


FISHWAY STATUS REPORT

Date: 12/17/2016
Inspection Period: 12/11/2016 thru 12/17/2016



**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 once per day during fish season, Dec. 1 - Feb. 29.
Frequent monitoring of the PLC displays in SMF Fisheries Office as necessary.

John Day Dam	Inspections	Criteria	Total Number of Inspections:	7	Temperature:	45 F
	Out of Criteria	Limit	Secchi: 6.0 Ft.			
NORTH FISHWAY	oos		OOS for annual maintenance since 12/2/16. RTS - second half of January 2017.			
Exit differential	oos	≤ 0.5'				
Exit Control weirs	oos	High setting	High setting is normal for JDN			
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!		
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	1.4		
Entrance weir SE1	0	depth (≥ 8')	AVG	8.3		
Collection channel velocity	0	1.5 - 4 fps	AVG	3.64		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.5		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.7		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.7		
JUVENILE PASSAGE			In service with STSs installed since 4/1			
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG	4.5		
Submersible traveling screens	0	visual inspect	MU 3, 4 & 9 OOS because of failed STSs which can't be removed due to failed STS Crane			
Turbine trashrack drawdown	0	<1.5', wkly	light debris loads			
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	N/A				
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

SMOLT MONITORING FACILITY

Operation:

SMF OOS for winter maintenance. RTS in late March with first 24 hrs sampling on 1 April 2017.

Maintenance:

JBS expansion joint immediately downstream of Tainter Gate was found with its one side, 1/2 metal cover peeled of the wall and dangerously sticking into flow by 2 feet during SMF dewatering on 11/28. JD Structural removed the plate and JBS returned quickly to service the same day. Appears to be a recent failure. The joint will be repaired during winter outage in February/March 2017 and possibly redesigned the following winter, 2018 to increase its long term durability SMF winterization by JD Fisheries underway.

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, 4 & 9 OOS due to failed STSs. Since JD STS crane is failed/unavailable as well, the STSs can't be removed and MUs 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 OOS since 12/2. Upper dewatered o 12/5: Ladder was flushed 4 X after a number of mid and large sturgeon were observed in its control section. It worked well as most of the fish were moved by flow into the lower fishway/tailwater with only a handful requiring physical pushing by the fisheries staff, in the final section. Only one adult steelhead was bagged and released into the river in excellent condition along with a few adult shad.

Lower ladder/entrance was dewatered on 12/7: 7 a. steelhead, 7 a. lamprey, 1 sturgeon 4-5' and 41 a. shad were bagged and released into the river in excellent condition. Additional 15 lamprey were salvaged from the entrance area on 12/12 and released into forebay in excellent condition.

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 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' .

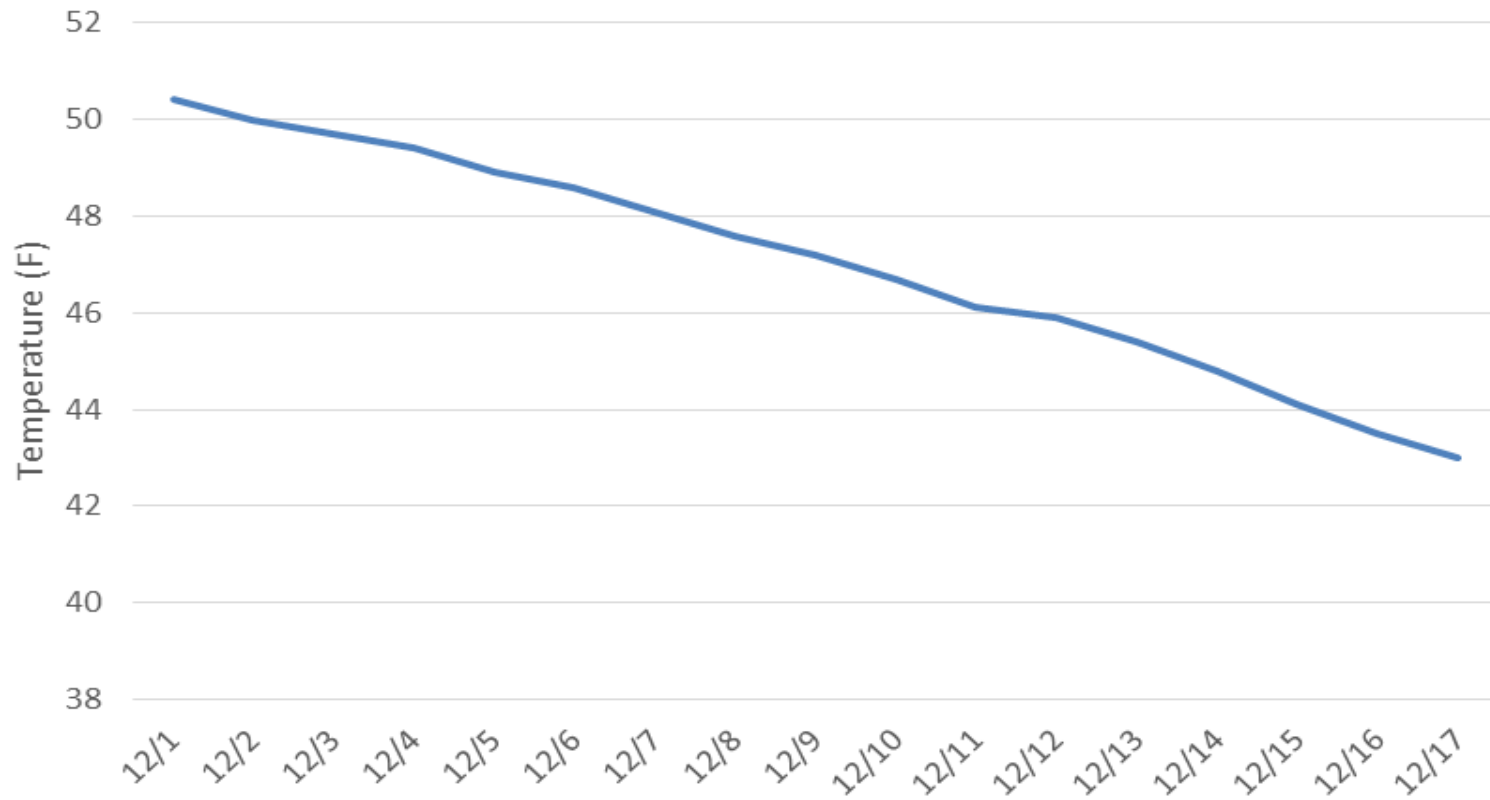
Research:

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

Water Temperature at 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: 12/11/16 to 12/17/16

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)		
11-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Dec	SW3	0	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	0	0	0	0	0	0	0	0	0	0	
12-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SWFB	0	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	PH1	11	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	PH2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SW2	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		7	41	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	0	
13-Dec	PHFB	0	0	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SWFB	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
13-Dec	PH1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0
13-Dec	PH2	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW2	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Dec	SW3	0	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	2	18	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	187	0	
14-Dec	PHFB	0	0	11	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0
14-Dec	SWFB	0	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	PH1	8	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
14-Dec	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	SW2	0	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		5	57	2	32	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	201	0	

JDA Bird Counts: 12/11/16 to 12/17/16

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)					
15-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Dec	PH1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
15-Dec	PH2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
15-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Dec	SW1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
15-Dec	SW2	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
15-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		7	0	0	0	5	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	
16-Dec	PHFB	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	8
16-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	PH1	6	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
16-Dec	PH2	2	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
16-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		4	0	0	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	32	
17-Dec	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	SWFB	0	0	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
17-Dec	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
17-Dec	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Dec	SW1	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
17-Dec	SW2	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
17-Dec	SW3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Avg/Survey		0	32	0	0	7	8	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	98	
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total				
		F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	
Weekly Total		47	395	53	143	0	0	0	0	0	0	0	0	0	0	15	17	0	0	15	17	0	0	15	17	670
Avg/Survey		3	28	4	10	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1	48

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	46	6.0	
Mon	46	6.0	
Tue	45	6.0	
Wed	45	6.0	
Thur	44	6.0	
Fri	44	6.0	
Sat	43	6.0	
AVG:	45	6.0	AVG
			0
			MAX
			0
			MIN

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.7	8.7	1.5	8.2	oos	4.6	1.5
Sun							
Mon	8.6	8.6	1.4	8.2	oos	4.6	1.4
Mon							
Tues	8.0	8.0	1.5	8.2	oos	4.5	1.6
Tues							
Wed	8.2	8.2	1.4	8.4	oos	4.5	1.6
Wed							
Thur	9.6	9.6	1.3	8.1	oos	4.5	1.4
Thur							
Fri	9.2	9.2	1.1	8.3	oos	4.5	1.4
Fri							
Sat	8.8	8.8	1.6	8.4	oos	4.5	1.4
Sat					oos		
AVG:	8.7	8.7	1.4	8.3	#DIV/0!	4.5	1.5