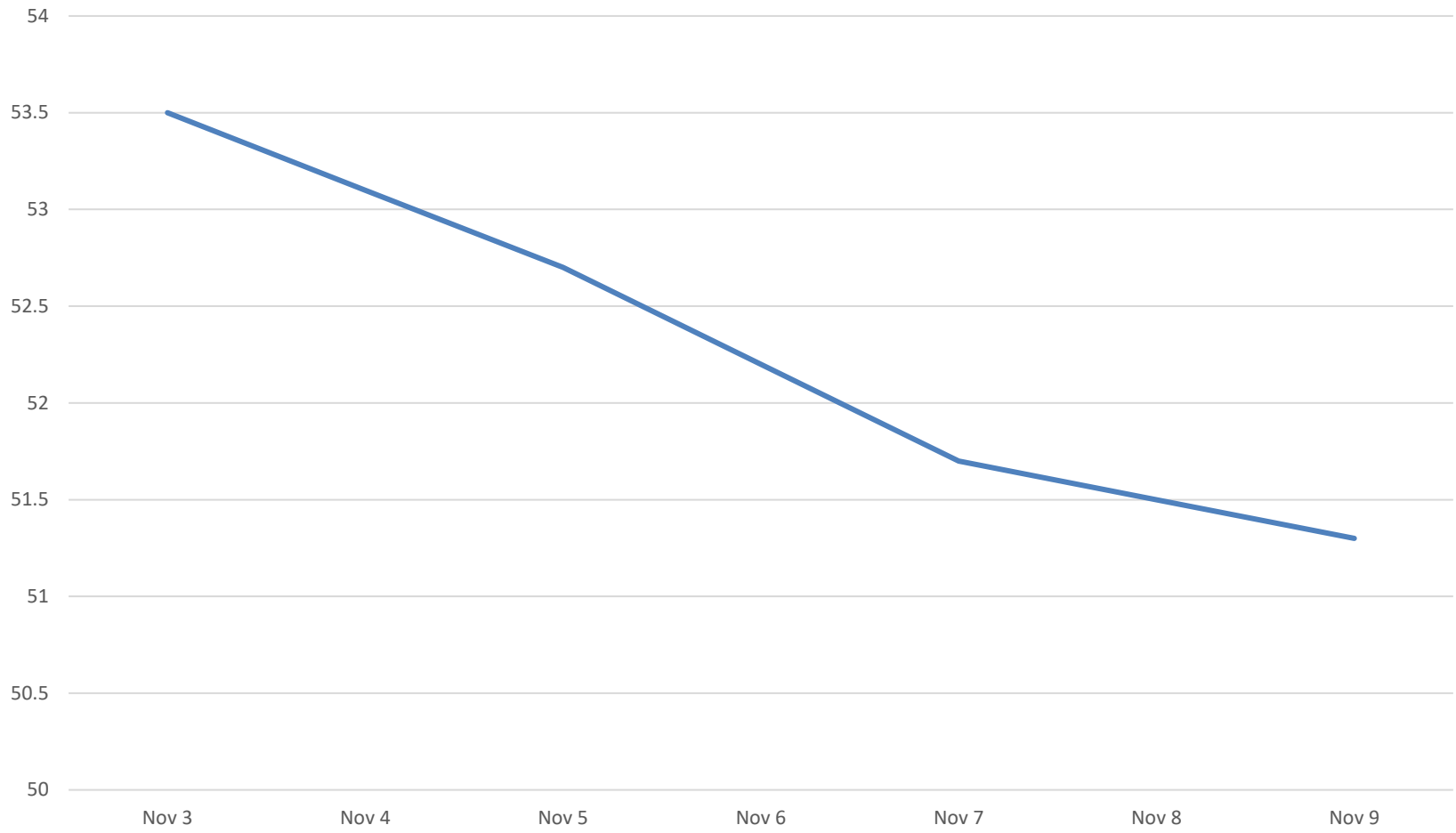
Washington F &W NPM dam angling ended with the season total of 1,835 fish in mid-September.

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 11/3/19 - 11/9/19



JDA Collection Channel Velocity

Date	<i>6-Nov-19</i>
By:	<i>MDL</i>

Bay(s)	Time	Sec.	Velocity (f/s)
<i>0-2</i>	<i>1:11</i>	<i>71</i>	<i>2.54</i>
<i>2 - 4</i>	<i>2:23</i>	<i>143</i>	<i>2.50</i>
<i>4 - 6</i>	<i>3:33</i>	<i>213</i>	<i>2.57</i>
<i>6 - 8</i>	<i>4:42</i>	<i>282</i>	<i>2.61</i>
<i>8 - 10</i>	<i>5:51</i>	<i>351</i>	<i>2.61</i>
<i>10 - 12</i>	<i>6:58</i>	<i>418</i>	<i>2.69</i>
<i>12 - 14</i>	<i>8:15</i>	<i>495</i>	<i>2.34</i>
<i>14 - 16</i>	<i>9:25</i>	<i>565</i>	<i>2.57</i>
<i>16 - 18</i>	<i>10:32</i>	<i>632</i>	<i>2.69</i>
			2.57

Tail Water	Level	159.9
Turbines 1 & 2	RPM	68

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

John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	54	6.0	NA
Mon	53	6.0	NA
Tue	53	6.0	NA
Wed	52	6.0	NA
Thur	52	6.0	NA
Fri	52	6.0	NA
Sat	51	6.0	NA
AVG:	52.4	AVG: 6.0	AVG/Sample #DIV/0!
			MAX 0
			MIN 0

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	9.3	9.9	1.1	8.5	1.6	4.6	1.3
Sun	8.8	9.4	1.4	8.0	1.6	4.6	1.5
Mon	10.6	10.0	1.3	8.0	1.7	4.6	1.6
Mon	9.0	9.5	1.5	8.1	1.7	4.6	1.5
Tues	9.4	10.0	1.3	8.0	1.3	4.6	1.8
Tues	9.4	10.0	1.3	8.0	1.3	4.6	1.8
Wed	9.5	9.9	1.4	8.0	0.8	4.6	1.7
Wed	10.2	10.8	1.4	8.0	1.4	4.5	1.5
Thur	9.4	10.0	1.4	8.0	1.5	4.6	1.4
Thur	8.3	8.9	1.6	8.0	1.6	4.6	1.6
Fri	9.6	10.1	1.4	8.0	1.5	4.7	1.6
Fri	9.0	9.5	1.4	8.0	1.6	4.6	1.6
Sat	9.2	9.8	1.3	8.1	1.4	4.6	1.6
Sat	9.1	9.7	1.4	8.1	1.4	4.6	1.6
AVG:	9.3	9.8	1.4	8.1	1.5	4.6	1.6

JDA Bird Counts: 11/3/19 to 11/9/19

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)	
3-Nov	PHFB	5	0	0	100	0	1	28	40	0	0	0	0	0	0	0	0	25	1	0	0	200
3-Nov	SWFB	0	0	910	916	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1826
3-Nov	PH1	125	130	15	20	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302
3-Nov	PH2	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
3-Nov	PH3	0	0	0	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	0	0	50
3-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Nov	SW2	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
3-Nov	SW3	0	0	0	0	0	0	25	2	0	0	0	0	0	0	0	0	0	0	0	0	27
Avg/Survey		145		981		7		78		0		0		0		0		13		0		2445
4-Nov	PHFB	0	0	0	200	0	0	35	40	0	0	0	0	0	0	0	0	25	0	0	0	300
4-Nov	SWFB	0	0	810	876	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1688
4-Nov	PH1	102	200	0	20	5	10	0	0	0	0	0	0	0	0	0	0	1	5	0	0	343
4-Nov	PH2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
4-Nov	PH3	20	0	0	0	0	0	30	20	0	0	0	0	0	0	0	0	0	0	0	0	70
4-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Nov	SW2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
4-Nov	SW3	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Avg/Survey		166		953		8		71		0		0		0		0		16		0		2426
5-Nov	PHFB	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	60	0	0	0	85
5-Nov	SWFB	0	0	810	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	812
5-Nov	PH1	50	0	12	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
5-Nov	PH2	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
5-Nov	PH3	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	40
5-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Nov	SW2	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
5-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		40		411		1		41		0		0		0		0		30		0		1046
6-Nov	PHFB	0	0	0	0	0	2	0	10	0	0	0	0	0	0	0	0	68	73	0	0	153
6-Nov	SWFB	0	0	818	797	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1615
6-Nov	PH1	0	22	0	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
6-Nov	PH2	22	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
6-Nov	PH3	2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
6-Nov	SW1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6-Nov	SW2	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27
6-Nov	SW3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Avg/Survey		40		808		7		19		0		0		0		0		71		0		1887

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		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)	
7-Nov	PHFB	0	0	178	0	0	0	24	27	0	0	0	0	0	0	0	0	43	17	0	0	289
7-Nov	SWFB	0	0	334	865	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1199
7-Nov	PH1	173	107	0	0	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	293
7-Nov	PH2	105	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121
7-Nov	PH3	26	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
7-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Nov	SW2	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17
7-Nov	SW3	0	0	0	0	0	0	12	5	0	0	0	0	0	0	0	0	0	0	0	0	17
Avg/Survey		220		689		7		43		0		0		0		0		30		0		1974
8-Nov	PHFB	0	0	5	0	0	0	43	0	0	0	0	0	0	0	0	0	31	22	0	0	101
8-Nov	SWFB	0	0	834	818	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1652
8-Nov	PH1	4	117	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134
8-Nov	PH2	61	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100
8-Nov	PH3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8-Nov	SW1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8-Nov	SW2	0	0	0	0	0	0	23	38	0	0	0	0	0	0	0	0	0	0	0	0	61
8-Nov	SW3	0	2	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	26
Avg/Survey		113		830		7		64		0		0		0		0		27		0		2080
9-Nov	PHFB	0	0	26	11	0	0	28	11	0	0	0	0	0	0	0	0	17	19	0	0	112
9-Nov	SWFB	0	0	983	873	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1856
9-Nov	PH1	0	11	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
9-Nov	PH2	33	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
9-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Nov	SW2	0	0	0	0	0	0	17	27	0	0	0	0	0	0	0	0	0	0	0	0	44
9-Nov	SW3	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Avg/Survey		26		956		0		51		0		0		0		0		18		0		2099
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		1498		11251		71		730		0		0		0		0		407		0		13957
Avg/Survey		107		804		5		52		0		0		0		0		29		0		997

John Day Dam
Avian Zones

