


# FISHWAY STATUS REPORT

**Date:** 5/13/2017  
**Inspection Period:** 5/7/2017 thru 5/13/2017



**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 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	Inspections	Criteria	Total Number of Inspections: 14	Temperature: 53 F
	Out of Criteria	Limit		Secchi: 3.6 Ft.
<b>NORTH FISHWAY</b>			In service with all 6 AWS pumps available since 1/19/17.	
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 1.6	
<b>SOUTH FISHWAY</b>			In service since 3/3/17 with 2 out of 3 AWS turbines available.	
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 1.1	
Entrance weir SE1	0	depth (≥ 8')	AVG 8.2	
Collection channel velocity	0	1.5 - 4 fps	AVG	
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG 1.8	
Entrance weir NE1	0	depth (≥ 8')	AVG 11.3	
Entrance weir NE2	0	depth (≥ 8')	AVG 11.2	
<b>JUVENILE PASSAGE</b>			JBS in service since 3/30/17.	
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	0	visual inspect	STS camera inspection completed on 4/20. 3 bad STSs were replaced with working spares.	
Turbine trashrack drawdown	0	<1.5', wkly	Trashrack Crane OOS since 3/27. ETR is mid May.	
Vert barrier screen drawdown	0	<1.5', wkly		
Spill volume	0	FOP	Fish spill continues since 4/10. Spillbays 5, 3 & 17 OOS due to bad brakes.	
Spill pattern	0	TSW per FPP		
Turbine Unit Priority	0	per FPP	MU 1 & 2 downrated due to 1.6' differential since 4/02.	
Turbine 1% Efficiency	0	per FPP		

## SMOLT MONITORING FACILITY

**Operation:**

SMF in service since 3/28 with every other day, 24 hrs condition sampling.

**Maintenance:**

A section of gasket came out/ bulged from underneath of the SMF Switch Gate while it was moved on 4/22. Two juvenile chinook mortalities were found caught in the gasket's bulge. See 17JDA05 MFR for details. There were no additional mortalities since then and it appears that the gasket's repair can wait until the winter maintenance season.

STS annual maintenance is ongoing.

SMF SCADA update/mods' investigation by JD Electrical/ Portland District Engineers is underway.

**Research:** Approval of access' letters are being sent out for this year's research/access requests

**Birds :**

see the Avian Numbers tab.

6 Tower-to-Tower, 1 spillway and 2 PH lines are missing out of 125 grid's total. They will be reinstalled for the 2018 passage season.

**Operations:**

MU 12's dewatering on 5/01 resulted in an accidental stranding of smolts on top of two entrance bulkheads. JD Fisheries salvaged approx. 1000 live smolts and approx. 3500 smolt mortalities. See the 2017JDA06MFR MU12 Juvenile Salmonid Mortalities for details.

Trashrack Crane OOS returned to service on 5/11/17, PM. MU 1, 2 & 8 trashracks were raked immediately that day.

MU 1 & 2 downrated to lower MWs due to trashrack' s differential at 1.6' on 4/02.

JD South Fishway in service with two AWS Turbines and meeting all FPP criteria since 3/3/17.

JD North Fishway in service with all 6 AWS pumps available and meeting all FPP criteria since 1/19/17.

MU Gatewell Drawdowns: weekly or more frequently as necessary.

**Maintenance:**

Trashrack Crane OOS returned to service on 5/11/17. MU 1, 2 & 8 trashracks were raked that day.

Spillbays 5, 3 & 17 OOS due to bad brakes. The JD Spillway brakes' assemblies are outdated and are causing the pads to wear out at an unusually high rate. The custom made parts are difficult to contract out and take long time to procure. However, there is no funding for the necessary brakes' assemblies redesign.

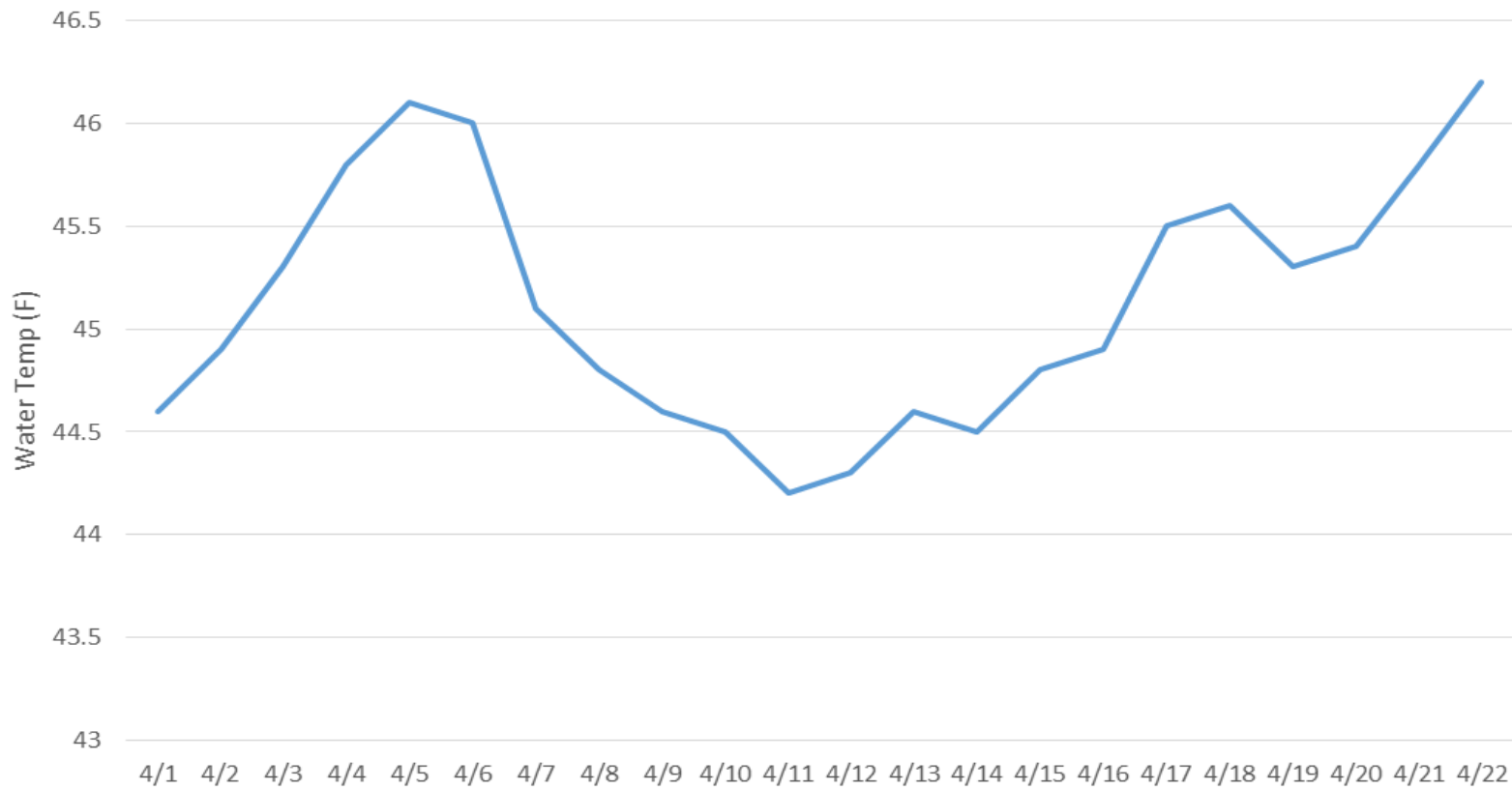
JD STS crane's emergency repairs were all completed in February with the minor glitches/ adjustments continuing. The crane remains in a risky operational condition until it's replaced with a brand new machine. However, the necessary \$ 5 million for its replacement is not yet available.

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

**Research:**

Adult PIT antennas' installation at JD South Fishway finished on 23 Feb. Both ladders' antennas in service with temporary power sources.

John Day Dam Water Temperature April 2017



## JDA Collection Channel Velocity

Date 22-Apr-17

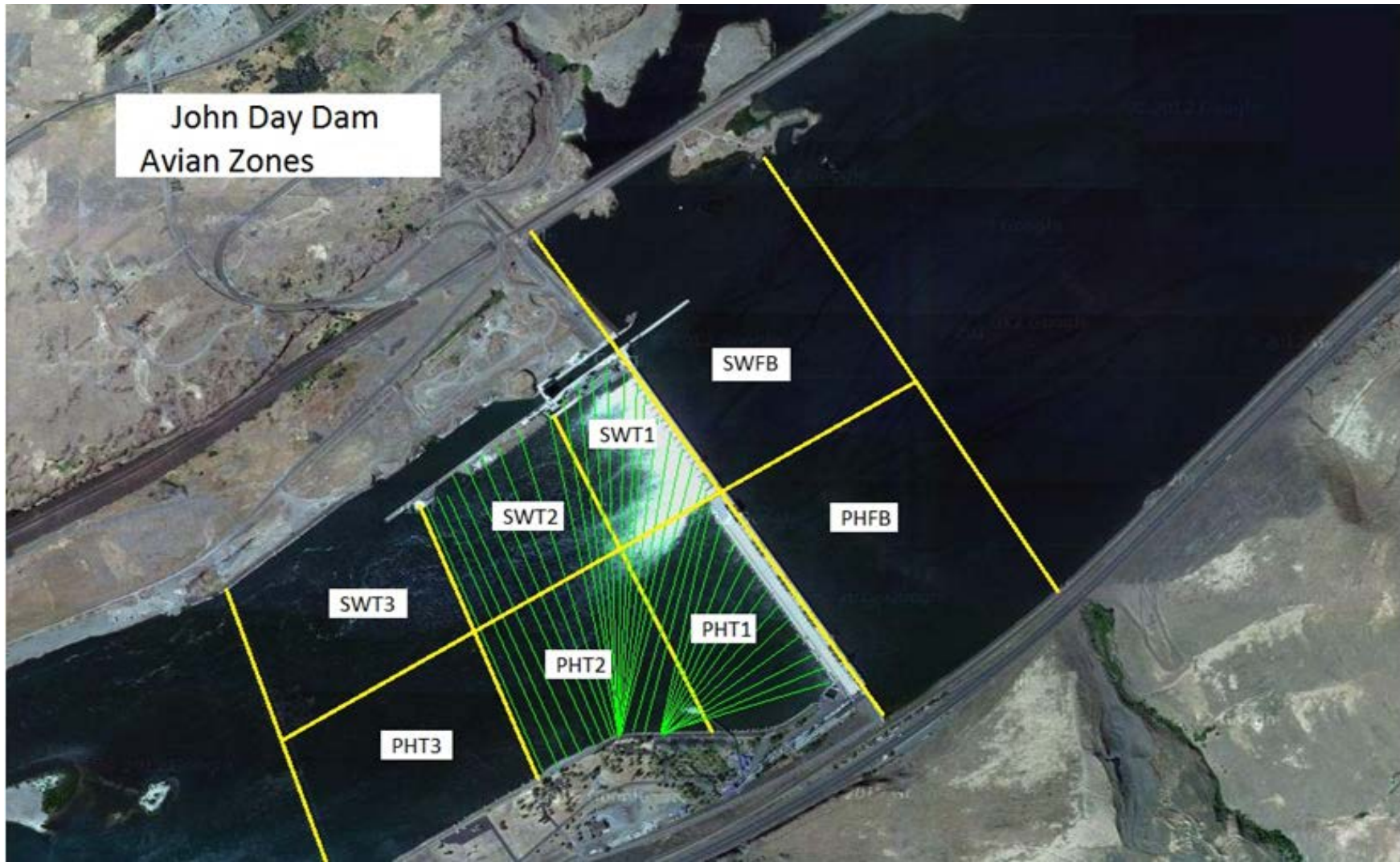
By: pr, mb

Bay(s)	Time	Sec.	Velocity (f/s)
0-2	0:57	57	3.16
2 - 4	1:59	119	2.90
4 - 6	3:07	187	2.65
6 - 8	4:20	260	2.47
8 - 10	5:27	327	2.69
10 - 12	6:32	392	2.77
12 - 14	7:34	454	2.90
14 - 16	8:39	519	2.77
16 - 18	9:35	575	3.21
			<b>2.84</b>

TW	165.0
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#1 RPM	0.0
#2 RPM	68
#3 RPM	68

John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	53	3.0	118
Mon	53	3.0	
Tue	53	3.0	81
Wed	53	4.0	
Thur	54	4.0	74
Fri	53	4.0	
Sat	53	4.0	69
<b>AVG:</b>	<b>53</b>	<b>AVG: 3.6</b>	<b>AVG 86</b>
			<b>MAX 118</b>
			<b>MIN 69</b>

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	11.4	11.4	1.0	8.2	1.4	4.6	1.7
Sun	11.4	11.3	1.2	8.2	1.8	4.6	2.0
Mon	11.3	11.1	1.2	8.2	1.6	4.7	2.0
Mon	12.1	12.1	1.1	8.2	1.6	4.5	1.8
Tues	11.6	11.4	1.0	8.2	1.3	4.6	1.8
Tues	11.2	11.2	1.0	8.2	1.7	4.5	2.0
Wed	10.4	10.4	1.1	8.0	1.7	4.5	1.9
Wed	10.9	10.9	1.2	8.1	1.6	4.3	1.7
Thur	10.8	10.8	1.2	8.1	1.5	4.6	1.8
Thur	11.3	11.1	1.2	8.3	1.5	4.6	1.7
Fri	11.3	11.2	1.1	8.2	1.5	4.5	1.6
Fri	11.2	11.2	1.1	8.2	1.5	4.5	1.6
Sat	11.2	11.1	1.0	8.2	1.6	4.5	1.6
Sat	12.0	12.0	1.0	8.3	1.5	4.5	1.5
<b>AVG:</b>	<b>11.3</b>	<b>11.2</b>	<b>1.1</b>	<b>8.2</b>	<b>1.6</b>	<b>4.5</b>	<b>1.8</b>

**JDA Bird Counts: 5/13/17 to 5/19/17**

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)	
13-May	PHFB	0	0	0	0	0	0	6	3	0	0	0	0	0	0	0	0	22	19	0	0	50 0 0 0 3 0 0 162
13-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	PH3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13-May	SW3	77	81	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	
Avg/Survey		81		0		0		5		0		0		2		0		21		0		215
14-May	PHFB	0	0	6	11	0	0	3	0	0	0	0	0	0	0	0	0	31	28	0	0	79 0 0 0 1 0 3 96
14-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	SW2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14-May	SW3	67	27	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	
Avg/Survey		49		9		0		2		0		0		1		0		30		0		179
15-May	PHFB	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	29	17	0	0	50 0 0 0 9 0 6 161
15-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	PH3	2	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	SW2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15-May	SW3	92	55	0	0	0	0	0	0	0	0	0	0	8	6	0	0	0	0	0	0	
Avg/Survey		82		1		0		0		0		0		7		0		23		0		226
16-May	PHFB	0	0	11	7	0	0	0	0	0	0	0	0	0	0	0	0	21	22	0	0	61 0 0 0 4 0 4 19
16-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	PH3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	SW2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16-May	SW3	8	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Avg/Survey		14		9		0		0		0		0		0		0		22		0		88

**JDA Bird Counts: 5/13/17 to 5/19/17**

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)	
17-May	PHFB	0	0	3	7	0	0	0	0	0	0	0	0	0	0	0	0	43	43	0	0	96 2 0 0 0 0 2 60
17-May	SWFB	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	SW2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17-May	SW3	17	43	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>6</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>43</b>		<b>0</b>		<b>160</b>
18-May	PHFB	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	49	15	0	0	66 0 2 0 7 0 0 98
18-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	PH1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	PH3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	SW3	23	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Avg/Survey</b>		<b>54</b>		<b>1</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>173</b>
19-May	PHFB	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	40	40	0	0	84 3 0 0 0 0 0 127
19-May	SWFB	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	SW3	16	109	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	
<b>Avg/Survey</b>		<b>63</b>		<b>2</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>40</b>		<b>0</b>		<b>214</b>
<b>Totals</b>		<b>Gulls</b>				<b>Cormorant</b>				<b>Caspian tern</b>				<b>White Pelican</b>				<b>Grebe</b>				<b>Total</b>
		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		<b>F</b>		<b>NF</b>		
<b>Weekly Total</b>		<b>744</b>		<b>54</b>		<b>0</b>		<b>16</b>		<b>0</b>		<b>0</b>		<b>22</b>		<b>0</b>		<b>419</b>		<b>0</b>		
<b>Avg/Survey</b>		<b>53</b>		<b>4</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>30</b>		<b>0</b>		<b>90</b>