

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 9/30/2023

Inspection Period: 9/24/2023 thru 9/30/2023



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
P.O. Box 823
Rufus, Oregon 97050
Phone: 541-739-1061

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: 13				Temperature:	67.6 F
						Secchi:	6.0 Ft.	

NORTH FISHWAY

Exit differential	0	≤ 0.5'							
Exit Control weirs	0	High setting							
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							
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.)	1.3					
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.2					
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.55					
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8					
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.2					
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.2					

JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6					
Submersible traveling screens	0	visual inspect	Inspection completed 9/25-9/28						
Turbine trashrack drawdown	0	<1.5', wkly							
Vert barrier screen drawdown	0	<1.2', wkly							
Spill volume	0	per FPP	AVG (kcfs)	1.6	Avg (%)	2.4			
Spill pattern	0	per FPP							
Turbine Unit Priority	0	per FPP							
Turbine 1% Efficiency	0	per FPP							

Fisheries Related Operations

Smolt Monitoring Operations:

Smolt Monitoring Facility concluded the 2023 sampling season on September 15th.

Adult Ladder Operations:

NFL is operating in criteria.

SFL turbine #2 RTS 3/20 @ reduced RPMs (55 RPMs) to prolong the repairs. SFL turbine #3 OOS (Philadelphia gear inspected on 2/22 and recommended FOOS - See 23JDA03) - Funding awarded (RTS-Unknown). FOG's removed

Project Operations:

Current outages: MU1-Annual (ETR: 10/11/23), MU4 (ETR: 11/2/23), MU7 (ETR: 7/31/28), MU10 (ETR: 11/15/23), MU15 (ETR: 11/30/23)

Spillbay Outages: #1-missing brake/motor (ETR Unknown), #6 and #10-operates in manual/local mode only (ETR: Unknown)

From Aug. 15 - Nov. 30, spillbay #2 will be open 1-stop (approximately 1.6 kcfs), during daylight hours, for NFL adult fish attraction.

Weekly Average Tailwater TDG: 99.48

Maintenance:

NFL AWS pump #4 is OOS with an unknown RTS date (see 21JDA02). NFL AWS pump #2 has a failed RTD sensor that keeps it from reading an accurate temperature on the lower bearing (occurred 4/22/23). Therefore, there is no overheat fail safe and it is being run as a last on first off pump (the pump will need to be unstacked to repair the sensor).

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Decrease in pelican foraging within the tailrace this week (average ~1/inspection), foraging gull numbers have increased slightly this week (~24/inspection), foraging grebes increased slightly this week (average ~11/inspection), and foraging cormorants (average ~1/inspection), observed this week.

There are ~35 pelicans hanging around Preacher's Island

20 of 125 avian lines down

Research:

Four Peaks started ladder counts on 3/1/23 and will be performing year-round counts for 2023 (Day video 11/1/23 - 2/29/24)

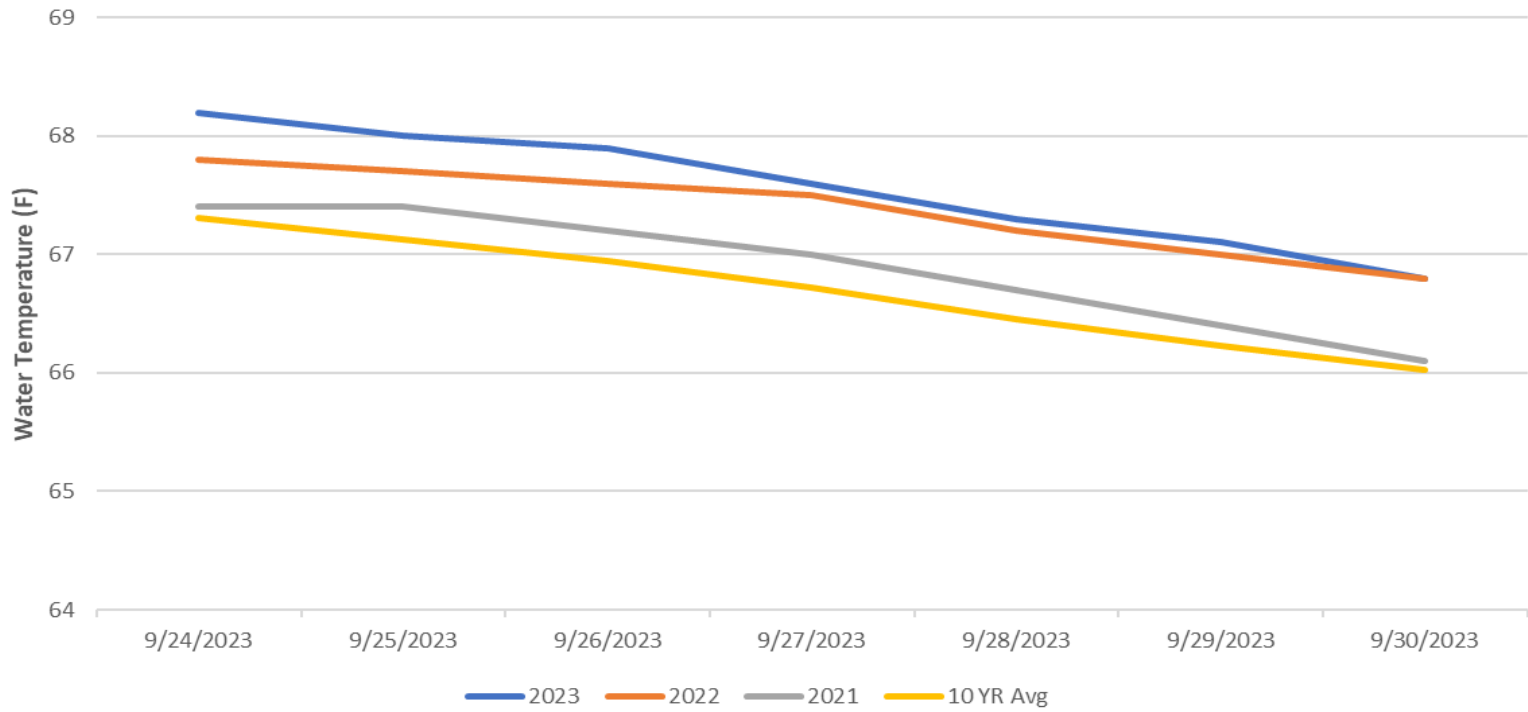
PSMFC smolt condition monitoring ended 9/15/23.

USDA hazing started on 04/16/23 and ended 07/31/23

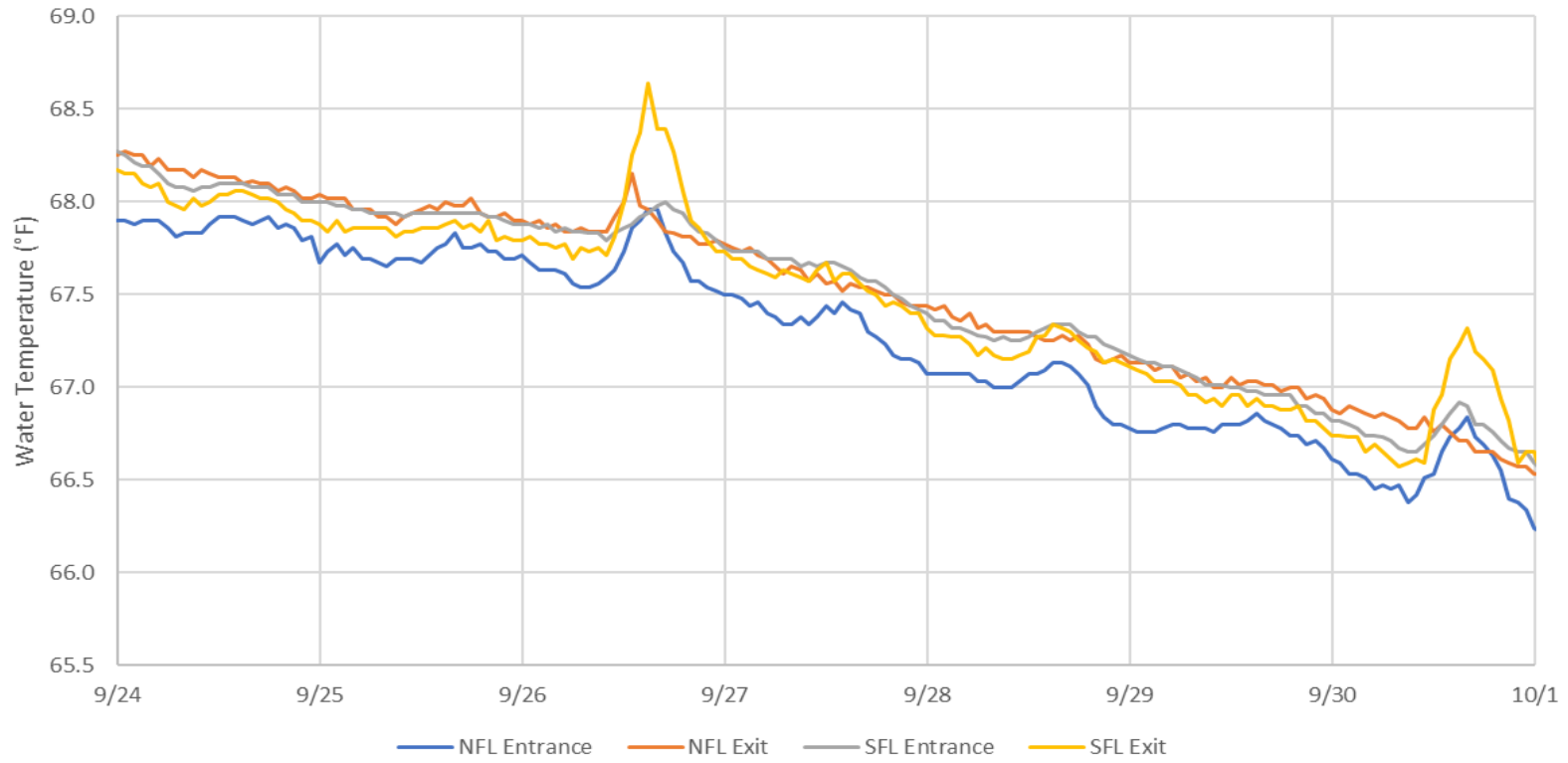
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation ended on 9/6/23.

John Day Dam Water Temperature (F)



JDA Ladder Temperatures



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)
9/25/2023	Unit 4	2.57	55,55,0	159.5
9/25/2023	Unit 12	2.54	55,55,0	159.5
9/28/2023	Unit 4	2.57	55,55,0	159.6
9/28/2023	Unit 12	2.57	55,55,0	159.6
9/30/2023	Unit 4	2.57	55,55,0	159.4
9/30/2023	Unit 12	2.50	55,55,0	159.4

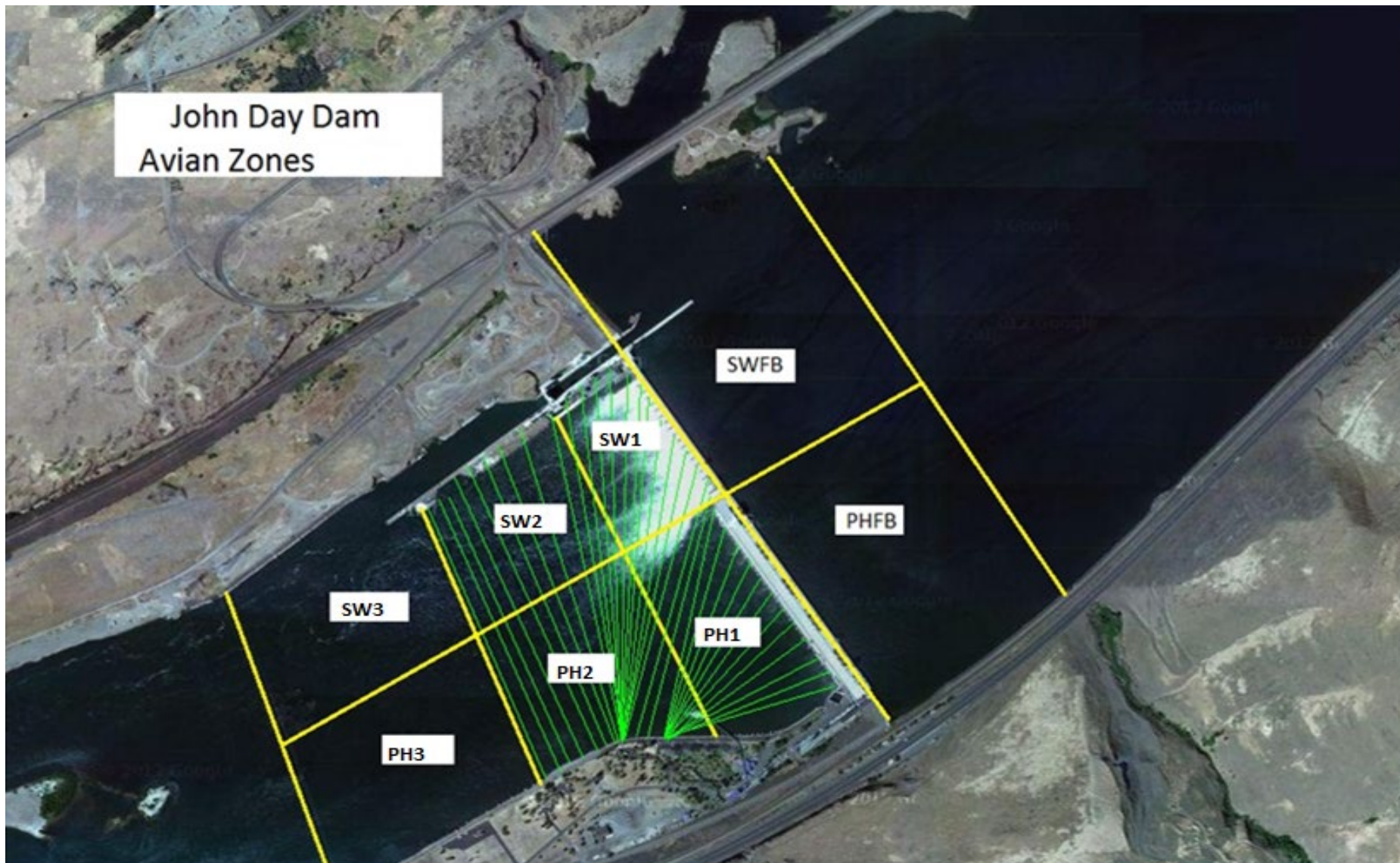
Average Weekly Velocity (ft/sec)	2.55
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JOHN DAY WEEKLY AVERAGES

	South Fish Ladder					NFL	JBS	Spill		
	SE1 (Ft)	S.Ent (Ft)	NE1 (Ft)	NE2 (Ft)	Bay19 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Spill Vol. (kcfs)	Spill (%)	# Spillbays
Sunday	8.4	1.1	9.4	9.4	1.8	1.4	4.6	1.6	2.4	1.0
Sunday	8.2	1.3	9.3	9.3	1.8	1.4	4.6	1.6	2.3	1.0
Monday	8.2	1.4	9.1	9.1	1.8	1.5	4.6	1.6	2.4	1.0
Monday	8.2	1.2	9.1	9.1	1.8	1.7	4.6	1.6	2.4	1.0
Tuesday	8.1	1.4	9.1	9.1	1.7	1.6	4.6	1.6	2.4	1.0
Tuesday								1.6	2.4	1.0
Wednesday	8.1	1.4	9.6	9.6	1.8	1.5	4.6	1.6	2.4	1.0
Wednesday	8.0	1.4	9.1	9.1	1.6	1.6	4.6	1.6	2.0	1.0
Thursday	8.0	1.4	9.2	9.2	1.7	1.6	4.6	1.6	2.3	1.0
Thursday	8.1	1.4	9.2	9.2	1.8	1.7	4.6	1.6	2.3	1.0
Friday	8.3	1.2	9.5	9.5	1.8	1.5	4.6	1.6	2.0	1.0
Friday	8.3	1.2	9.1	9.1	1.8	1.5	4.6	1.6	2.6	1.0
Saturday	8.2	1.4	9.0	9.0	1.8	1.5	4.6	1.6	2.5	1.0
Saturday	8.1	1.5	9.1	9.0	1.8	1.5	4.6	1.6	2.7	1.0
AVG:	8.2	1.3	9.2	9.2	1.8	1.5	4.6	1.6	2.4	1.0

	Temp (F)	Secchi (Ft)	Notes
Sunday	68.2	6.0	
Monday	68.0	6.0	
Tuesday	67.9	6.0	
Wednesday	67.6	6.0	
Thursday	67.3	6.0	
Friday	67.1	6.0	
Saturday	66.8	6.0	
AVG	67.6	6.0	

John Day Dam
Avian Zones



JDA Bird Counts: 9/24/23 to 9/30/23

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)	
24-Sep	PHFB	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	10	9	0	0	36
24-Sep	SWFB	0	0	150	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	326
24-Sep	PH1	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
24-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Sep	SW2	0	0	0	0	0	0	17	45	0	0	0	0	0	0	0	0	0	0	0	0	62
24-Sep	SW3	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Avg/Survey		5		163		0		45		0		0		0		0		10		0		222
25-Sep	PHFB	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	37	0	14	0	0	61
25-Sep	SWFB	0	0	102	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252
25-Sep	PH1	50	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51
25-Sep	PH2	10	5	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	17
25-Sep	PH3	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
25-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Sep	SW2	0	0	0	0	0	0	20	30	0	0	0	0	0	0	0	0	0	0	0	0	50
25-Sep	SW3	0	0	1	5	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	0	36
Avg/Survey		70		129		1		45		0		0		0		20		7		0		271
26-Sep	PHFB	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	11	0	0	0	16
26-Sep	SWFB	0	0	131	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	133
26-Sep	PH1	18	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
26-Sep	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
26-Sep	PH3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
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	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15
26-Sep	SW3	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Avg/Survey		14		66		3		18		0		0		0		0		6		0		105
27-Sep	PHFB	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	29	0	0	32
27-Sep	SWFB	0	0	112	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215
27-Sep	PH1	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
27-Sep	PH2	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
27-Sep	PH3	6	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	9
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	23	5	0	0	0	0	0	0	0	0	0	0	0	0	28
27-Sep	SW3	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Avg/Survey		22		108		0		19		0		0		1		0		15		0		164

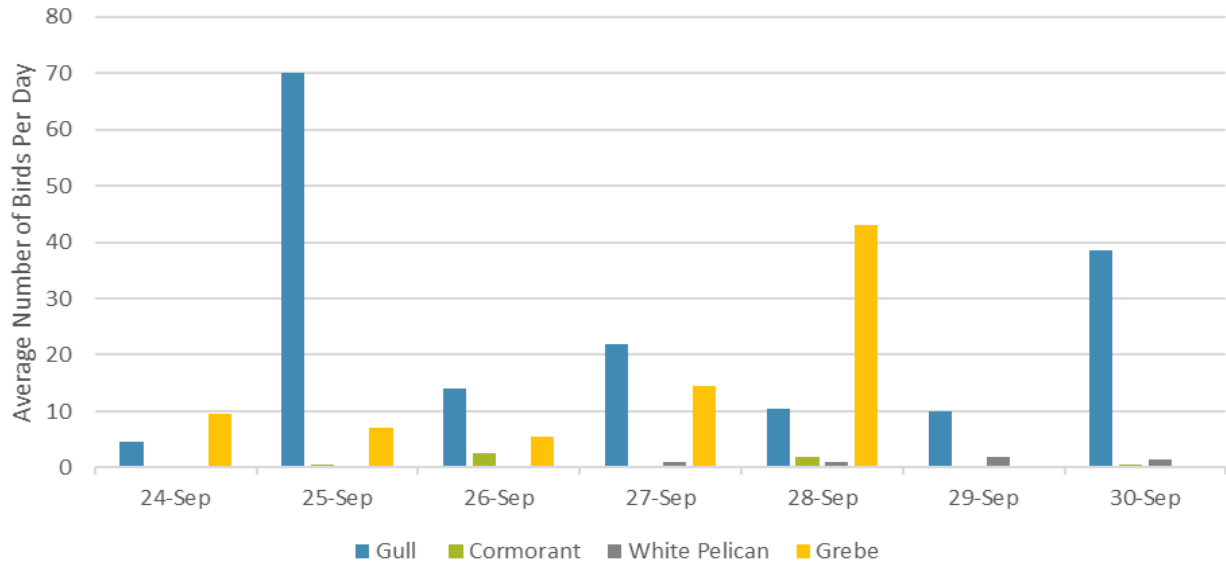
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Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
28-Sep	PHFB	0	0	0	5	0	0	14	0	0	0	0	0	0	0	0	42	42	0	0	103	
28-Sep	SWFB	0	0	89	123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	212	
28-Sep	PH1	7	5	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	16	
28-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
28-Sep	PH3	3	6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	11	
28-Sep	SW1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
28-Sep	SW2	0	0	0	0	1	0	33	31	0	0	0	0	0	0	0	0	0	0	0	65	
28-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Avg/Survey		11		109		2		39		0		0		1		0		43		0	204	
29-Sep	PHFB	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	30	
29-Sep	SWFB	0	0	150	150	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	302	
29-Sep	PH1	10	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	16	
29-Sep	PH2	5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	11	
29-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
29-Sep	SW1	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	11	40	0	0	0	0	0	0	0	0	0	0	0	51	
29-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Avg/Survey		10		150		0		42		0		0		2		2		0		0	205	
30-Sep	PHFB	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	25	37	
30-Sep	SWFB	0	0	150	212	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	362	
30-Sep	PH1	30	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	
30-Sep	PH2	5	16	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	26	
30-Sep	PH3	5	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	9	
30-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30-Sep	SW2	0	0	0	0	0	0	35	40	0	0	0	0	0	0	1	0	0	0	0	76	
30-Sep	SW3	10	0	10	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	
Avg/Survey		39		196		1		44		0		0		2		3		0		13	296	

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					
Weekly Total	339	1839	11	500	0	0	11	48	159	25	2932										
Avg/Survey	24	131	1	36	0	0	1	3	11	2	209										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

