FISHWAY STATUS REPORT

Date: 12/24/2017

Inspection Period: 12/18/2017 thru 12/24/2017

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: 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 1.4
Entrance weir NE1	0	depth (≥ 8′)	AVG 8.8
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.

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, the STSs can't be removed and MUs will remain in the forced OOS status until 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. RTS in the second half of January 2017.

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.

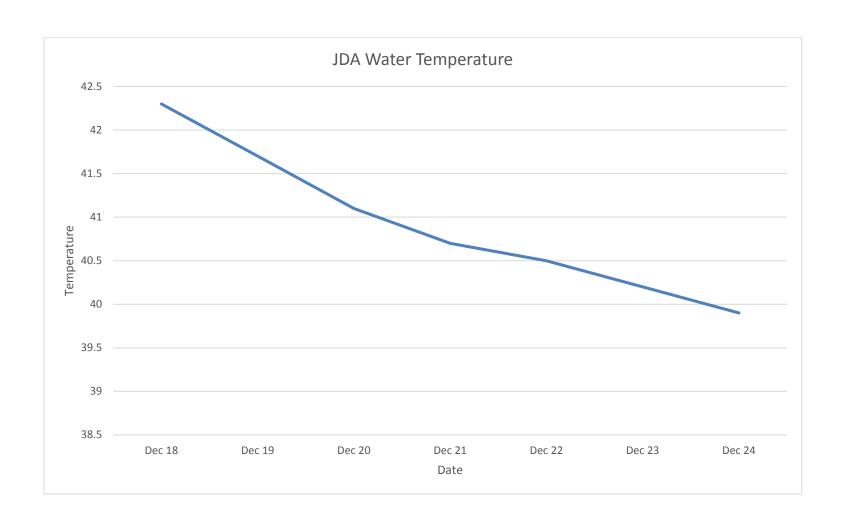
Calibration: All gauges/ sensors are within the criteria of 0.3'.

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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JDA Collection Channel Velocity

Date	17-Nov-16
By:	MDL

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

TW 160.6

#1 RPM	oos
#2 RPM	60
#3 RPM	60

JDA Bird Counts: <u>12/18/16</u> to <u>12/24/16</u>

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

Date Zone	0	Gulls		Corr	norant			Casp	ian ter	n	,	White	e Pelica	ın		G	rebe		Total
Date Zone	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)	iotai
18-Dec PHFB	0 0	0 0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
18-Dec SWFB	0 0	21 (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
18-Dec PH1	18 0	0 0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
18-Dec PH2	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec PH3	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Dec SW1	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7
18-Dec SW2	0 0	0 0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
18-Dec SW3	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey	9	11	6	1	3	3	()	()	(0	()	. (0		4	63
19-Dec PHFB	0 0	9 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	15
19-Dec SWFB	0 0	37 (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
19-Dec PH1	13 0	0 0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
19-Dec PH2	11 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
19-Dec PH3	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Dec SW1	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
19-Dec SW2	0 0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Dec SW3	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey	12	23	5		(((0	· ·	0	()	T	3	1	3	90
20-Dec PHFB	0 0	42 0		0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	52
20-Dec SWFB	0 0	8 0	_	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
20-Dec PH1	8 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
20-Dec PH2	0 0	0 0	Ť	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Dec PH3	2 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
20-Dec SW1	0 0	0 0		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20-Dec SW2	0 0	0 0		0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
20-Dec SW3	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey	5	25	2		1	5)	()	(0	()	(0		3	98
21-Dec PHFB	0 0	8 0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	9	0	23
21-Dec SWFB	0 0	113 (0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113
21-Dec PH1	4 0	1 (_	0	1	0	0	0	0	0	0	0	0	0	0	0	6	0	12
21-Dec PH2	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec PH3	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec SW1	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Dec SW2	0 0	0 0		0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5
21-Dec SW3	0 0	0 0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey	2	61	0		6	5	()		0	(0	()	(0		8	153

JDA Bird Counts: <u>12/18/16</u> to <u>12/24/16</u>

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

Date	Zone		G	Gulls			Corr	norant			Casp	ian ter	n	,	White	e Pelica	n		G	rebe		Total
Date	Zone	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)	iotai
22-Dec	PHFB	0	0	23	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	7	0	38
22-Dec	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	PH1	5	0	1	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	5	0	15
22-Dec	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
22-Dec	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
22-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Dec	SW2	0	0	1	0	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	48
22-Dec		0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg/Su	urvey		4	1	.3	- 2	2	2	8	(0	(0	()	(0	(0	(6	104
23-Dec	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23-Dec	SWFB	0	0	227	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	5	0	239
23-Dec	PH1	0	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	10
23-Dec	PH2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
23-Dec	PH3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
23-Dec	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Dec	SW2	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	37
23-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Su	urvey		3	1:	18	()	2	5	(0	(0	()	(0		0		3	296
24-Dec		0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
24-Dec		0	0	117	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	4	0	136
24-Dec	PH1	11	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
24-Dec	PH2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
24-Dec	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Dec	SW1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
24-Dec	SW2	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8
24-Dec	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Su	urvey		8	6	1	2	2	1	2		0)	()		0	(0		2	167

Totals	(Gulls	Cormorant		Casp	ian tern	White	e Pelican	G	Total	
Totals	F	NF	F	NF	F	NF	F	NF	F	NF	TOLAI
Weekly Total	84	621	31	176	0	0	0	0	5	54	971
Avg/Survey	6	44	2	13	0	0	0	0	0	4	69



John Day Weekly Averages

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

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.7	8.7	1.3	8.4	oos	4.4	1.5
Sun							
Mon	9.0	9.0	1.1	8.1	oos	4.5	1.2
Mon							
Tues	8.7	8.7	1.3	8.3	oos	4.6	1.5
Tues							
Wed	8.6	8.6	1.4	8.4	oos	4.6	1.6
Wed							
Thur	8.8	8.6	1.5	8.2	oos	4.6	1.2
Thur							
Fri	8.4	8.5	1.5	8.2	00S	4.5	1.5
Fri							
Sat	9.1	9.1	1.4	8.2	oos	4.6	1.4
Sat					oos		
A)/C:		0.7	4.4	0.3	#DD//C!	4.5	4.4
AVG:	8.8	8.7	1.4	8.3	#DIV/0!	4.5	1.4