

# FISHWAY STATUS REPORT

Date: 11/5/2016  
 Inspection Period: 10/30/2016 thru 11/5/2016

## JOHN DAY DAM



US Army Corps  
 of Engineers  
 Portland District

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:	57 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
<b>NORTH FISHWAY</b>			In service; all 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	1.5		
<b>SOUTH FISHWAY</b>			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	3.60		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.5		
Entrance weir NE1	0	depth (≥ 8')	AVG	8.1		
Entrance weir NE2	0	depth (≥ 8')	AVG	8.2		
<b>JUVENILE PASSAGE</b>			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	STS camera insp. completed by 10/20. One bad STS at MU4 replaced with working spare.			
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 10/24; very 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 N ladder attraction water			
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

## SMOLT MONITORING FACILITY

### Operation:

2016 Sampling season ended on 9/15; 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. Needs As Builts completed ASAP (\$ 50K UFR..)

### Research:

None

**Fallbacks:**                      AVG:                      MAX:    0                      MIN:    0

### Birds :

see the Avian Numbers tab. No major avian presence/predation at JD since late August.

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:

SMF in bypass for 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 South Fishway AWS turbine 1 OOS long term due to failed pump's lower bearing. Possible temporary "Band-Aid" repair by JD Mechanical this winter but need additional \$ 70K in special funding/ UFR.

JD STS crane is in the failed status and its electrical controls require a serious overhaul. It has been the JD top priority for years but it has lacked funding so far.

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

### Research:

Adult Fish Counting by Normandeau Associates completed on 31 October 2016.

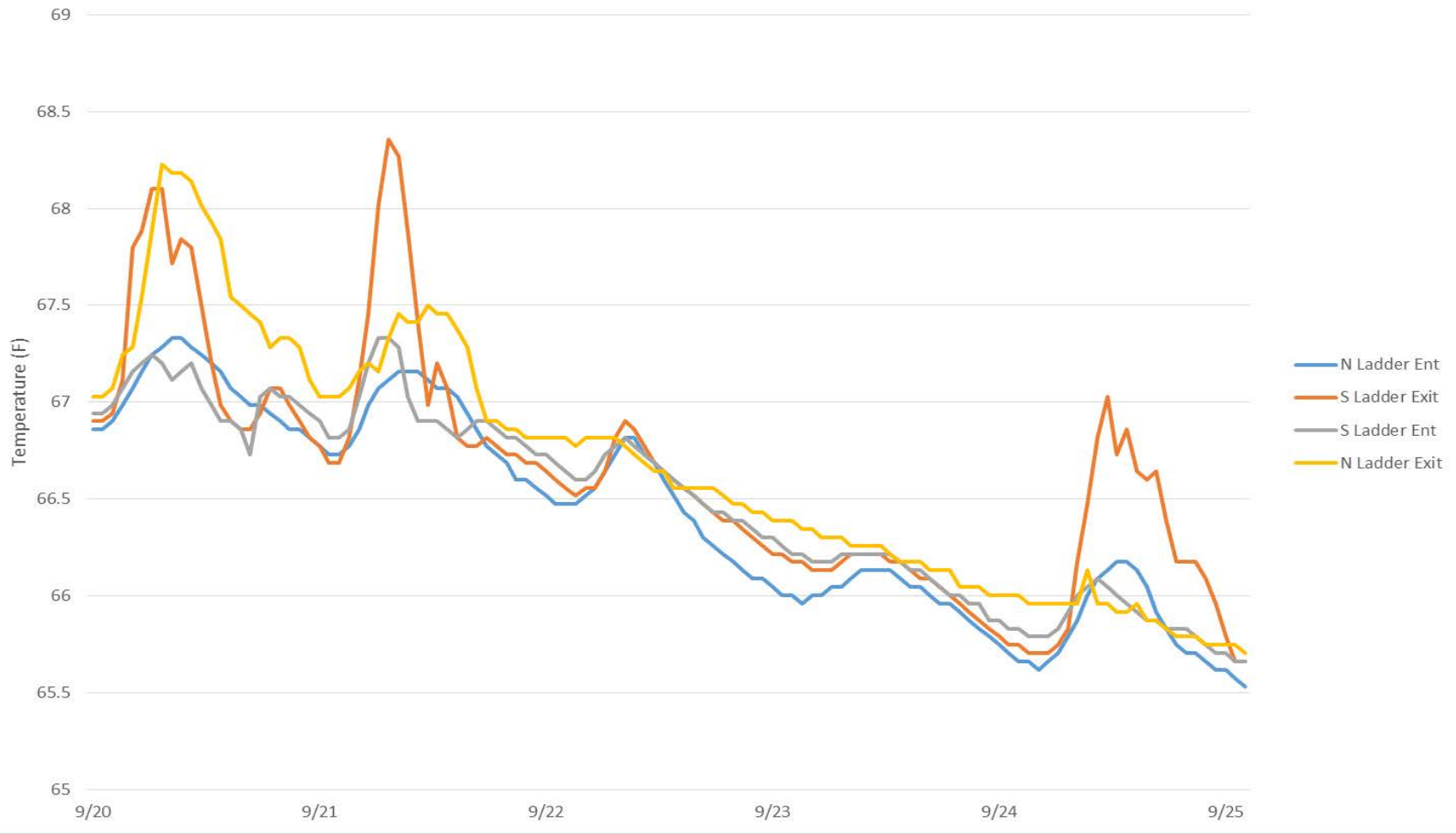
Adult PIT antennas PDT continues developing designs for this winter's installation at both JD Fishways.

**Kevin Moynahan**

**OPM John Day/Willow Creek Project**

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

John Day Dam Fishladder Temperatures (9/25/2016)



## JDA Collection Channel Velocity

Date	23/10
By:	pr

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	1:09	69	2.61
2 - 4	2:02	122	3.40
4 - 6	2:42	162	4.50
6 - 8	3:32	212	3.60
8 - 10	4:20	260	3.75
10 - 12	5:15	315	3.27
12 - 14	5:59	359	4.09
14 - 16	6:51	411	3.46
16 - 18	7:39	459	3.75
			<b>3.60</b>

TW	159.7
#2 RPM	60
#3 RPM	60

**JDA Bird Counts: 10/23/16 to 10/29/16**

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)	
23-Oct	PHFB	0	0	375	0	0	0	0	0	0	0	0	0	0	0	0	0	255	0	0	0	630
23-Oct	SWFB	0	0	283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	283
23-Oct	PH1	7	59	0	0	6	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91
23-Oct	PH2	15	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
23-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Oct	SW2	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	41
23-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		41		329		15		21		0		0		0		0		128		0		1065
24-Oct	PHFB	0	0	0	99	0	0	0	0	0	0	0	0	0	0	0	0	195	191	0	0	485
24-Oct	SWFB	0	0	357	411	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	0	837
24-Oct	PH1	3	49	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
24-Oct	PH2	7	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
24-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Oct	SW2	0	0	0	0	0	0	17	31	0	0	0	0	0	0	0	0	0	0	0	0	48
24-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		30		434		7		24		0		0		0		0		228		0		1443
25-Oct	PHFB	0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	0	105	0	0	0	200
25-Oct	SWFB	0	0	397	0	0	0	0	0	0	0	0	0	0	0	0	0	115	0	0	0	512
25-Oct	PH1	9	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
25-Oct	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Oct	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		5		246		4		0		0		0		0		0		110		0		728
26-Oct	PHFB	0	0	94	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	110	409
26-Oct	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0	119
26-Oct	PH1	0	3	0	0	6	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
26-Oct	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Oct	PH3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
26-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Oct	SW2	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
26-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		3		91		7		2		0		0		0		0		0		173		551

**JDA Bird Counts: 10/23/16 to 10/29/16**

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)	
27-Oct	PHFB	0	0	32	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	217	237	517
27-Oct	SWFB	0	0	89	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206
27-Oct	PH1	67	27	0	0	11	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112
27-Oct	PH2	34	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86
27-Oct	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27-Oct	SW1	0	0	0	0	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
27-Oct	SW2	0	0	0	0	0	13	11	0	0	0	0	0	0	0	0	0	0	0	0	0	24
27-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>91</b>		<b>135</b>		<b>23</b>		<b>6</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>227</b>	<b>961</b>	
28-Oct	PHFB	0	0	35	11	0	0	14	6	0	0	0	0	0	0	0	0	0	0	198	207	471
28-Oct	SWFB	0	0	41	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
28-Oct	PH1	6	33	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
28-Oct	PH2	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
28-Oct	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
28-Oct	SW1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
28-Oct	SW2	0	0	0	0	0	0	17	19	0	0	0	0	0	0	0	0	0	0	0	0	36
28-Oct	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>31</b>		<b>60</b>		<b>6</b>		<b>28</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>203</b>	<b>653</b>	
29-Oct	PHFB	0	0	0	0	0	0	28	16	0	0	0	0	0	0	0	0	0	0	6	65	115
29-Oct	SWFB	0	0	0	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148
29-Oct	PH1	18	3	0	0	12	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
29-Oct	PH2	8	20	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
29-Oct	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Oct	SW2	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	37
29-Oct	SW3	0	2	0	0	0	0	37	45	0	0	0	0	0	0	0	0	0	0	0	0	84
<b>Avg/Survey</b>		<b>26</b>		<b>74</b>		<b>16</b>		<b>82</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>36</b>	<b>464</b>	
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
<b>Weekly Total</b>		<b>449</b>		<b>2735</b>		<b>153</b>		<b>322</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>930</b>		<b>1276</b>	<b>5865</b>	
<b>Avg/Survey</b>		<b>32</b>		<b>195</b>		<b>11</b>		<b>23</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>66</b>		<b>91</b>	<b>419</b>	

John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	58	6.0	
Mon	58	6.0	
Tue	57	6.0	
Wed	57	6.0	
Thur	57	6.0	
Fri	57	6.0	
Sat	57	6.0	
<b>AVG:</b>	<b>57</b>	<b>6.0</b>	<b>AVG</b>
			<b>0</b>
			<b>MAX</b>
			<b>0</b>
			<b>MIN</b>

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.0	8.0	1.4	8.2	1.5	4.5	1.4
Sun	8.0	8.0	1.4	8.2	1.6	4.6	1.4
Mon	8.1	8.1	1.4	8.2	1.4	4.6	1.4
Mon	8.1	8.1	1.4	8.2	1.5	4.5	1.5
Tues	8.0	8.1	1.4	8.1	1.4	4.6	1.3
Tues	8.0	8.0	1.3	8.1	1.4	4.6	1.4
Wed	8.0	8.0	1.5	8.2	1.4	4.6	1.6
Wed	8.1	8.3	1.6	8.2	1.5	4.5	1.6
Thur	8.0	8.0	1.5	8.2	1.4	4.6	1.7
Thur	8.4	8.6	1.4	8.8	1.4	4.6	1.4
Fri	8.1	8.1	1.4	8.4	1.5	4.6	1.7
Fri	8.2	8.3	1.5	8.2	1.5	4.6	1.3
Sat	8.1	8.3	1.5	8.6	1.5	4.5	1.5
Sat	8.2	8.4	1.5	8.6	1.4	4.6	1.5
<b>AVG:</b>	<b>8.1</b>	<b>8.2</b>	<b>1.4</b>	<b>8.3</b>	<b>1.5</b>	<b>4.6</b>	<b>1.5</b>