

FISHWAY STATUS REPORT

Date: 11/19/2016
 Inspection Period: 11/13/2016 thru 11/19/2016



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 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:	56 F
	Out of Criteria	Limit			Secchi:	6.0 Ft.
NORTH FISHWAY			All 6 AWS pumps available in spite of harmless/temporary SKF alarms- see Maint. Section			
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		
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	1.5		
Entrance weir SE1	0	depth (≥ 8')	AVG	8.4		
Collection channel velocity	0	1.5 - 4 fps	AVG	0.00		
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG	1.4		
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	4.6		
Submersible traveling screens	0	visual inspect	November's STS camera inspection scheduled for the week of 11/21.			
Turbine trashrack drawdown	0	<1.5', wkly	Monthly raking scheduled for the week of 11/28; 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 JD North's fish attraction, daylight hours.			
Spill pattern	0	per FPP				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

SMOLT MONITORING FACILITY

Operation:

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. 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 OOS due to failed STS since 11/10. Since JD STS crane is failed/unavailable as well, the STS can't be removed and MU3 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 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 North Fishway AWS pumps experience frequent but harmless SKF alarms. This is an assessment by Mr. Hicks, JD Mechanical Supervisor:

"My belief is this type of system is failing on a regular basis due to the design of the SKF, when filling the reservoir air is being introduced to the system because the grease is pushed into the bottom of the reservoir. This causes an air pocket that will not automatically bleed out of the system, causing the alarm. Our normal fix is to purge the grease through the system. A permanent fix would be to be able to add grease to the storage reservoir from the top instead of the bottom." The issue is pending until resolved.

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:

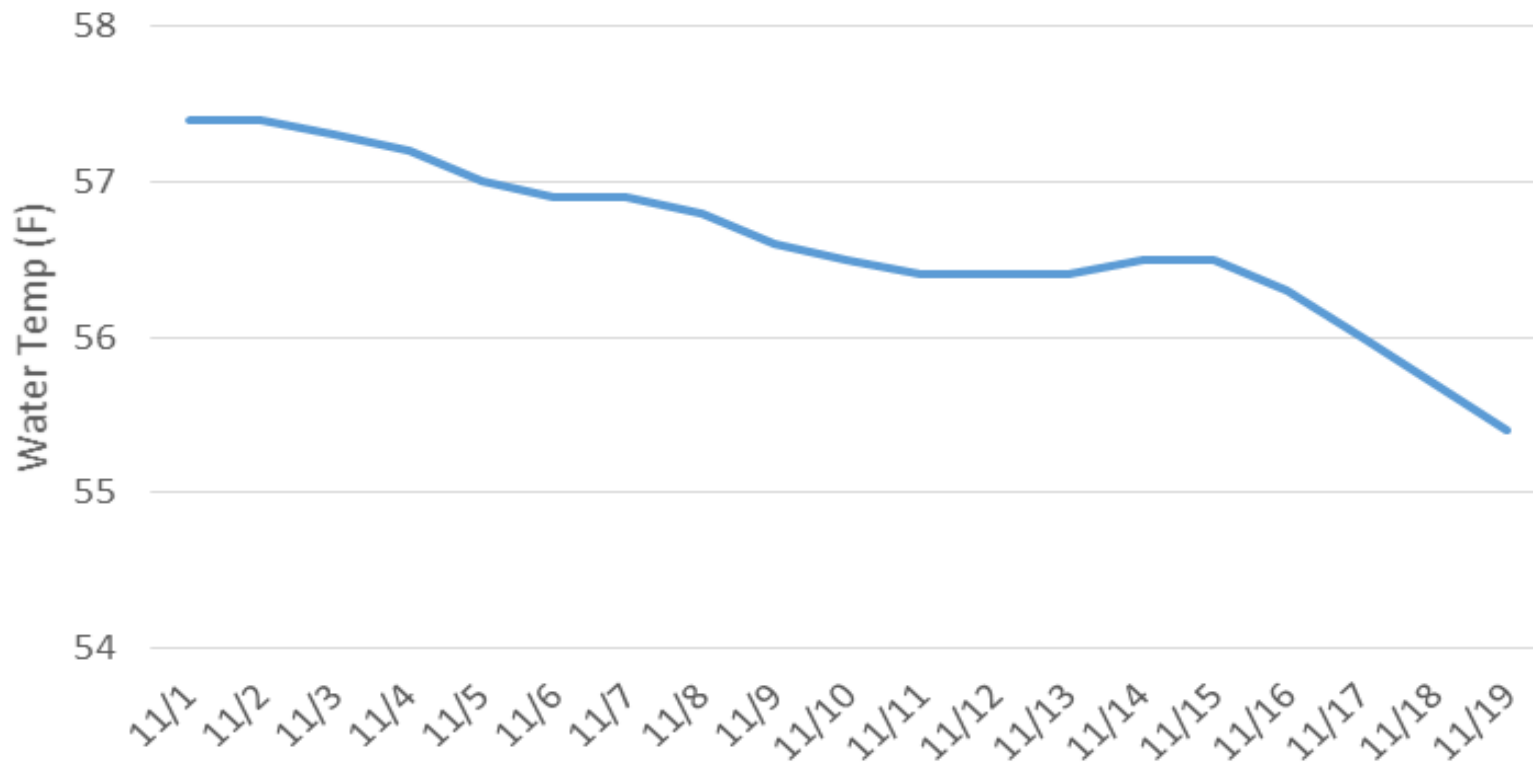
Adult Fish Counting by Normandeau Associates completed on 31 October 2016.

Adult PIT antennas PDT continues on the contract award for this winter's installation at both JD Fishways.

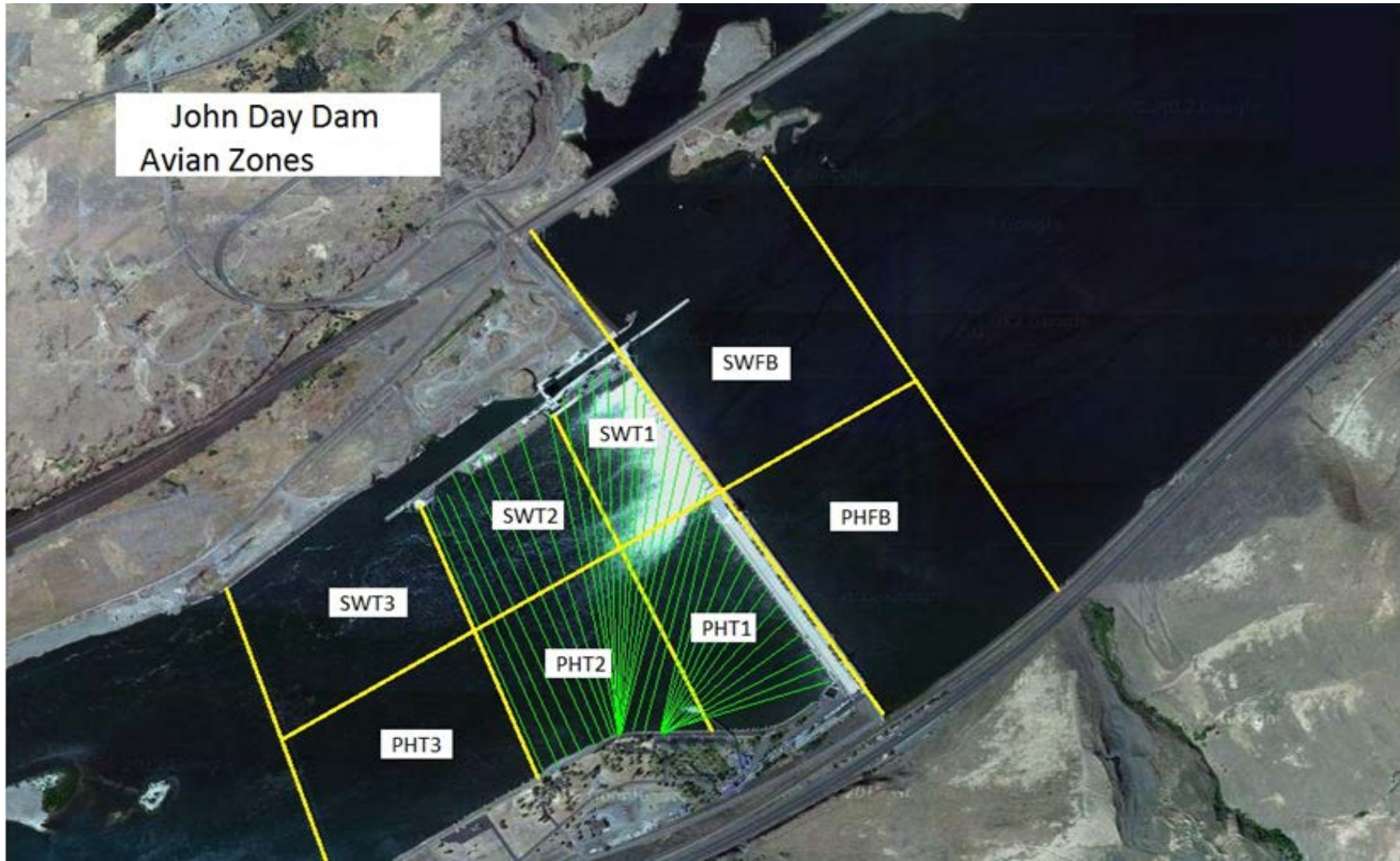
Kevin Moynahan
OPM John Day/Willow Creek Project

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

Average Daily Tailwater Temperatures (F) JDA



John Day Dam
Avian Zones



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: 11/13/16 to 11/19/16

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)	
13-Nov	PHFB	0	0	32	42	0	0	14	0	0	0	0	0	0	0	0	0	0	0	16	0	104
13-Nov	SWFB	0	0	95	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110
13-Nov	PH1	37	12	0	0	21	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
13-Nov	PH2	6	2	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
13-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Nov	SW1	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4
13-Nov	SW2	0	0	0	0	0	0	22	61	0	0	0	0	0	0	0	0	0	0	0	0	83
13-Nov	SW3	0	0	0	0	0	0	36	53	0	0	0	0	0	0	0	0	0	0	0	0	89
Avg/Survey		29		92		19		95		0		0		0		0		0		8		485
14-Nov	PHFB	0	0	108	19	0	0	16	0	0	0	0	0	0	0	0	0	0	0	17	17	177
14-Nov	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Nov	PH1	28	25	0	0	20	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94
14-Nov	PH2	6	16	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
14-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Nov	SW2	0	0	0	0	0	0	36	42	0	0	0	0	0	0	0	0	0	0	0	0	78
14-Nov	SW3	0	0	0	0	0	0	43	22	0	0	0	0	0	0	0	0	0	0	0	0	65
Avg/Survey		38		64		25		80		0		0		0		0		0		17		444
15-Nov	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Nov	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		0		0		0
16-Nov	PHFB	0	0	34	370	0	0	24	2	0	0	0	0	0	0	0	0	0	0	25	0	455
16-Nov	SWFB	0	0	416	287	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	707
16-Nov	PH1	49	37	0	0	8	20	0	0	0	0	0	0	0	0	0	0	7	0	0	0	121
16-Nov	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16-Nov	PH3	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	39
16-Nov	SW1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16-Nov	SW2	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
16-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		44		554		14		40		0		0		0		0		6		13		1337

JDA Bird Counts: 11/13/16 to 11/19/16

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)	
17-Nov	PHFB	0	0	9	510	0	0	14	0	0	0	0	0	0	0	0	0	0	0	11	0	544
17-Nov	SWFB	0	0	339	160	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	502
17-Nov	PH1	43	69	0	0	18	21	0	0	0	0	0	0	0	0	0	0	5	0	0	0	156
17-Nov	PH2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
17-Nov	PH3	1	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	32
17-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Nov	SW2	0	0	0	0	0	0	27	10	0	0	0	0	0	0	0	0	0	0	0	0	37
17-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		60		509		20		41		0		0		0		0		4		6	1277	
18-Nov	PHFB	0	0	12	554	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	585
18-Nov	SWFB	0	0	323	287	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	610
18-Nov	PH1	37	61	0	0	21	11	0	0	0	0	0	0	0	0	0	0	9	0	0	0	139
18-Nov	PH2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
18-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Nov	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Nov	SW2	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24
18-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		52		588		16		22		0		0		0		0		5		0	1363	
19-Nov	PHFB	0	0	169	21	0	0	1	0	0	0	0	0	0	0	0	0	7	0	8	0	206
19-Nov	SWFB	0	0	205	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	206
19-Nov	PH1	11	75	0	0	8	19	0	0	0	0	0	0	0	0	0	0	12	5	0	0	130
19-Nov	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Nov	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Nov	SW1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
19-Nov	SW2	0	0	0	0	0	0	39	39	0	0	0	0	0	0	0	0	0	0	0	0	78
19-Nov	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		43		198		15		40		0		0		0		0		12		4	622	
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		527		4007		215		633		0		0		0		0		52		94	5528	
Avg/Survey		38		286		15		45		0		0		0		0		4		7	395	

John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	56	6.0	
Mon	56	6.0	
Tue	56	6.0	
Wed	56	6.0	
Thur	56	6.0	
Fri	56	6.0	
Sat	55	6.0	
AVG:	56	6.0	AVG
			0
			MAX
			0
			MIN

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.8	8.8	1.5	8.2	1.5	4.6	1.4
Sun	8.6	8.6	1.6	8.3	1.5	4.5	1.5
Mon	8.7	8.7	1.4	8.9	1.5	4.6	1.5
Mon	8.9	8.9	1.5	8.7	1.4	4.6	1.4
Tues	9.2	9.1	1.4	8.5	1.5	4.6	1.0
Tues	9.1	9.0	1.3	8.5	1.4	4.7	1.0
Wed	8.0	8.1	1.5	8.7	1.4	4.6	1.5
Wed	8.2	8.3	1.5	8.4	1.4	4.5	1.5
Thur	8.2	8.2	1.5	8.4	1.5	4.6	1.4
Thur	8.0	8.0	1.5	8.2	1.6	4.6	1.7
Fri	8.5	8.5	1.6	8.2	1.5	4.6	1.5
Fri	9.1	9.1	1.4	8.7	1.5	4.6	1.6
Sat	8.8	8.8	1.5	8.3	1.6	4.6	1.6
Sat	9.0	9.0	1.6	8.2	1.6	4.6	1.5
AVG:	8.7	8.7	1.5	8.4	1.5	4.6	1.4