


FISHWAY STATUS REPORT

Date: 5/6/2017
Inspection Period: 4/30/2017 thru 5/6/2017



**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:	52 F
	Out of Criteria	Limit			Secchi:	3.4 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	1.4		
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	10.1		
Entrance weir NE2	0	depth (≥ 8')	AVG	10.1		
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 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	per FPP	Fish spill continues since 4/10. Spillbays 5, 3 & 17 OOS due to bad brakes.			
Spill pattern	0	TSW				
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

Fallbacks: AVG: 0 MAX: 0 MIN: N.Ent

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 2017JDA06MFR MU12 Juvenile Salmonid Mortalities for details.

MU 12 scroll case was dewatered on 5/02 AM. JD Fisheries successfully salvaged 2 juvenile steelhead but 7 j. steelhead were found freshly dead.

MU12 draft tube was dewatered on 5/03. JD Fisheries successfully salvaged approx. 100 juvenile steelhead and 4 mid-size sturgeon.

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.

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:

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.

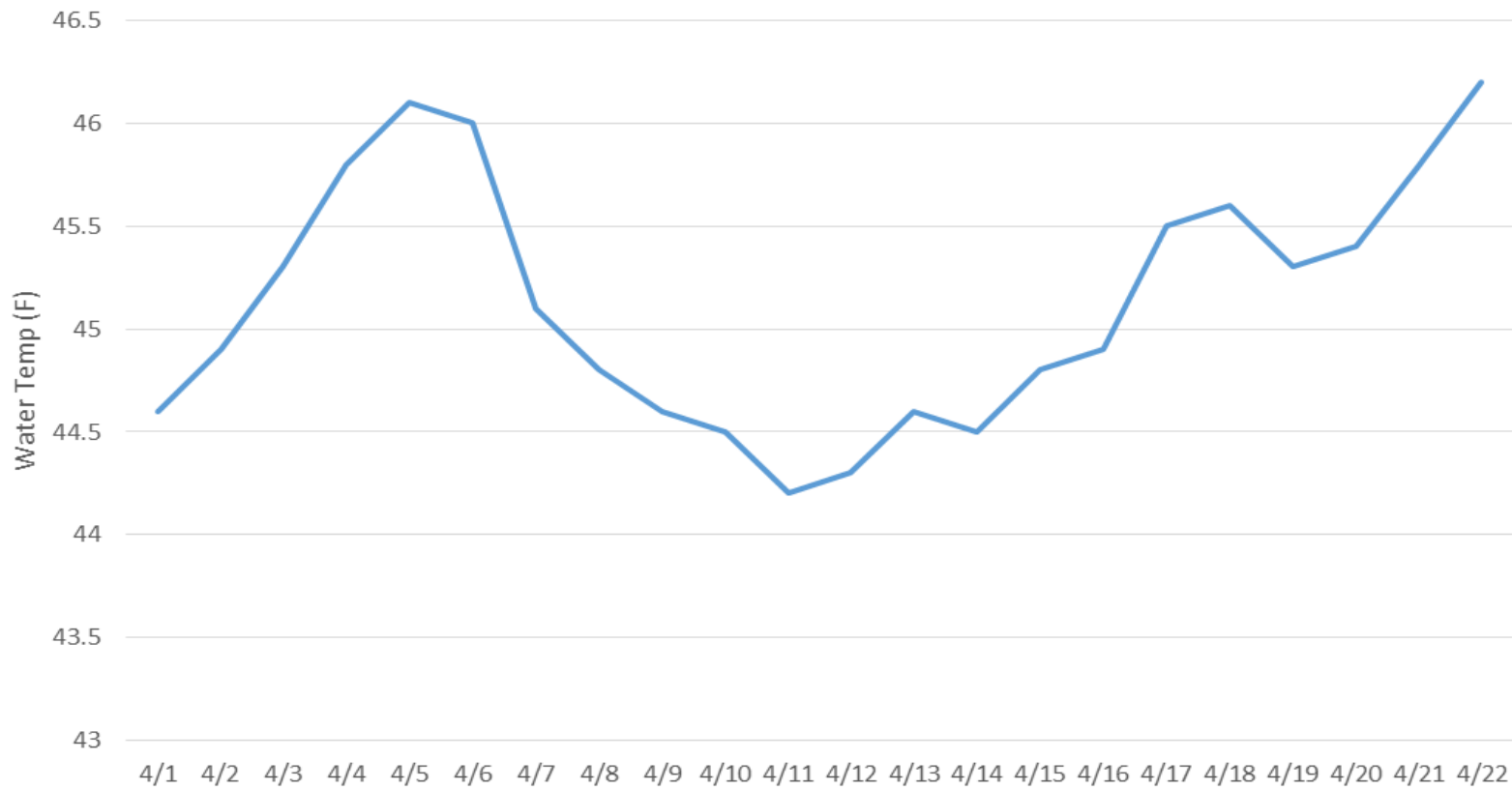
JD STS crane's emergency repairs were all completed in February with the minor glitches/ adjustments continuing. The crane remains in a risky operational condition until it's replaced with a brand new machine. However, the necessary \$ 5 million for its replacement is not yet available.

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

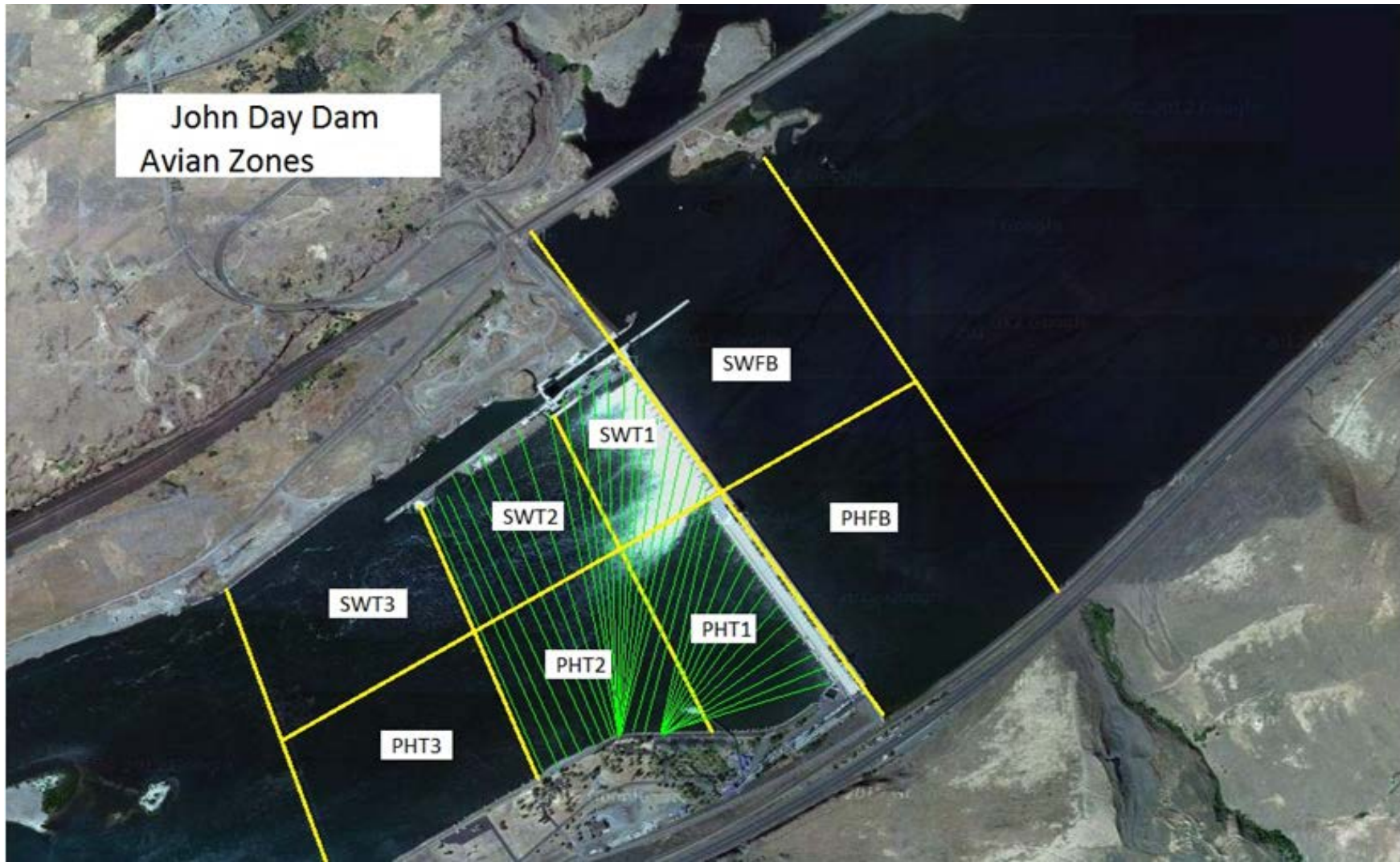
By: pr, mb

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

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

John Day Dam
Avian Zones



John Day Weekly Averages

	Temp:	Secchi:	Fallbacks
Sun	51	4.0	48
Mon	51	4.0	46
Tue	51	4.0	16
Wed	52	3.0	54
Thur	52	3.0	38
Fri	53	3.0	80
Sat	53	3.0	38
AVG:	52	AVG: 3.4	AVG 46
			MAX 80
			MIN 16

	NE1	NE2	S.Ent	SE1	N.Ent	JBS Diff	Bay19
Sun	10.6	10.6	1.3	8.2	1.4	4.6	1.6
Sun	10.5	10.5	1.2	8.6	1.4	4.6	1.8
Mon	9.8	9.8	1.5	8.0	1.6	4.6	1.8
Mon	9.8	9.8	1.4	8.0	1.5	4.8	1.9
Tues	10.2	10.1	1.5	8.2	1.5	4.6	1.8
Tues	10.3	10.3	1.3	8.2	1.5	4.6	1.9
Wed	9.7	9.6	1.4	8.1	1.6	4.5	2.0
Wed	10.1	10.1	1.3	8.4	1.6	4.6	1.7
Thur	9.2	9.1	1.3	8.2	1.6	4.6	1.9
Thur	9.1	9.1	1.4	8.3	1.6	4.5	1.6
Fri	9.9	9.8	1.5	8.0	1.6	4.6	2.0
Fri	9.8	9.9	1.1	8.3	1.5	4.6	1.9
Sat	11.2	11.1	1.3	8.4	1.4	4.6	1.9
Sat	11.6	11.5	1.5	8.4	1.4	4.5	1.8
AVG:	10.1	10.1	1.4	8.2	1.5	4.6	1.8

JDA Bird Counts: 4/30/17 to 5/6/17

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)	
30-Apr	PHFB	7	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	40	42	0	0	102
30-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
30-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	SW3	17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34
Avg/Survey		22		7		0		0		0		0		0		0		41		0		138
1-May	PHFB	0	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	40	0	92
1-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
1-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	SW3	22	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Avg/Survey		21		6		0		0		0		0		0		0		19		20		131
2-May	PHFB	0	0	11	14	0	0	0	14	0	0	0	0	0	0	0	0	39	0	0	35	113
2-May	SWFB	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
2-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	PH2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2-May	PH3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	SW3	9	35	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Avg/Survey		23		30		0		7		0		0		0		0		20		18		194
3-May	PHFB	0	0	0	30	0	0	1	0	0	0	0	0	0	0	0	0	25	13	24	13	106
3-May	SWFB	0	0	4	18	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	26
3-May	PH1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3-May	PH2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3-May	PH3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	SW2	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	4
3-May	SW3	12	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Avg/Survey		31		26		0		1		0		0		1		0		20		20		195

JDA Bird Counts: 4/30/17 to 5/6/17

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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)	
4-May	PHFB	0	0	2	7	0	0	0	1	0	0	0	0	0	0	0	0	21	21	21	21	94
4-May	SWFB	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
4-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SW3	17	6	0	0	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0	31
Avg/Survey		12	11	1	1	0	0	0	0	4	0	21	21							137		
5-May	PHFB	0	0	7	5	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	0	52
5-May	SWFB	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5-May	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-May	SW3	20	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
Avg/Survey		19	10	0	0	0	0	0	0	0	0	10	10							97		
6-May	PHFB	0	0	9	19	0	0	0	1	0	0	0	0	0	0	0	0	28	28	28	28	141
6-May	SWFB	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
6-May	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-May	SW3	29	29	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	59
Avg/Survey		30	18	0	1	0	0	0	1	0	0	28	28							209		
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF	F	NF			
Weekly Total		312	213	1	17	0	0	0	0	9	0	317	232							1101		
Avg/Survey		22	15	0	1	0	0	0	0	1	0	23	17							79		