

FISHWAY STATUS REPORT

Date: 1/14/2017
 Inspection Period: 1/8/2017 thru 1/14/2017



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:	6	Temperature:	36 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
NORTH FISHWAY	00s		OOS for annual maintenance since 12/2/16. RTS is 1/18/17.			
Exit differential	00s	≤ 0.5'				
Exit Control weirs	00s	High setting	High setting is normal for JDN			
Count station differential	00s	≤ 0.3'				
Weir crest depth (DS gauge)	00s	1.0' ± 0.1'				
Entrance differential	00s	1.0' - 2.0'	AVG #DIV/0!			
SOUTH FISHWAY			In service with two AWS turbines; FOGs # 18 & 19 closed. Its dewatering is 1/23/17.			
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 9.1			
Collection channel velocity	0	1.5 - 4 fps	AVG 3.64			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.4			
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	3	4.0' - 5.0'	AVG 4.5 JBS Tainter Gate immobilized by ice since 1/12/17.			
Submersible traveling screens	0	visual inspect	MU 3,4,5,6 in emergency operation with one failed STS each per BPA coordination.			
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 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.

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:

JBS Tainter Gate immobilized by ice since 1/12/17. The resulting differential appears to be slightly OOC and approximately at 5.5' (criteria is 4.0-5.0'.)

It is impossible to free the gate before the ice thaws on its own. The JBS channel sensor is frozen as well so manual taping is necessary everyday.

Emergency operation of MU 3, 4, 5 & 9 which have one failed STS each started on 12/30 per BPA coordination. This is the last on/ first off emergency operation during the cold weather snaps when the power supply is critical. It will continue until the JD STS Crane is fixed and the failed STSs can be removed. See info about the JD STS Crane's failure below.

JD North Fishway OOS since 12/2. RTS in 18 January 2017.

JD South Fishway in service with two out of three AWS turbines; FOGs 18 & 19 continue closed due to insufficient AWS. It is scheduled for dewatering on 23 January 2017.

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 new target completion in late January 2017. 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' .

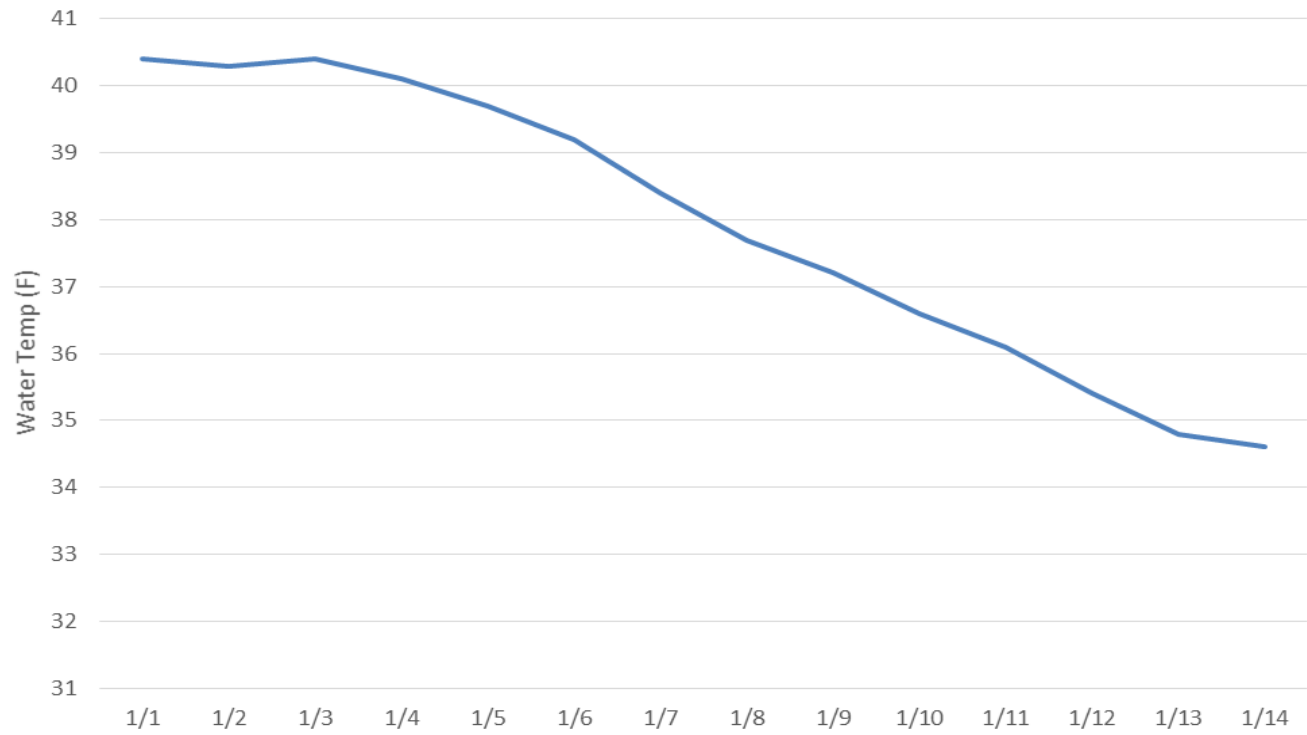
Research:

Adult PIT antennas installation at JD North underway. Expected completion by 1/13/17.

Kevin Moynahan
OPM John Day/Willow Creek Project

MOYNAHAN, KEVIN, PATRICK, 1393959157

JDA Water Temperature



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: 1/8/17 to 1/14/17

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)	
8-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	PH1	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Jan	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	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
9-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	PH1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
9-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Jan	SW3	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Avg/Survey		0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
10-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	PH1	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
10-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jan	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	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
11-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jan	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jan	SW1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
11-Jan	SW2	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16
11-Jan	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	3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21

JDA Bird Counts: 1/8/17 to 1/14/17

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)			
12-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jan	PH1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
12-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jan	PH3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jan	SW2	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
12-Jan	SW3	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		0	0	0	0	3	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
13-Jan	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jan	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jan	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jan	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jan	SW1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
13-Jan	SW2	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
13-Jan	SW3	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		0	0	0	0	4	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
14-Jan	PHFB	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
14-Jan	SWFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14-Jan	PH1	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
14-Jan	PH2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
14-Jan	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jan	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jan	SW2	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
14-Jan	SW3	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		0	0	1	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total		
		F	F	NF	NF	F	F	NF	NF	F	F	NF	NF	F	F	NF	NF	F	F	NF	NF			
Weekly Total		0	0	2	0	44	0	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149
Avg/Survey		0	0	0	0	3	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	38	6.0	
Mon	37	6.0	
Tue	37	6.0	
Wed	37	6.0	
Thur	36	6.0	
Fri	35	6.0	
Sat	35	6.0	
AVG:	36	AVG: 6.0	AVG
			MAX 0
			MIN 0

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.9	8.8	1.6	9.4	oos	4.5	1.0
Sun							
Mon	8.0	8.0	1.6	8.7	oos	4.5	1.1
Mon							
Tues	8.1	8.1	1.4	8.5	oos	4.6	1.6
Tues							
Wed	8.4	8.4	1.3	9.1	oos	4.5	1.5
Wed							
Thur	9.0	9.0	1.2	9.7	oos	oos	1.5
Thur							
Fri	9.0	9.0	1.3	9.2	oos	oos	1.5
Fri							
Sat	8.2	8.2	1.4	9.1	oos	oos	1.6
Sat							
AVG:	8.5	8.5	1.4	9.1	#DIV/0!	4.5	1.4