

FISHWAY STATUS REPORT

Date: 5/20/2017
 Inspection Period: 5/14/2017 thru 5/20/2017



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:	3.7 Ft.
NORTH FISHWAY			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		
SOUTH FISHWAY			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	8.1		
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	11.2		
Entrance weir NE2	0	depth (≥ 8')	AVG	11.1		
JUVENILE PASSAGE			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 is scheduled for the next week.			
Turbine trashrack drawdown	0	<1.5', wkly	Trashrack Crane breaking down frequently and JD Maintenance fixing it as necessary.			
Vert barrier screen drawdown	0	<1.5', wkly				
Spill volume	0	FOP	Fish spill continues since 4/10. Spillbays 5 & 3 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 :

USDA gull hazing from boat downstream of JD Tailrace BRZ commenced on 5/15. The numbers of gulls fishing at JD have been low so far in 2017.

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:

Spillbay # 17 brakes were fixed and it returned to service on 5/16. Spillbays 3 & 5 will be repaired soon in spite the negative Spillway funding!

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

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 but it continues breaking down frequently. JD Maintenance is fixing it as necessary.

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 \$ 5 million for its replacement is not yet available.

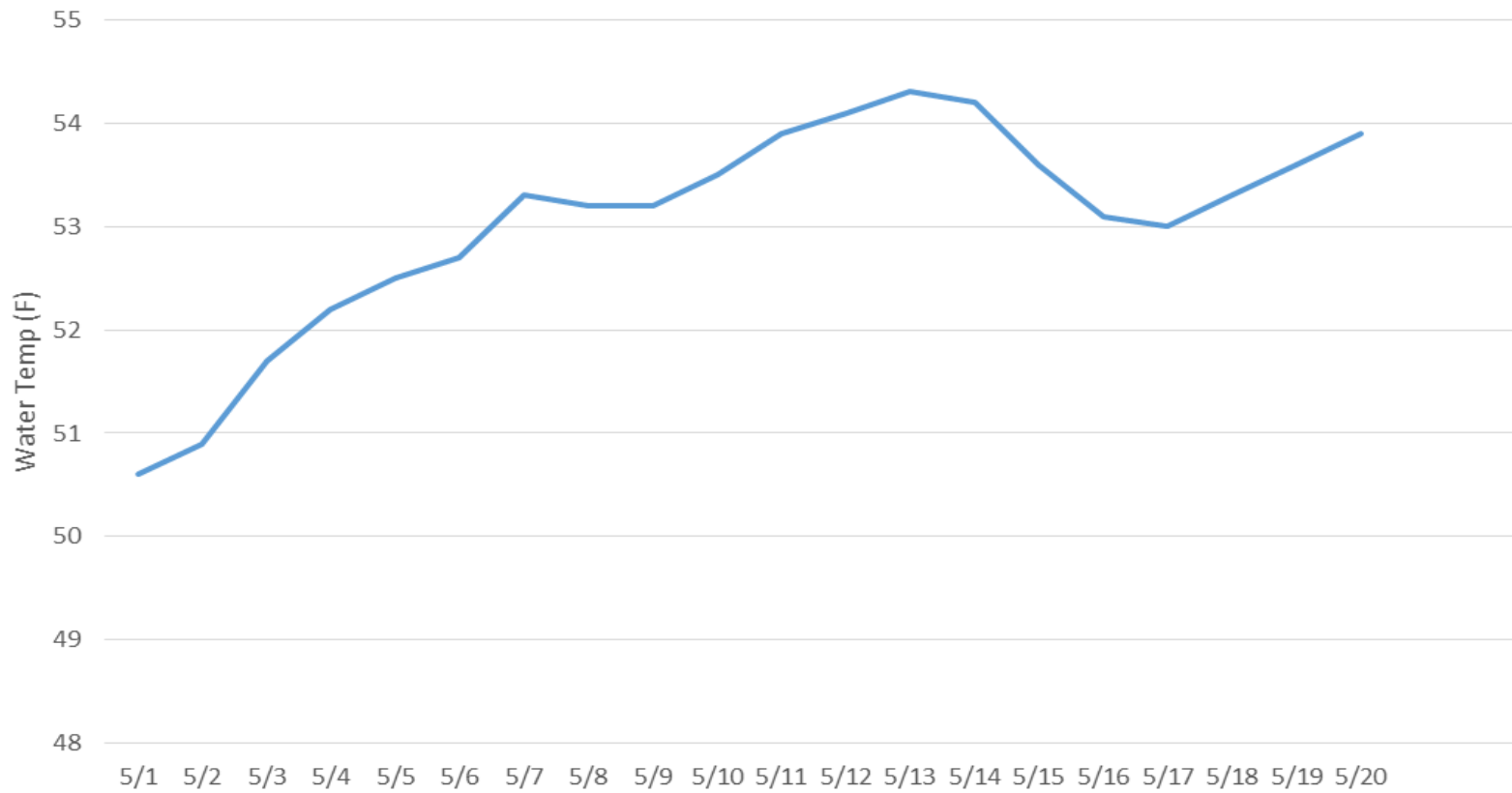
Calibration: All gauges/ sensors are within the criteria of 0.3' .

Research:

WDFW angling crew commenced the pikeminnow removal from JD PH tailrace (fishing from PH deck) on 5/15.

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 May 2017



JDA Collection Channel Velocity

Date 22-Apr-17

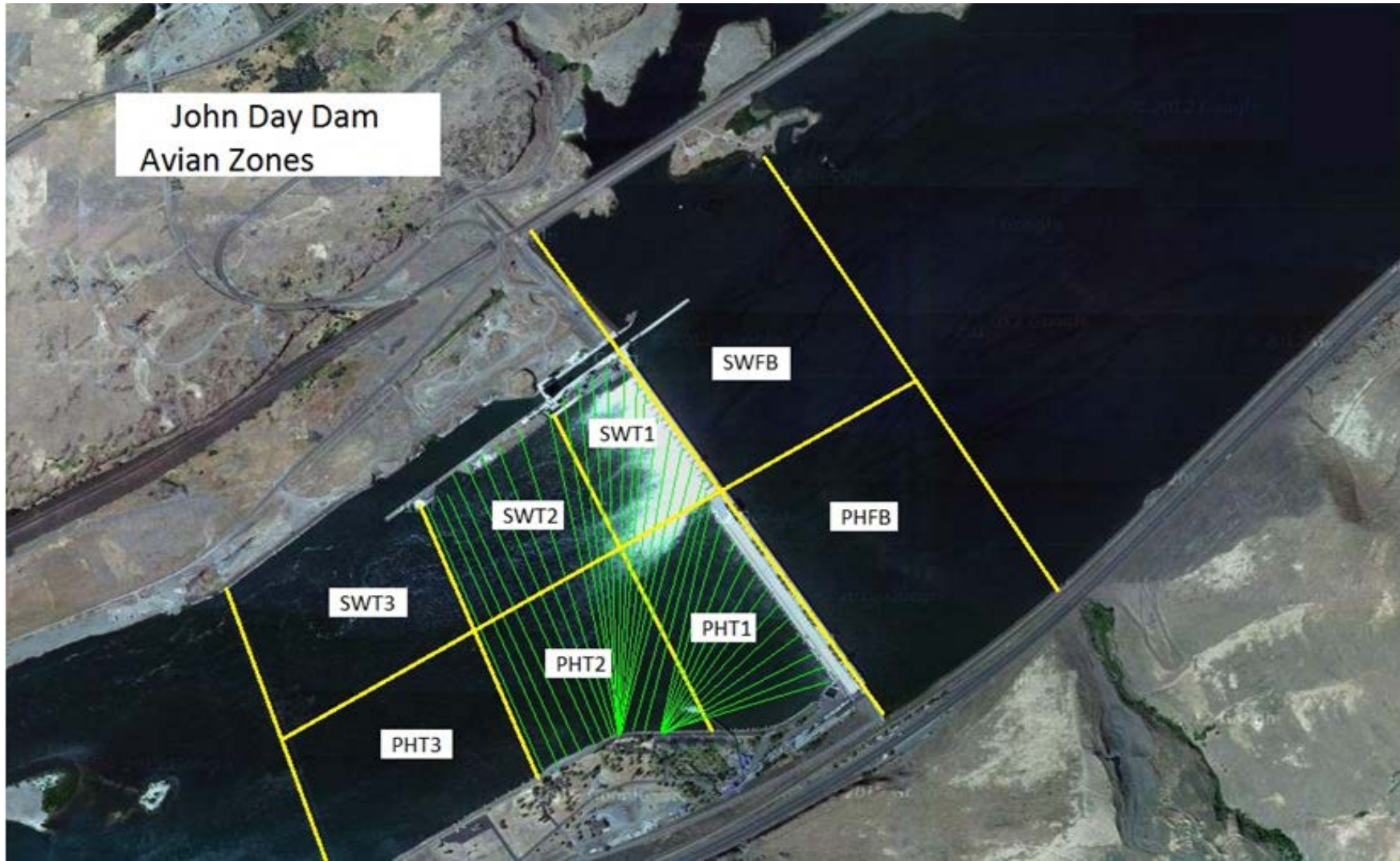
By: pr, mb

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
			2.84

TW 165.0

#1 RPM	0.0
#2 RPM	68
#3 RPM	68

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	54	4.0	51
Mon	54	4.0	96
Tue	53	4.0	57
Wed	53	3.5	99
Thur	53	3.5	64
Fri	53	3.5	67
Sat	53	3.5	53
AVG:	53	AVG: 3.7	AVG 70
			MAX 99
			MIN 51

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	11.2	11.2	1.0	8.1	1.6	4.6	1.6
Sun	11.4	11.4	1.1	8.2	1.4	4.5	1.8
Mon	11.5	11.5	1.0	8.2	1.4	4.5	1.7
Mon	11.5	11.5	1.0	8.1	1.6	4.3	1.8
Tues	10.8	10.8	1.1	8.1	1.6	4.5	1.7
Tues	11.5	11.5	1.1	8.2	1.4	4.5	1.8
Wed	11.3	11.1	1.0	8.0	1.5	4.6	1.9
Wed	11.7	11.6	1.0	8.2	1.5	4.2	1.8
Thur	11.7	11.5	1.0	8.2	1.5	4.6	1.9
Thur	11.2	11.3	1.2	8.0	1.3	4.6	2.0
Fri	10.6	10.4	1.0	8.2	1.6	4.7	1.9
Fri	11.2	11.0	1.1	8.0	1.5	4.5	1.0
Sat	10.7	10.5	1.2	8.0	1.7	4.6	2.0
Sat	10.6	10.1	1.1	8.2	1.6	4.5	1.9
AVG:	11.2	11.1	1.1	8.1	1.5	4.5	1.8

JDA Bird Counts: 5/14/17 to 5/20/17

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)	
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	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	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	0	0	22	0							88		
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	
Avg/Survey		31	6	0	0	0	0	0	0	0	0	43	0							160		

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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-May	PHFB	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	49	15	0	0	66	
18-May	SWFB	0	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		2
18-May	PH2	0	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		7
18-May	SW1	0	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		0
18-May	SW3	23	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		98
Avg/Survey		54		1		0		0		0		0		0		0		32		0			173
19-May	PHFB	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	40	40	0	0	84	
19-May	SWFB	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0		3
19-May	PH1	0	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		0
19-May	PH3	0	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		0
19-May	SW2	0	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		127
Avg/Survey		63		2		0		2		0		0		1		0		40		0			214
20-May	PHFB	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0	44	49	0	0	102	
20-May	SWFB	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0		4
20-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
20-May	SW1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		3
20-May	SW2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5
20-May	SW3	14	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		71
Avg/Survey		40		5		0		2		0		0		0		0		47		0			185
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total	
		F		NF		F		NF		F		NF		F		NF		F		NF			
Weekly Total		662		63		0		11		0		0		18		0		471		0			1225
Avg/Survey		47		5		0		1		0		0		1		0		34		0		88	