

## FISHWAY STATUS REPORT

**Date:** 4/20/2019  
**Inspection Period:** 4/14/2019 thru 4/20/2019

## 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 passage season, Mar. 1 - Nov. 30.  
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: 49 F
				Secchi: 1.7 Ft.
<b>NORTH FISHWAY</b>				
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>	0		Turbine 1 & 3 oos. 1 turbine operation as of 1400 on 9 April.	
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'	Set to Shad setting to provide more flow to SE1	
South entrance differential	0	1.0' - 2.0'	AVG 1.5	
Entrance weir SE1	11	depth (≥ 8')	AVG 6.2	
Collection channel velocity	0	1.5 - 4 fps	AVG 2.54	
N. Entrance PH(Bay 19)differential	6	1.0' - 2.0'	AVG 2.1	
Entrance weir NE1	11	depth (≥ 8')	AVG 9.6	
Entrance weir NE2	5	depth (≥ 8')	AVG 7.9	
<b>JUVENILE PASSAGE</b>	0			
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect		
Turbine trashrack drawdown	0	<1.5', wkly	N/A	
Vert barrier screen drawdown	0	<1.5', wkly	N/A	
Spill volume	0	per FPP	Spill season started 10 April	
Spill pattern	0	per FPP	None	
Turbine Unit Priority	0	per FPP		
Turbine 1% Efficiency	0	per FPP		

## SMOLT MONITORING FACILITY

### Operation:

SMOLT MONITORING FACILITY began sampling on 3/13 at 1400. A broken pipe flange that supplies flume and rotating gate water was cracked preventing start up on 3/11.

### Maintenance:

SMF SCADA update by JD Electrical/ Portland District's engineers is underway but its completion is delayed by one year to February 2020. Due to complexity of electronic components and incomplete as-builts which are pending at this time.

### Research:

CRITFC genetic samples were collected by PSMFC.

## ADULT FISHWAYS & TW AVIAN GRID

### Birds:

Bird numbers have declined significantly due to low juvenile shad abundance in winter. See Avian Numbers tab for details.  
All 125 avian lines in place without any deficiencies.

### Operations:

1 Turbine operation on South fish ladder. On 9 April, fish turbine one was tagged oos with a broken anti ratchet gear.

Trash raking of units began on 3/21.

MU Gatewell Drawdown All MUs trashrack differentials are 1.5' or below according to twice a week inspections.

### Maintenance:

JD North AWS pump 2 returned to service on 3/27.

JD North AWS pumps frequent SKF alarms (auto greasing issues) continue and are cleared by JD Maintenance & Ops immediately. Planning for a long term fix underway.

JD South fish turbine's anti-ratchet gear was damaged beyond repair on 9 Apr. A spare is being assessed as a possible repair part.

JD North Fishway's LPS: Installation of the old pump assembly and electric controls will proceed at the end of April for start of trapping season.

JD South AWS turbine 3 is OOS, Part are to arrive on 26 April.

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

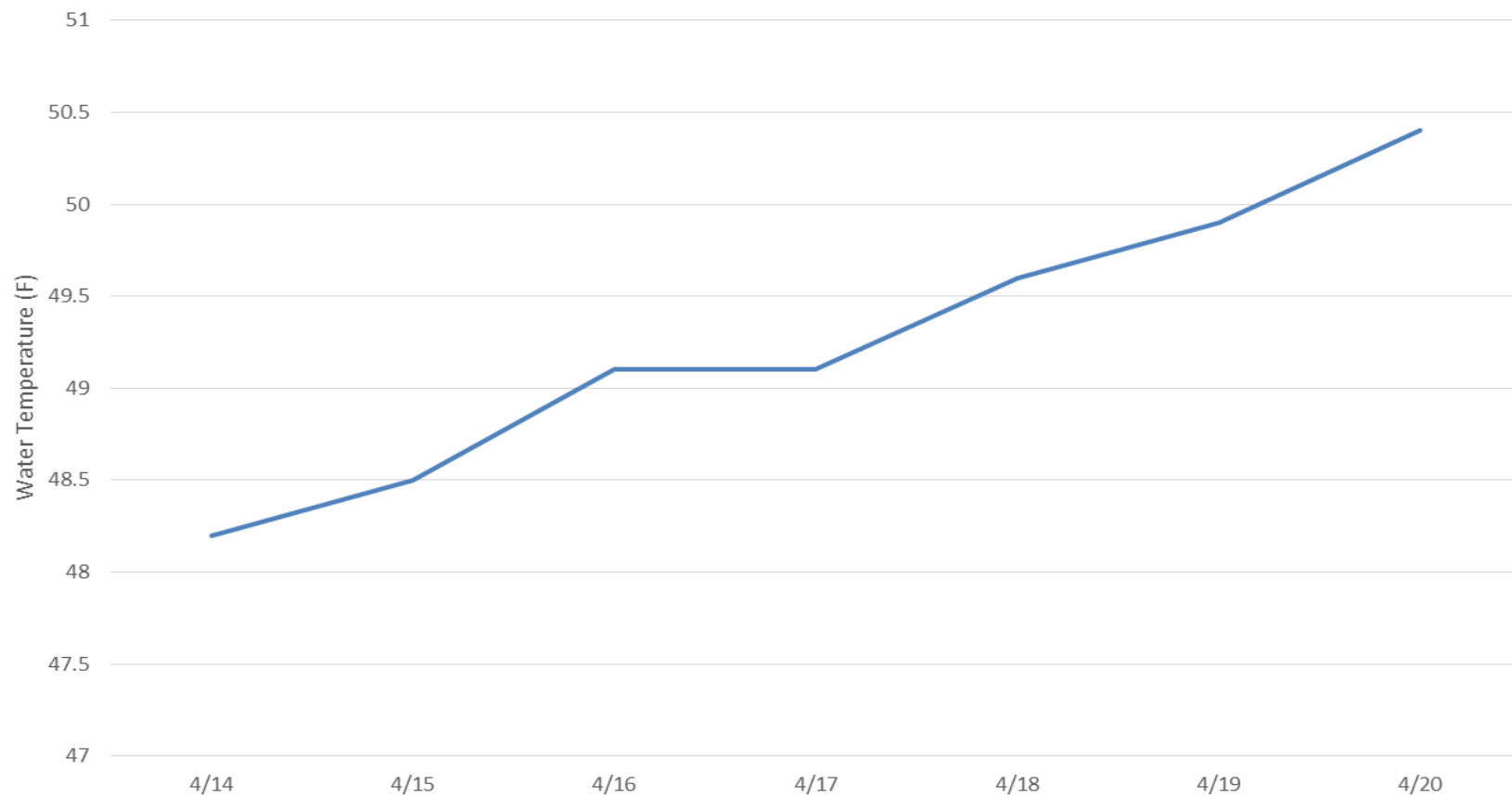
### Research:

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 Forebay Water Temperature (4/14/19 - 4/20/19)



## JDA Collection Channel Velocity

**Date** 14-Apr-19

**By:** MDL

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	2:54	174	1.03
2 - 4	4:57	297	1.46
4 - 6	7:22	442	1.24
6 - 8	9:51	591	1.21
8 - 10	12:01	721	1.38
10 - 12	14:12	852	1.37
12 - 14	16:35	995	1.26
14 - 16	18:41	1121	1.43
16 - 18	20:29	1229	1.67
			<b>1.34</b>

<b>Bay 19 TW:</b>	161.6	
<b>Turbine 2:</b>	68 RPM	Turbine #1, and #3 OOS

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

## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks	
Sun	48	2.0		Bypass
Mon	48	2.0	25	Sample
Tue	49	2.0		Bypass
Wed	49	1.5	33	Sample
Thur	49	1.5		Bypass
Fri	50	1.5	24	Sample
Sat	50	1.5		Bypass
<b>AVG:</b>	<b>49</b>	<b>AVG: 1.7</b>	<b>AVG/Sample 27</b>	
			<b>MAX 33</b>	
			<b>MIN 0</b>	

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	closed	8.3	1.2	5.9	1.5	4.6	1.6
Sun	closed	7.4	1.1	5.0	1.3	4.6	1.6
Mon	closed	7.4	1.2	5.0	1.5	4.6	1.8
Mon	closed	8.1	1.1	5.5	1.4	4.6	1.8
Tues	closed	8.2	1.5	5.6	1.6	4.5	1.9
Tues	closed	7.7	1.7	5.1	1.6	4.5	2.0
Wed	closed	8.4	1.4	6.6	1.3	4.5	2.3
Wed	closed	7.3	1.6	5.3	1.7	4.5	2.5
Thur	closed	8.6	1.2	6.5	1.5	4.5	2.0
Thur	9.4	8.0	1.9	8.1	1.6	4.6	2.3
Fri	9.6	8.2	1.8	8.6	1.6	4.6	2.3
Fri	9.7	8.3	1.7	8.9	1.4	4.6	2.7
Sat	closed	8.0	1.3	6.0	1.5	4.5	2.0
Sat	closed	7.1	1.6	5.0	1.7	4.6	2.3
<b>AVG:</b>	<b>9.6</b>	<b>7.9</b>	<b>1.5</b>	<b>6.2</b>	<b>1.5</b>	<b>4.6</b>	<b>2.1</b>



**JDA Bird Counts: 4/14/19 to 4/20/19**

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)	
14-Apr	PHFB	1	4	0	0	0	2	20	0	0	0	0	0	0	0	0	0	40	33	0	0	100
14-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	PH1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
14-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
14-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	SW3	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
<b>Avg/Survey</b>		<b>8</b>	<b>0</b>	<b>1</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>111</b>				
15-Apr	PHFB	0	5	1	0	0	5	18	0	0	0	0	0	0	0	0	0	55	2	0	0	86
15-Apr	SWFB	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
15-Apr	PH1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	PH3	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4
15-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	SW3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Avg/Survey</b>		<b>6</b>	<b>3</b>	<b>3</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>98</b>						
16-Apr	PHFB	0	0	0	0	24	1	0	0	0	0	0	0	0	0	0	0	30	34	0	0	89
16-Apr	SWFB	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	SW2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
16-Apr	SW3	1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
<b>Avg/Survey</b>		<b>9</b>	<b>2</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>0</b>	<b>110</b>						
17-Apr	PHFB	0	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	23	27	22	26	104
17-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	SW3	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
<b>Avg/Survey</b>		<b>16</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>24</b>	<b>135</b>						

**JDA Bird Counts: 4/14/19 to 4/20/19**

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)	
18-Apr	PHFB	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	31	20	30	20	106
18-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	PH1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
18-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		2		2		0		1		0		0		0		0		26		25		109
19-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	26	24	25	100
19-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	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		0		0		0		0		26		25		100
20-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	9	35	9	88
20-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW3	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Avg/Survey		6		0		0		0		0		0		0		0		22		22		100
<b>Totals</b>		<b>Gulls</b>				<b>Cormorant</b>				<b>Caspian tern</b>				<b>White Pelican</b>				<b>Grebe</b>				<b>Total</b>
		F		NF		F		NF		F		NF		F		NF		F		NF		
<b>Weekly Total</b>		92		14		32		43		0		0		1		0		390		191		763
<b>Avg/Survey</b>		7		1		2		3		0		0		0		0		28		14		55



John Day Dam  
Avian Zones

