


# FISHWAY STATUS REPORT

**Date:** 3/25/2017  
**Inspection Period:** 3/19/2017 thru 3/25/2017



**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: 43 F
	Out of Criteria	Limit		Secchi: 2.2 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 1.5	
<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 8.3	
Collection channel velocity	0	1.5 - 4 fps	AVG	
N. Entrance PH(Bay 19)differential	<b>1</b>	1.0' - 2.0'	AVG 1.9	2.1 ' on 3/21 PM, immediately adjusted in manual mode
Entrance weir NE1	0	depth (≥ 8')	AVG 8.5	
Entrance weir NE2	0	depth (≥ 8')	AVG 8.5	
<b>JUVENILE PASSAGE</b>			All STSs will be installed starting 3/27 and JBS will be in regular service by that day as well.	
Forebay/bypass conduit differential	oos	4.0' - 5.0'	AVG 4.6	
Submersible traveling screens	oos	visual inspect		
Turbine trashrack drawdown	oos	<1.5', wkly	Early raking of the Turbine intakes' trashracks ongoing due to high river debris loads.	
Vert barrier screen drawdown	oos	<1.5', wkly		
Spill volume	oos	N/A	Emergency/ Unplanned spill due to high river flows is ongoing.	
Spill pattern	oos	per FPP	Unplanned spill due to high river flows is ongoing. TSWs open since 3/15/17.	
Turbine Unit Priority	oos	per FPP		
Turbine 1% Efficiency	oos	per FPP		

## SMOLT MONITORING FACILITY

**Operation:**

SMF' RTS is 28 March with first 24 hrs sampling on 2 April 2017.

**Maintenance:**

STS annual maintenance is ongoing at an accelerated rate. Experiencing a shortage of STS parts which are difficult to order due to the JD 2017 O&M Budget's shortages.

A leak of the PDS Dewatering Pipe's joint has been fixed by JD Mechanics in March. The 6 feet diameter pipes had to be uncoupled, realigned and reconnected with use of a mobile crane. It was a challenging job which JD Project had planned for a few years but now the joint is finally fixed !

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

**Research:** Approval of access' letters are being sent out for this years requests

None

**Birds :**

see the Avian Numbers tab.

15 Navlock, 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.

Avian line contractor has been reinstalling missing avian lines since the week of 3/13/17.

**Operations:**

JD TSWs in bays 18 & 19 were activated on 3/15 (annual FOP spill normally starts on 4/10) due to high river flows this year. This early TSWs operation has been an effective in the JD Forebay debris removal due to its surface water's skimming capabilities.

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:**

JD South AWS Turbine 1 bearing's repairs successfully completed by JD Mechanical in March. But its condition continues to be poor and it will be available only as backup if the other turbines fail. Inspection of AWS Turbine 2 was successfully completed 2 March and it returned to regular service the next day.

JD South AWS Turbines 1 and 2 are still in need of a major overhaul and there is no guarantee by the project on their reliability.

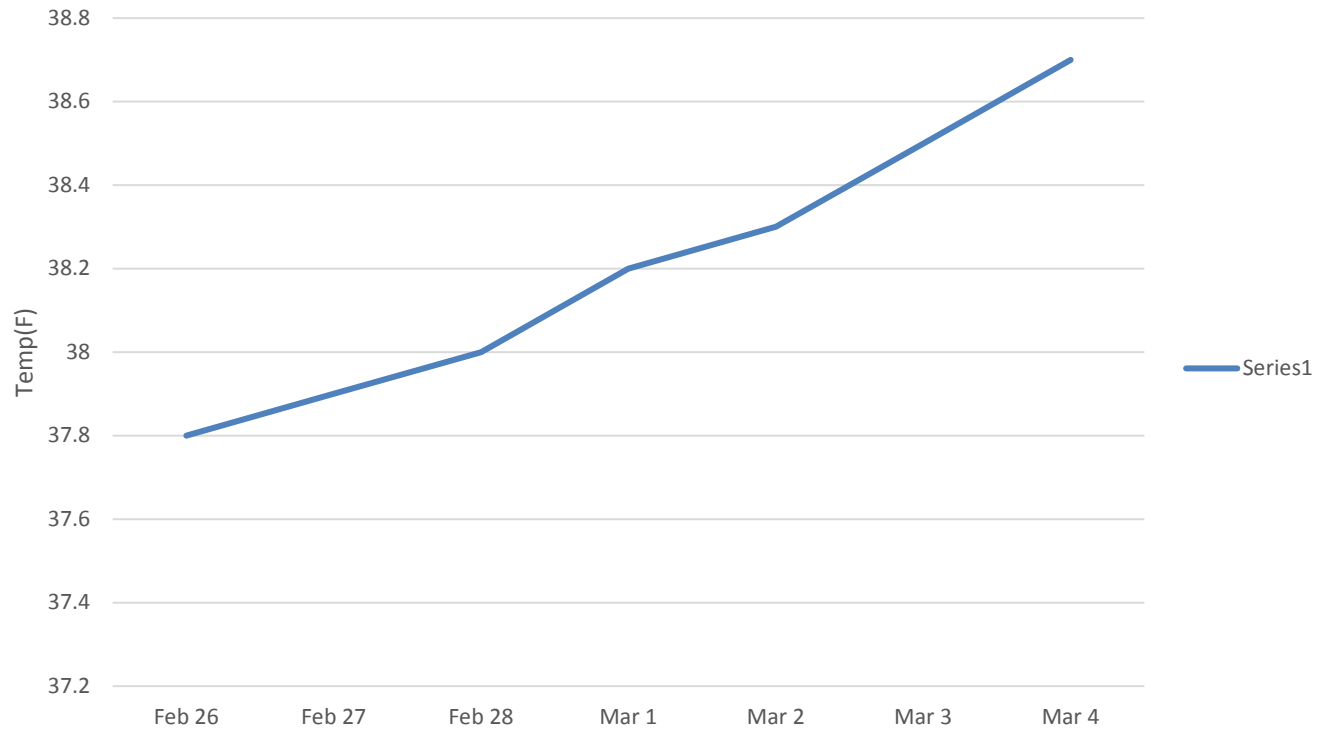
JD STS crane's emergency repairs were all completed in February with the minor glitches/ adjustments continuing. The crane remains in a risky operational condition until it's replaced with a brand new machine. However, the necessary \$ 5 million for its replacement is not yet available.

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.

JDA Water Temperature



## JDA Collection Channel Velocity

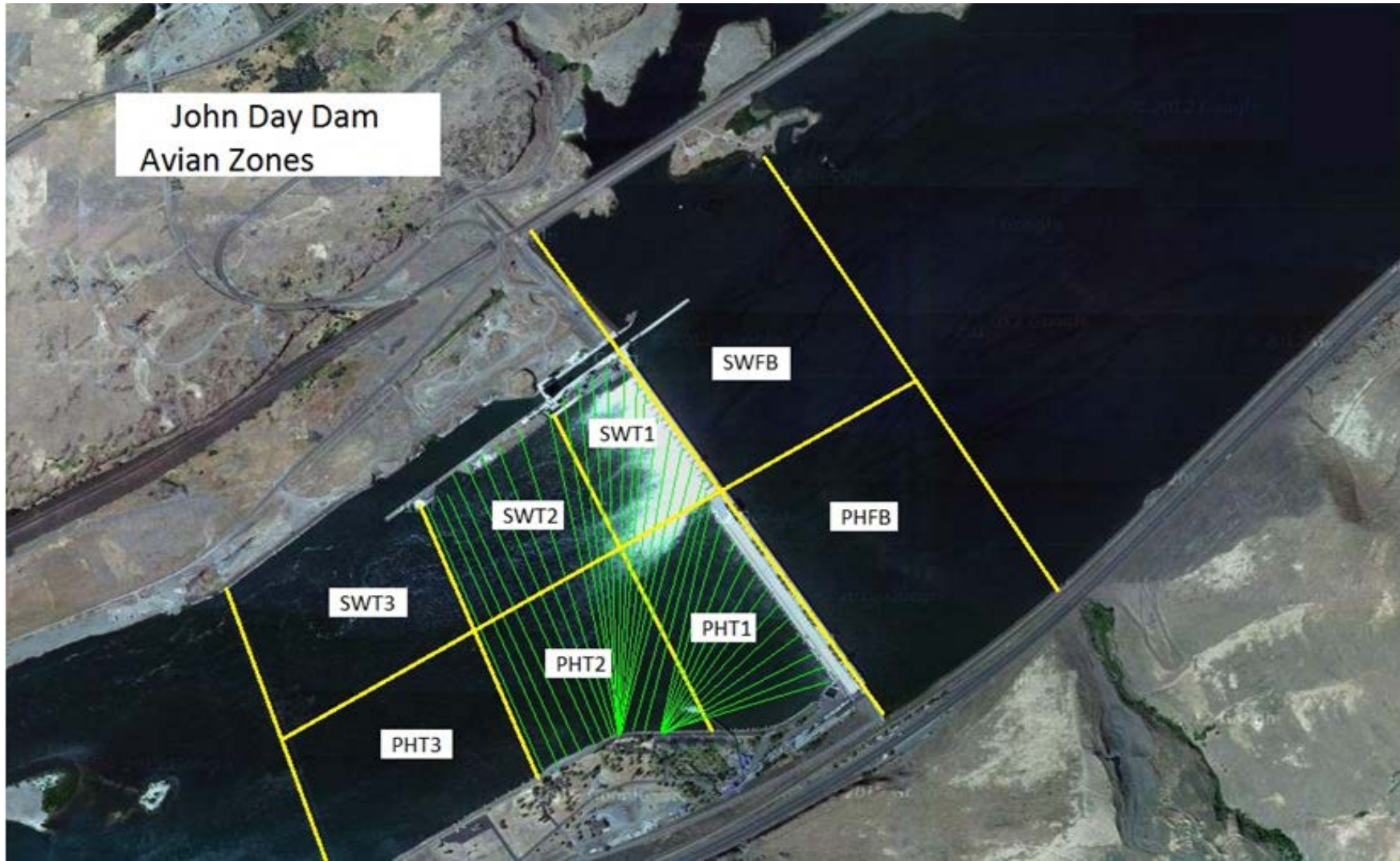
<b>Date</b>	<i>17-Mar-17</i>
<b>By:</b>	<i>MDL</i>

<b>Bay(s)</b>	<b>Time</b>	<b>Sec.</b>	<b>Velocity (f/s)</b>
<i>0-2</i>	<i>0:59</i>	<i>59</i>	<i>3.05</i>
<i>2 - 4</i>	<i>1:56</i>	<i>116</i>	<i>3.16</i>
<i>4 - 6</i>	<i>2:58</i>	<i>178</i>	<i>2.90</i>
<i>6 - 8</i>	<i>3:58</i>	<i>238</i>	<i>3.00</i>
<i>8 - 10</i>	<i>4:58</i>	<i>298</i>	<i>3.00</i>
<i>10 - 12</i>	<i>6:02</i>	<i>362</i>	<i>2.81</i>
<i>12 - 14</i>	<i>6:59</i>	<i>419</i>	<i>3.16</i>
<i>14 - 16</i>	<i>8:00</i>	<i>480</i>	<i>2.95</i>
<i>16 - 18</i>	<i>8:58</i>	<i>538</i>	<i>3.10</i>
			<b>3.02</b>

<b>TW</b>	<b>164.3</b>
-----------	--------------

<b>#1 RPM</b>	<b>0</b>
<b>#2 RPM</b>	<b>68</b>
<b>#3 RPM</b>	<b>67</b>

John Day Dam  
Avian Zones



## John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	43	4.0	
Mon	43	3.0	
Tue	43	2.0	
Wed	43	2.0	
Thur	44	1.5	
Fri	44	1.5	
Sat	43	1.5	
<b>AVG:</b>	<b>43</b>	<b>AVG: 2.2</b>	<b>AVG</b>
			<b>MAX 0</b>
			<b>MIN 0</b>

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	8.4	8.4	1.0	8.2	1.4	4.6	1.8
Sun	8.2	8.2	1.1	8.2	1.4	4.6	1.8
Mon	8.0	8.0	1.1	8.1	1.5	4.6	1.8
Mon	9.9	9.9	1.1	8.9	1.5	4.5	1.7
Tues	8.1	8.1	1.1	8.1	1.6	4.7	2.0
Tues	8.8	8.8	1.2	8.1	1.5	4.6	2.1
Wed	8.2	8.2	1.0	8.2	1.5	4.5	2.0
Wed	8.8	8.8	1.0	8.8	1.5	4.5	2.0
Thur	8.3	8.4	1.1	8.1	1.4	4.9	1.7
Thur	8.3	8.3	1.1	8.1	1.5	4.6	2.0
Fri	8.1	8.0	1.1	8.5	1.7	4.7	1.8
Fri	8.6	8.6	1.1	8.2	1.6	4.6	2.0
Sat	8.6	8.6	1.0	8.2	1.5	4.6	1.8
Sat	8.6	8.6	1.0	8.2	1.4	4.6	2.0
<b>AVG:</b>	<b>8.5</b>	<b>8.5</b>	<b>1.1</b>	<b>8.3</b>	<b>1.5</b>	<b>4.6</b>	<b>1.9</b>

**JDA Bird Counts: 3/19/17 to 3/25/17**

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)		
19-Mar	PHFB	0	0	1	0	0	0	21	9	0	0	0	0	0	0	0	0	0	0	0	0	31	
19-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Mar	PH1	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		4
19-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
19-Mar	SW2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1
19-Mar	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		1		1		15		0		0		0		0		0		0		36	
20-Mar	PHFB	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10	
20-Mar	SWFB	0	0	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0		15
20-Mar	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1
20-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
Avg/Survey		1		1		0		12		0		0		0		0		0		0		26	
21-Mar	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
21-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
21-Mar	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	1	1	
22-Mar	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
22-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
22-Mar	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	1	1	

**JDA Bird Counts: 3/19/17 to 3/25/17**

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)	
23-Mar	PHFB	0	0	0	0	0	0	22	1	0	0	0	0	0	0	0	0	0	0	0	0	<b>23</b>
23-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Mar	SW3	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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</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>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>
24-Mar	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	<b>6</b>
24-Mar	SWFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24-Mar	SW3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Avg/Survey</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</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>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	
25-Mar	PHFB	0	0	3	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	1	1	<b>22</b>
25-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	PH1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	PH2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Mar	SW3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Avg/Survey</b>		<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>8</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>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</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>5</b>		<b>7</b>		<b>1</b>		<b>97</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>5</b>		
<b>Avg/Survey</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>7</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>8</b>