


FISHWAY STATUS REPORT

Date: 11/26/2016
Inspection Period: 11/20/2016 thru 11/26/2016



**US Army Corps
of Engineers**
Portland District

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 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: 54 F
	Out of Criteria	Limit		Secchi: 6.0 Ft.
NORTH FISHWAY			All 6 AWS pumps available in spite of harmless/temporary SKF alarms- see Maint. Section	
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 with two AWS turbines; FOGs # 18 & 19 continue closed	
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 1.5	
Entrance weir SE1	0	depth (≥ 8')	AVG 8.3	
Collection channel velocity	0	1.5 - 4 fps	AVG 0.00	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.5	
Entrance weir NE1	0	depth (≥ 8')	AVG 8.5	
Entrance weir NE2	0	depth (≥ 8')	AVG 8.5	
JUVENILE PASSAGE			In service with STSs installed since 4/1	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	November's STS camera inspection scheduled for the week of 11/21.	
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 11/28; light river debris loads	
Vert barrier screen drawdown	0	<1.5', wkly		
Spill volume	0	N/A	Bay 2 continues open 1.6 Kcfs for JD North's fish attraction, daylight hours.	
Spill pattern	0	per FPP		
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

SMOLT MONITORING FACILITY

Operation:

SMF continues in bypass for the full flow PIT tags detections until 28 November

Maintenance:

No maintenance issues to report. PDS screen cleaners have been working well.

SMF SCADA update/mods' investigation by JD Electrical underway. The SCADA "As Builts" by JD Electrical starting soon.

Research:

None

Fallbacks: AVG: MAX: 0 MIN: 0

Birds :

see the Avian Numbers tab. A wide array of aquatic birds feeding on the abundant juvenile shad.

15 Navlock (# 43 & 58 broke the week of 10/17) 6 Spillway, 6 Tower-to-Tower, 1 PH lines are missing out of 125 grid's total.

PDT will reinstall up to 15 critical, missing lines before May 2017; JD Fisheries believes that this will be sufficient for the Avian Grid to remain effective.

All missing lines will be reinstalled in Phase 2, in the fall of 2017.

Operations:

MU 3 OOS due to failed STS since 11/10. Since JD STS crane is failed/unavailable as well, the STS can't be removed and MU3 will remain in the forced OOS status until the crane is fixed (see JD STS crane info below.)

SMF in bypass at Switch Gate for the full flow PIT tag detections since 15 September.

JD North fishway has been meeting all FPP criteria since 1/5/16.

JD South Fishway in service with two out of three AWS turbines; FOGs 18 & 19 continue closed due to insufficient AWS.

MU Gatewell Drawdowns: weekly or more frequently as necessary.

Maintenance:

JD North Fishway AWS pumps experience frequent but harmless SKF alarms. This is an assessment by Mr. Hicks, JD Mechanical Supervisor:

"My belief is this type of system is failing on a regular basis due to the design of the SKF, when filling the reservoir air is being introduced to the system because the grease is pushed into the bottom of the reservoir. This causes an air pocket that will not automatically bleed out of the system, causing the alarm. Our normal fix is to purge the grease through the system. A permanent fix would be to be able to add grease to the storage reservoir from the top instead of the bottom." The issue is pending until resolved.

JD South Fishway AWS turbine 1 OOS long term due to failed pump's lower bearing. A possible, temporary "Band-Aid" repair by JD Mechanical this winter but need additional \$ 50K in special funding/ UFR.

JD STS crane continues in the failed status since late October. Its temporary/ emergency repair contract for \$ 200 K was awarded on 11/9 with a target completion of 12/21 through 12/28. The crane is old/wore out and its electronic controls are in a bad need of major overhaul at estimated cost of \$ 1.5 million.

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

Research:

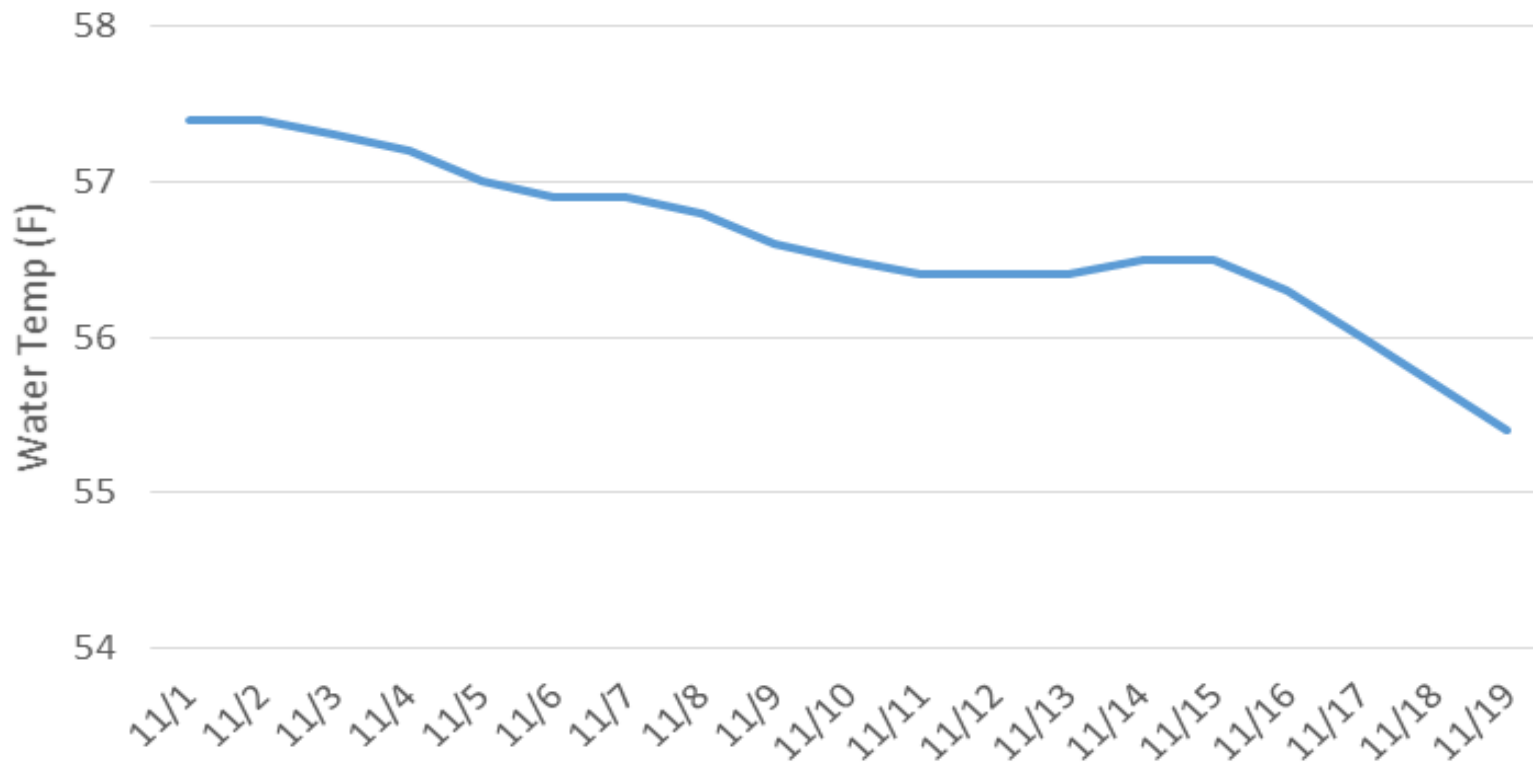
Adult PIT antennas PDT continues on the contract award for this winter's installation at both JD Fishways.

Kevin Moynahan

OPM John Day/Willow Creek Project

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E-Signed by MOYNAHAN, KEVIN, PATRICK, 1393959157
VERIFY authenticity with ApproveIt

Average Daily Tailwater Temperatures (F) JDA



JDA Collection Channel Velocity

Date	<i>17-Nov-16</i>
By:	<i>MDL</i>

Bay(s)	Time	Sec.	Velocity (f/s)
<i>0-2</i>	<i>0:55</i>	<i>55</i>	<i>3.27</i>
<i>2 - 4</i>	<i>1:41</i>	<i>101</i>	<i>3.91</i>
<i>4 - 6</i>	<i>2:30</i>	<i>150</i>	<i>3.67</i>
<i>6 - 8</i>	<i>3:19</i>	<i>199</i>	<i>3.67</i>
<i>8 - 10</i>	<i>4:09</i>	<i>249</i>	<i>3.60</i>
<i>10 - 12</i>	<i>4:54</i>	<i>294</i>	<i>4.00</i>
<i>12 - 14</i>	<i>5:45</i>	<i>345</i>	<i>3.53</i>
<i>14 - 16</i>	<i>6:36</i>	<i>396</i>	<i>3.53</i>
<i>16 - 18</i>	<i>7:26</i>	<i>446</i>	<i>3.60</i>
			3.64

TW	160.6
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#1 RPM	OOS
#2 RPM	60
#3 RPM	60

JDA Bird Counts: 11/20/16 to 11/26/16

F(1): Forage AM survey F(2): Forage PM Survey 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)	
20-Nov	PHFB	0	0	145	685	0	0	3	0	0	0	0	0	0	0	0	0	0	0	9	0	842
20-Nov	SWFB	0	0	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	173
20-Nov	PH1	19	69	0	0	20	19	0	0	0	0	0	0	0	0	0	0	7	0	0	0	134
20-Nov	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Nov	SW2	0	0	0	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	0	78
20-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		44	500	20	41	0	0	0	0	0	0	0	5	5			1227					
21-Nov	PHFB	0	0	51	252	0	0	15	0	0	0	0	0	0	0	0	0	0	0	12	12	342
21-Nov	SWFB	0	0	257	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	427
21-Nov	PH1	34	17	0	0	27	16	0	0	0	0	0	0	1	0	0	0	5	4	0	0	104
21-Nov	PH2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
21-Nov	PH3	0	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32
21-Nov	SW1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
21-Nov	SW2	0	0	0	0	0	0	17	39	0	0	0	0	0	0	0	0	0	0	0	0	56
21-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		28	365	23	52	0	0	1	0	5	13			967								
22-Nov	PHFB	0	0	19	49	0	0	15	27	0	0	0	0	0	0	0	0	0	0	5	8	123
22-Nov	SWFB	0	0	221	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	412
22-Nov	PH1	17	8	0	0	13	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
22-Nov	PH2	4	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
22-Nov	PH3	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	26
22-Nov	SW1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22-Nov	SW2	0	0	0	0	0	0	21	17	0	0	0	0	0	0	0	0	0	0	0	0	38
22-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		23	240	12	54	0	0	0	0	0	0	0	0	7			669					
23-Nov	PHFB	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	9	8			23
23-Nov	SWFB	0	0	244	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	463
23-Nov	PH1	18	18	0	0	11	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
23-Nov	PH2	5	4	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
23-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Nov	SW1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
23-Nov	SW2	0	0	0	0	0	0	42	54	0	0	0	0	0	0	0	0	0	0	0	0	96
23-Nov	SW3	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Avg/Survey		23	232	11	59	0	0	0	0	0	0	0	0	9			665					

JDA Bird Counts: 11/20/16 to 11/26/16

F(1): Forage AM survey F(2): Forage PM Survey 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)	
24-Nov	PHFB	0	0	20	20	0	0	17	0	0	0	0	0	0	0	0	0	0	0	11	9	77
24-Nov	SWFB	0	0	261	238	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	499
24-Nov	PH1	25	15	0	0	11	8	0	0	0	0	0	0	0	0	0	0	9	8	0	0	76
24-Nov	PH2	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
24-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Nov	SW1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
24-Nov	SW2	0	0	0	0	0	0	12	61	0	0	0	0	0	0	0	0	0	0	0	0	73
24-Nov	SW3	0	0	0	0	0	0	44	15	0	0	0	0	0	0	0	0	0	0	0	0	59
Avg/Survey		24		270		10		75		0		0		0		0		9		10		792
25-Nov	PHFB	0	0	0	16	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	38
25-Nov	SWFB	0	0	198	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	414
25-Nov	PH1	37	24	0	0	24	13	0	0	0	0	0	0	0	0	0	0	0	11	0	0	109
25-Nov	PH2	3	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
25-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Nov	SW2	0	0	0	0	0	0	59	53	0	0	0	0	0	0	0	0	0	0	0	0	112
25-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		34		215		20		76		0		0		0		0		6		0		699
26-Nov	PHFB	0	0	15	24	0	0	18	0	0	0	0	0	0	0	0	0	0	0	9	0	66
26-Nov	SWFB	0	0	218	251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	469
26-Nov	PH1	11	17	0	0	18	12	0	0	0	0	0	0	0	0	0	0	8	0	0	0	66
26-Nov	PH2	4	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
26-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Nov	SW1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
26-Nov	SW2	0	0	0	0	0	0	48	34	0	0	0	0	0	0	0	0	0	0	0	0	82
26-Nov	SW3	0	0	0	0	0	0	15	12	0	0	0	0	0	0	0	0	0	0	0	0	27
Avg/Survey		17		254		16		66		0		0		0		0		4		5		721
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		381		4149		220		841		0		0		1		0		55		93		5740
Avg/Survey		27		296		16		60		0		0		0		0		4		7		410

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	56	6.0	
Mon	55	6.0	
Tue	54	6.0	
Wed	54	6.0	
Thur	53	6.0	
Fri	53	6.0	
Sat	53	6.0	
AVG:	54	6.0	AVG
			0
			MAX
			0
			MIN

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	9.2	9.2	1.4	8.2	1.5	4.6	1.3
Sun	9.7	9.7	1.3	8.3	1.4	4.6	1.4
Mon	8.0	8.0	1.6	8.6	1.4	4.6	1.4
Mon	8.2	8.2	1.5	8.0	1.5	4.6	1.5
Tues	8.4	8.4	1.5	8.5	1.5	4.9	1.4
Tues	9.1	9.1	1.2	8.2	1.7	4.6	1.3
Wed	8.5	8.5	1.4	8.3	1.5	4.6	1.5
Wed	8.2	8.2	1.5	8.1	1.4	4.6	1.6
Thur	8.0	8.0	1.5	8.4	1.6	4.6	1.2
Thur	8.0	8.0	1.5	8.0	1.6	4.6	1.7
Fri	8.5	8.5	1.6	8.1	1.5	4.5	1.4
Fri	8.0	8.0	1.5	8.1	1.7	4.6	1.5
Sat	8.5	8.5	1.5	8.9	1.4	4.6	1.5
Sat	8.2	8.2	1.4	8.1	1.5	4.5	1.7
AVG:	8.5	8.5	1.5	8.3	1.5	4.6	1.5