

FISHWAY STATUS REPORT

Date: 4/22/2017
 Inspection Period: 4/16/2017 thru 4/22/2017



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:	46 F
	Out of Criteria	Limit			Secchi:	2.7 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	1.3		
Entrance weir SE1	0	depth (≥ 8')	AVG	8.3		
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	10.7		
Entrance weir NE2	0	depth (≥ 8')	AVG	10.7		
JUVENILE PASSAGE			All STSs installed by 3/30. JBS in regular service that day as well.			
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:

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:

Trashrack Crane OOS due to burnt up hoist motor on 3/27. JD unable to rake debris from the intake trashracks until the crane is fixed. ETR in mid May.

Adult steelhead mortality found on the PH tailrace deck next to Spillbay 20 on 4/07. FPOM suggested to limit spillbay 20 to 3 stops to reduce its turbulence.

See 17JDA03MOC for details.

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

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 partially 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:

The burnt up Trashrack Crane's motor was shipped for repairs on 4/07. ETR in mid May.

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.

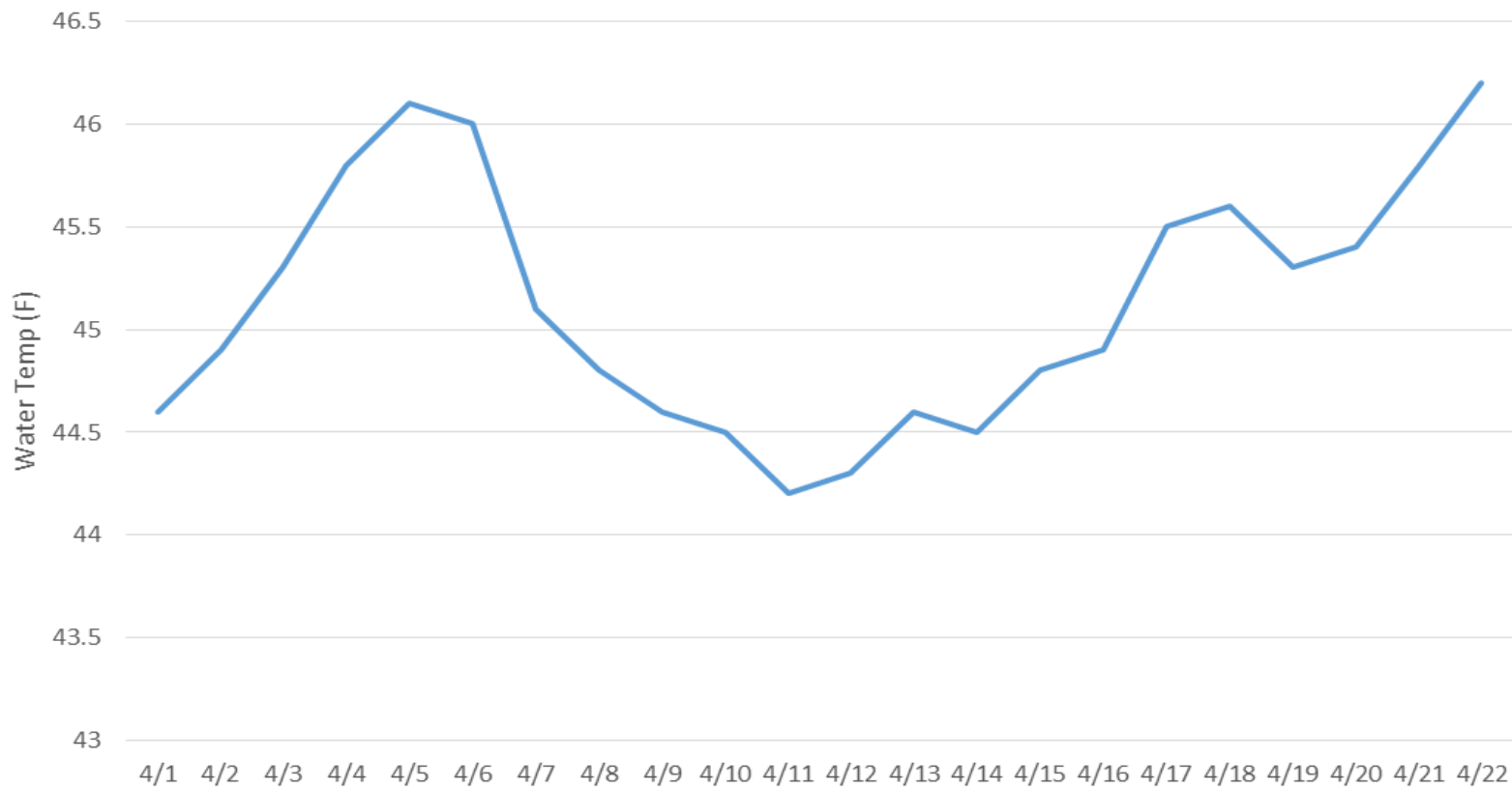
JD STS crane's emergency repairs were all completed in February with the minor glitches/ adjustments continuing. The crane remains in a risky operational condition until it's replaced with a brand new machine. However, the necessary \$ 5 million for its replacement is not yet available.

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

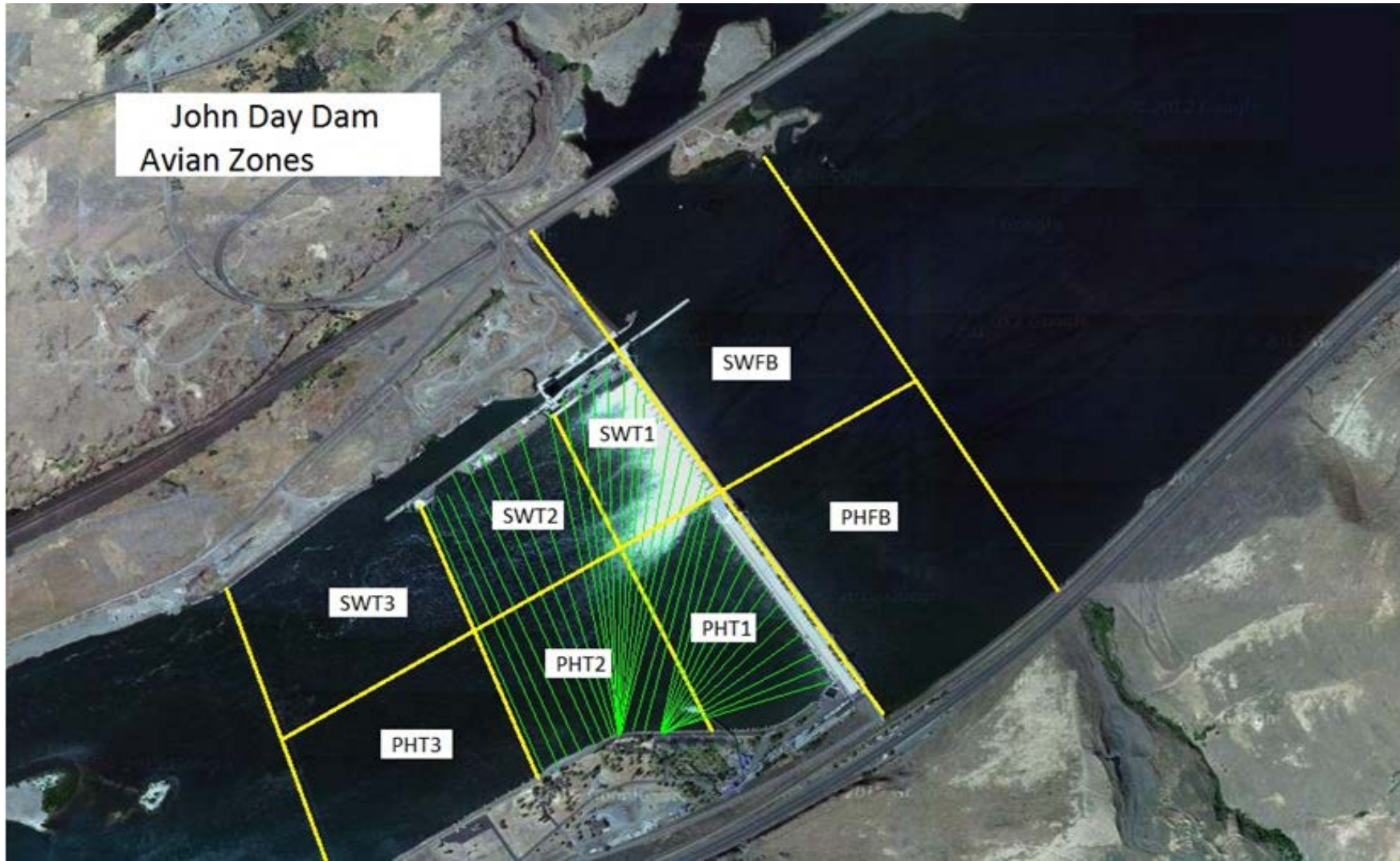
By: pr, mb

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
			2.84

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	45	3.5	38
Mon	46	3.5	49
Tue	48	3.0	21
Wed	48	3.5	47
Thur	48	3.5	20
Fri	48	3.5	63
Sat	49	3.5	36
AVG:	47	AVG: 3.4	AVG 39
			MAX 63
			MIN 20

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.2	10.2	1.4	8.1	1.7	4.5	1.8
Sun	9.9	9.9	1.4	8.3	1.4	4.6	1.9
Mon	9.8	9.8	1.4	8.4	1.5	4.5	1.8
Mon	9.3	9.3	1.5	8.3	1.6	4.6	1.9
Tues	10.3	10.3	1.4	8.0	1.6	4.5	1.9
Tues	10.7	10.6	1.5	8.4	1.4	4.5	2.0
Wed	9.8	9.8	1.4	8.2	1.6	4.5	1.9
Wed	9.7	9.7	1.6	8.2	1.5	4.6	1.9
Thur	9.2	9.2	1.4	8.3	1.6	4.7	1.8
Thur	9.6	9.6	1.5	8.2	1.5	4.5	1.8
Fri	10.3	10.4	1.4	8.3	1.6	4.5	1.9
Fri	10.9	11.0	1.3	8.2	1.5	4.6	2.0
Sat	10.5	10.5	1.4	8.2	1.5	4.6	2.0
Sat	10.4	10.3	1.3	8.1	1.6	4.6	1.9
AVG:	10.0	10.0	1.4	8.2	1.5	4.6	1.9

JDA Bird Counts: 4/16/17 to 4/22/17

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)	
16-Apr	PHFB	0	0	0	0	0	0	22	12	0	0	0	0	0	0	0	0	4	0	39	43	120
16-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Apr	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	17	0	0	0	0	0	0	0	2	41	120						
17-Apr	PHFB	0	1	0	0	0	0	24	8	0	0	0	0	0	0	5	0	36	45	119		
17-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17-Apr	PH1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
17-Apr	PH2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
17-Apr	PH3	2	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6		
17-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17-Apr	SW3	2	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	9		
Avg/Survey		9	0	1	16	0	0	1	0	3	41	138										
18-Apr	PHFB	0	0	0	0	0	0	28	8	0	0	0	0	0	0	4	34	41	0	115		
18-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18-Apr	PH1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4		
18-Apr	PH2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5		
18-Apr	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
18-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18-Apr	SW2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
18-Apr	SW3	0	5	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	9		
Avg/Survey		10	0	0	18	0	0	2	0	19	21	138										
19-Apr	PHFB	0	0	3	4	2	2	2	2	0	0	0	0	0	0	24	24	24	24	111		
19-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19-Apr	PH1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		
19-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19-Apr	SW3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6		
Avg/Survey		5	4	2	2	0	0	0	0	24	24	120										

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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)	
20-Apr	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	24	28	24	28	105
20-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
20-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	SW3	5	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Avg/Survey		15		1		0		0		0		0		0		0		26		26		134
21-Apr	PHFB	0	31	1	0	0	9	0	0	0	0	0	0	0	0	0	0	21	24	24	24	134
21-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	SW3	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Avg/Survey		22		1		5		0		0		0		0		0		23		24		146
22-Apr	PHFB	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	0	24	0	24	54
22-Apr	SWFB	0	0	0	1	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	10
22-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	SW3	6	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Avg/Survey		9		3		0		5		0		0		0		1		12		12		81
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F	NF			F	NF			F	NF			F	NF			F	NF			
Weekly Total		134	15			14	115			0	0			6	1			216	376			877
Avg/Survey		10	1			1	8			0	0			0	0			15	27			63