

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 10/2/2021

Inspection Period: 9/26/2021 thru 10/2/2021



**US Army Corps
of Engineers**
Portland District

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.
Additional and frequent monitoring, of the PLC displays in SMF Fisheries Office, as necessary.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 14			Temperature: 66.4 F	Secchi: 6.0 Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	High setting	High setting is normal				
Count station differential	0	≤ 0.3'					
Entrance differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
SOUTH FISHWAY							
Exit differential	0	≤ 0.5'					
Exit Control weirs	0	Mid setting	Mid setting is normal				
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 (Ft.)	1.6			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.7			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.79			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.1			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.1			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	Next Visual Inspection 9/27-9/30				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	AVG (kcfs)	1.6	Avg %	2.0	
Spill pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

Fisheries Related Operations

Smolt Monitoring Operations:

The Smolt Monitoring Program concluded the 2021 sampling season on 9/15.

Adult Ladder Operations:

North and South fish ladders are operating within criteria.

Project Operations:

Current outages: MU1, MU7, MU8, MU12, MU13-16, MU14, MU15, MU16. Adult attraction flow for the North fish ladder is provided through spill bay #2 open one stop (1.6kcfs) during daylight hours through November 30th

Maintenance:

JD North Fishway's pump 4 has been pulled for maintenance (RTS to be determined).

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

Steady number of cormorants mainly roosting on PHFB towers, or rocks in SW2 and SW3. Gull numbers increasing with high numbers resting on the wing wall in the SWFB and modest numbers foraging in the tailrace mainly PH3 in the morning. Pelican numbers decreasing, few foraging in the tailrace, mostly seen resting on Preacher's Island. Slight increase of grebes in PHFB. (see 'Bird Count' tab for details).

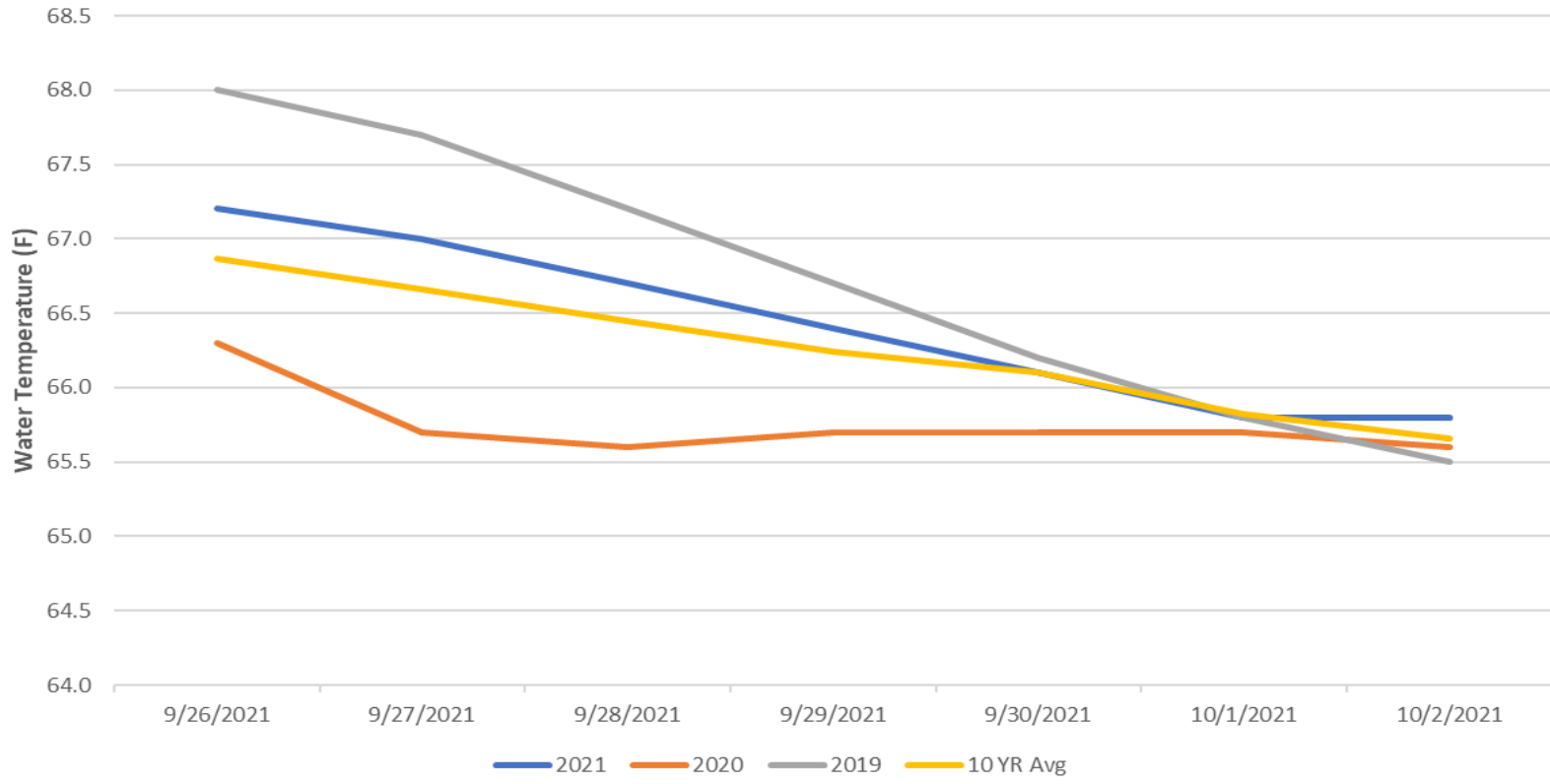
1 of 125 avian lines down, will need to be replaced

Pelicans on Preacher's Island: averaged 8 per day

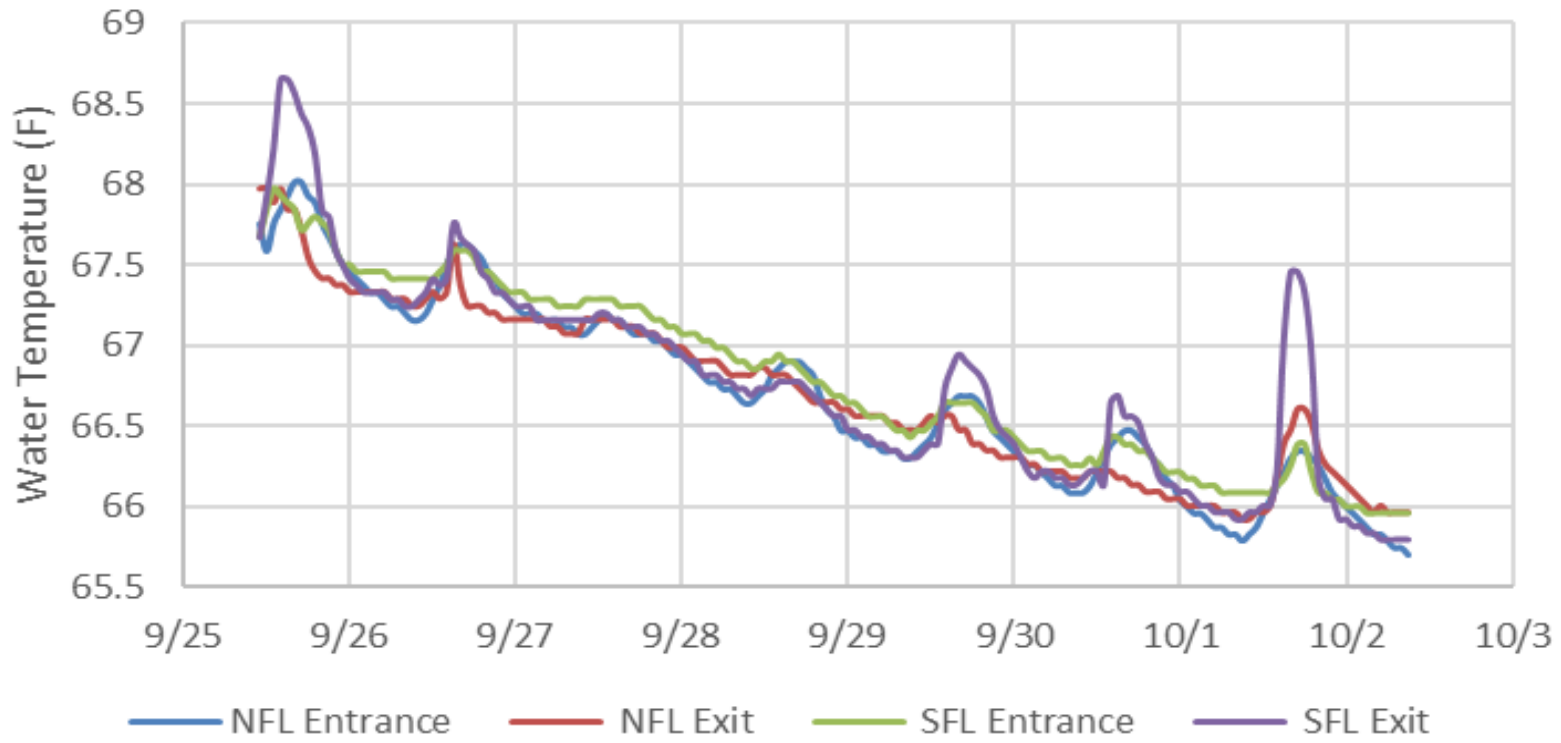
Research:

None

John Day Dam Water Temperatures (F)



JDA Ladder Temperatures (9/26 - 10/2)



JDA Collection Channel Velocity

FPP Criteria: 1.5–4.0 feet per second (2 fps optimum)

Date	Measurement Location	Speed (ft/sec)	SFL Turbine RPMs (1,2,3)	Bay 19 TW (ft)
9/27/2021	Unit 4	2.74	0,68,68	160.0
9/27/2021	Unit 12	2.87	0,68,68	160.0
10/1/2021	Unit 4	2.74	0,68,68	159.3
10/1/2021	Unit 12	2.80	0,68,68	159.3
10/2/2021	Unit 4	2.71	0,68,68	159.2
10/2/2021	Unit 12	2.90	0,68,68	159.2

Average Weekly Velocity (ft/sec)	2.79
----------------------------------	------

JOHN DAY WEEKLY AVERAGES

	NE1 (Ft)	NE2 (Ft)	S.Ent (Ft)	SE1 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Bay19 (Ft)	Spill Vol. (kcfs)	Spill %	# Spillbays
Sunday	8.6	8.6	1.8	8.2	1.0	4.6	2.0	1.6	2.4	1
Sunday	9.2	9.2	1.6	8.8	1.6	4.6	2.0	1.6	2.0	1
Monday	8.7	8.7	1.5	8.3	1.6	4.5	1.5	1.6	2.5	1
Monday	9.4	9.3	1.6	9.2	1.4	4.6	2.0	1.6	1.4	1
Tuesday	10.4	10.3	1.6	8.8	1.5	4.7	1.0	1.6	1.8	1
Tuesday	10.3	10.3	1.4	10.0	1.4	4.7	1.8	1.6	1.7	1
Wednesday	9.0	8.9	1.7	8.3	1.6	5.0	1.7	1.6	2.0	1
Wednesday	9.1	9.1	1.4	8.9	1.7	4.7	1.7	1.6	1.8	1
Thursday	9.2	9.1	1.6	8.8	1.5	4.6	1.8	1.6	1.9	1
Thursday	9.1	9.2	1.6	8.9	1.6	4.5	1.9	1.6	1.9	1
Friday	8.8	8.7	1.9	8.2	1.6	4.7	2.0	1.6	2.3	1
Friday	8.7	8.7	1.7	8.3	1.6	4.6	2.0	1.6	2.3	1
Saturday	8.6	8.5	1.8	8.1	1.7	4.5	2.0	1.6	2.1	1
Saturday	8.5	8.5	1.8	8.3	1.7	4.6	2.0	1.6	2.0	1
AVG:	9.1	9.1	1.6	8.7	1.5	4.6	1.8	1.6	2.0	1.0

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	67.2	6.0	N/A	15
Monday	67.0	6.0	N/A	7
Tuesday	66.7	6.0	N/A	0
Wednesday	66.4	6.0	N/A	0
Thursday	66.1	6.0	N/A	10
Friday	65.8	6.0	N/A	12
Saturday	65.8	6.0	N/A	10
AVG	66.4	6.0	N/A	8

John Day Dam
Avian Zones



JDA Bird Counts: 9/26/21 to 10/2/21

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)	
26-Sep	PHFB	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	42	40	0	0	94
26-Sep	SWFB	0	0	143	241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	384
26-Sep	PH1	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
26-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Sep	PH3	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
26-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Sep	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Sep	SW3	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	27
Avg/Survey		6		192		1		20		0		0		0		0		41		0		259
27-Sep	PHFB	0	0	57	0	0	0	10	3	0	0	0	0	0	0	0	0	43	36	0	0	149
27-Sep	SWFB	0	0	53	178	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	243
27-Sep	PH1	22	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
27-Sep	PH2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
27-Sep	PH3	8	61	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	70
27-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Sep	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Sep	SW3	0	0	3	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	27
Avg/Survey		48		146		1		19		0		0		0		1		46		0		259
28-Sep	PHFB	0	0	0	32	0	0	4	2	0	0	0	0	0	0	0	0	42	37	0	0	117
28-Sep	SWFB	0	0	81	186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	267
28-Sep	PH1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
28-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Sep	PH3	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
28-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Sep	SW2	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
28-Sep	SW3	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
Avg/Survey		17		150		1		13		0		0		0		0		40		0		219
29-Sep	PHFB	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	41	41	0	0	106
29-Sep	SWFB	0	0	328	98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	426
29-Sep	PH1	0	14	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
29-Sep	PH2	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
29-Sep	PH3	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
29-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Sep	SW2	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	12
29-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		19		213		1		18		0		0		0		0		41		0		292

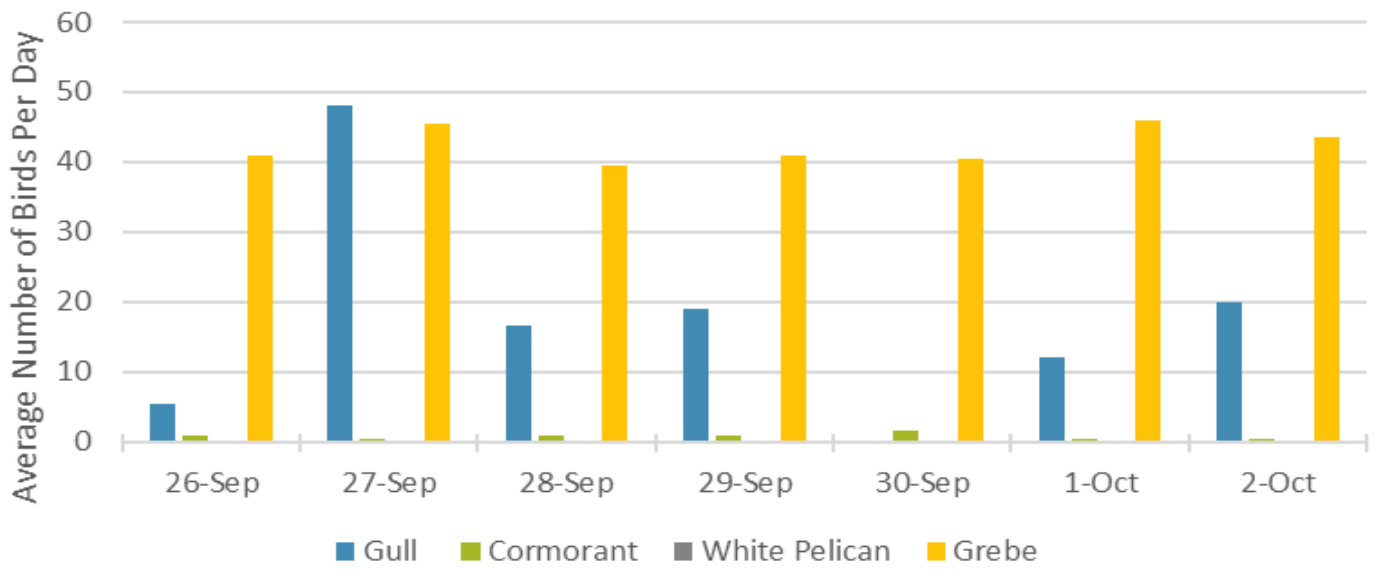
JDA Bird Counts: 9/26/21 to 10/2/21

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-Sep	PHFB	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	41	40	0	0	96
30-Sep	SWFB	0	0	212	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	349
30-Sep	PH1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
30-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Sep	SW1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
30-Sep	SW2	0	0	0	0	0	0	3	12	0	0	0	0	0	0	0	0	0	0	0	0	15
30-Sep	SW3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	15
Avg/Survey		0	0	180	0	2	0	15	0	0	0	0	0	0	2	0	0	41	0	0	0	239
1-Oct	PHFB	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	55	37	0	0	103
1-Oct	SWFB	0	0	101	262	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	363
1-Oct	PH1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1-Oct	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Oct	PH3	3	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
1-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Oct	SW2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1-Oct	SW3	0	0	30	33	0	0	29	31	0	0	0	0	0	0	0	0	0	0	0	0	123
Avg/Survey		12	0	213	0	1	0	37	0	0	0	0	0	0	0	0	0	46	0	0	0	308
2-Oct	PHFB	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	47	40	0	0	100
2-Oct	SWFB	0	0	282	322	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	604
2-Oct	PH1	0	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
2-Oct	PH2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2-Oct	PH3	18	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
2-Oct	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Oct	SW2	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	45
2-Oct	SW3	0	0	0	0	0	0	41	10	0	0	0	0	0	0	12	16	0	0	0	0	79
Avg/Survey		20	0	302	0	1	0	55	0	0	0	0	0	0	14	0	0	44	0	0	0	435

Totals	Gulls		Cormorant		Caspian tern		White Pelican		Grebe		Total
	F	NF	F	NF	F	NF	F	NF	F	NF	
Weekly Total	242	2790	12	349	0	0	0	33	594	0	2010
Avg/Survey	17	199	1	25	0	0	0	2	42	0	287

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

