

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 4/15/2023

Inspection Period: 4/9/2023 thru 4/15/2023



**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:	45.8 F
						Secchi:	4.9 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.)	1.2					
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.1					
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.68					
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.6					
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.0					
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.6					

JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6					
Submersible traveling screens	0	visual inspect							
Turbine trashrack drawdown	0	<1.5', wkly							
Vert barrier screen drawdown	0	<1.2', wkly							
Spill volume	0	per FPP	Avg (kcfs)	53.0	Avg (%)	39.7			
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 started the 2023 sampling season on April 3rd for condition monitoring only. From April 3 - June 15 condition sampling will occur 5 days a week (Monday-Friday) from approximately 0700-1300 or until the target of 100 fish of the predominant species has been reached. From June 16 - September 15 condition sampling will occur 3 days a week (Monday, Wednesday, Friday) from approximately 0700-1300 or until the target of 100 fish of the predominant species has been reached. High water temperature protocol goes into effect when water temperatures exceed 70F.

Adult Ladder Operations:

NFL in criteria

SFL turbine 2 RTS 3/20 @ reduced RPMs (55 RPMs) to prolong the repairs

SFL turbine 3 still OOS (Philadelphia gear inspected on 2/22 and recommended FOOS - See 23JDA03) - Awaiting Funding

FOG's removed

Project Operations:

Current outages: MU4 (ETR: 11/2/23), MU5 (ETR: 4/27/23) MU7 (ETR: 7/31/28), MU8 (ETR: 1/10/24), MU10 (ETR: 11/15/23), MU11 (ETR 4/18/23), MU13 (ETR: 6/14/23)

Weekly Average Tailwater TDG: 114.3

Maintenance:

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

Grebe numbers are increasing in the forebay, gull numbers are fewer than 10, and cormorant numbers are decreasing.

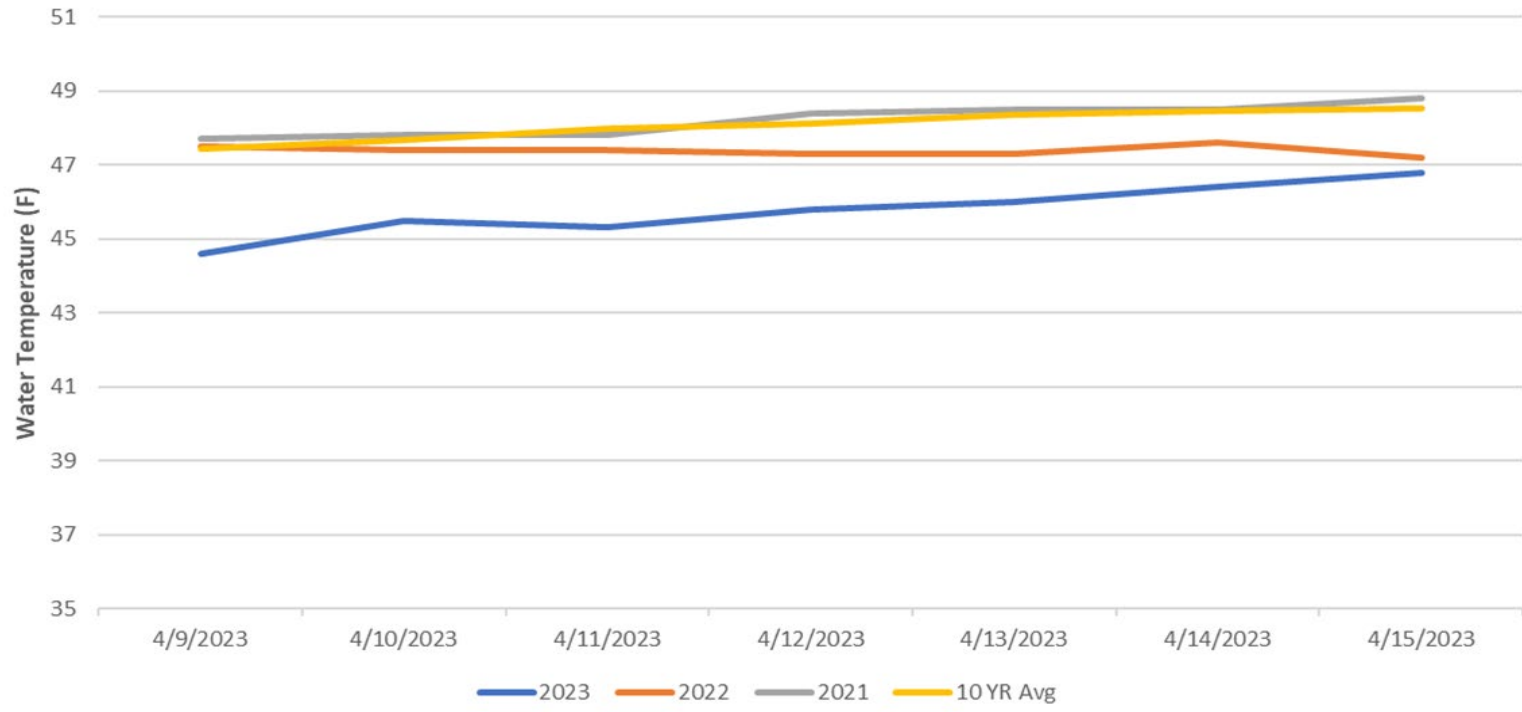
There are approximately 3 pelicans hanging around Preacher's Island with very few foraging observations in JDA bird counting zones.

11 of 125 avian lines down, in contracting phase for replacement of 9 lines from powerhouse roof.

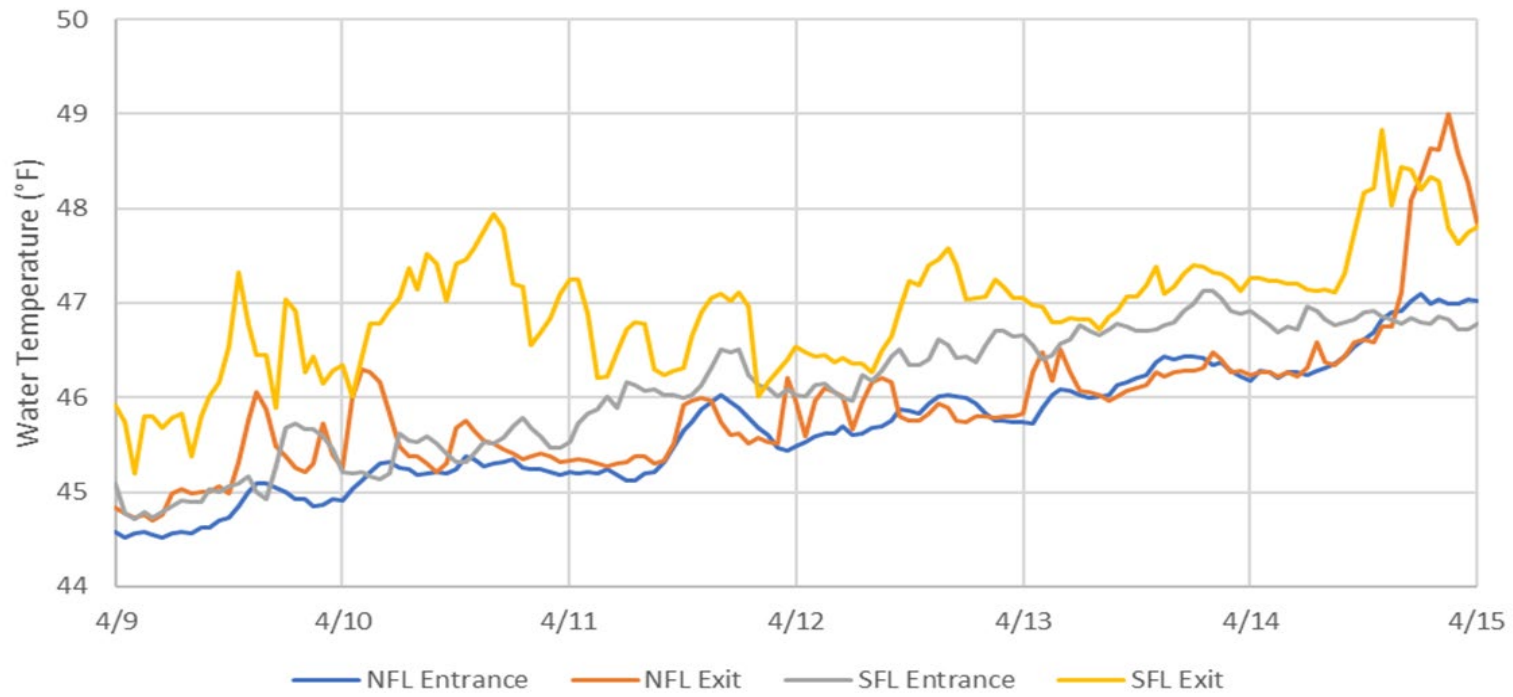
Research:

Preperations for the 2023 Research Season are underway - No new research is scheduled at this time

John Day Dam Water Temperature (F)



John Day 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)
4/10/2023	Unit 4	2.58	55,55,0	159.9
4/10/2023	Unit 12	2.60	55,55,0	159.9
4/12/2023	Unit 4	2.79	55,55,0	160.4
4/12/2023	Unit 12	2.79	55,55,0	160.4
4/15/2023	Unit 4	2.66	55,55,0	159.9
4/15/2023	Unit 12	2.64	55,55,0	159.9

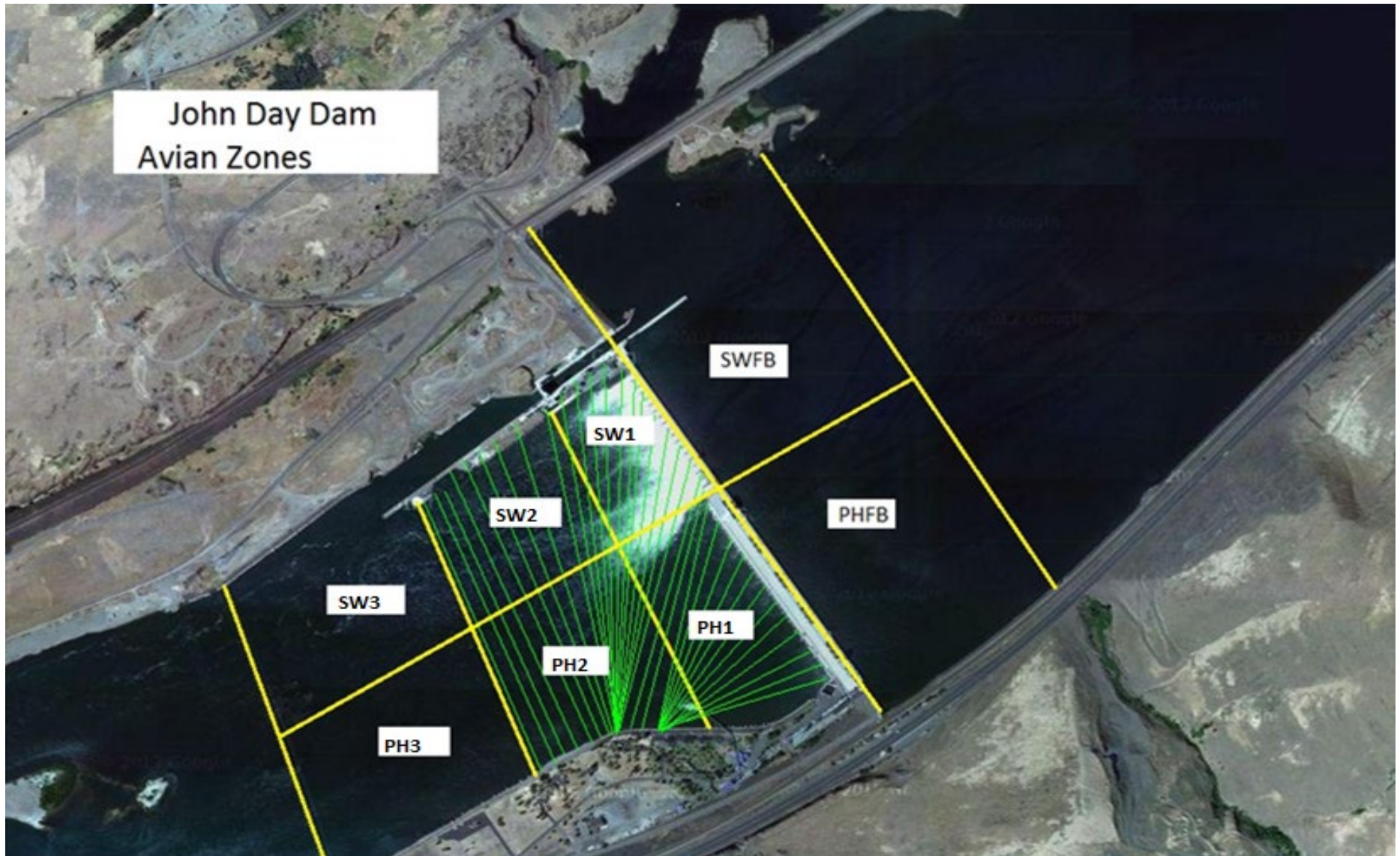
Average Weekly Velocity (ft/sec)	2.68
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JOHN DAY WEEKLY AVERAGES

	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	8.9	1.5	8.8	9.4	1.7	1.5	4.6	0.0	0.0	0.0
Sunday	8.8	1.3	8.7	9.3	1.7	1.6	4.5	0.0	0.0	0.0
Monday	9.0	1.3	8.8	9.5	1.9	1.7	4.6	62.2	53.8	16.0
Monday	9.2	1.1	8.9	9.6	1.7	1.7	4.6	61.9	54.0	19.0
Tuesday	8.4	1.3	8.1	8.8	1.8	1.7	4.5	77.9	58.8	18.0
Tuesday	8.9	1.3	8.7	9.3	1.7	1.6	4.5	77.9	59.7	18.0
Wednesday	9.3	1.2	9.1	9.8	1.7	1.5	4.7	56.0	32.1	18.0
Wednesday	9.5	1.3	9.5	10.2	1.5	1.4	4.7	54.0	32.0	18.0
Thursday	8.8	1.2	9.0	9.6	1.3	1.4	4.6	51.0	31.9	18.0
Thursday	9.5	1.2	9.7	10.3	1.3	1.4	4.6	109.0	74.0	18.0
Friday	9.2	1.2	9.5	10.1	1.3	1.5	4.7	47.2	31.9	16.0
Friday	8.8	1.1	9.0	9.6	1.3	1.8	4.8	48.7	33.2	18.0
Saturday	9.3	1.2	8.9	9.6	1.7	1.4	4.5	45.0	31.3	16.0
Saturday	9.4	1.2	9.0	9.7	1.7	1.3	4.4	50.7	62.6	16.0
AVG:	9.1	1.2	9.0	9.6	1.6	1.5	4.6	53.0	39.7	14.9

	Temp (F)	Secchi (Ft)	Notes
Sunday	44.6	6.0	
Monday	45.5	6.0	
Tuesday	45.3	6.0	
Wednesday	45.8	4.0	
Thursday	46.0	4.5	
Friday	46.4	4.0	
Saturday	46.8	4.0	
AVG	45.8	4.9	

John Day Dam
Avian Zones



JDA Bird Counts: 4/9/23 to 4/15/23

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)	
9-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
9-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Apr	SW2	0	0	0	0	0	0	10	16	0	0	0	0	0	0	0	0	0	0	0	0	26
9-Apr	SW3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Avg/Survey		0		1		0		13		0		0		0		0		1		0		15
10-Apr	PHFB	0	0	0	0	0	0	6	10	0	0	0	0	0	0	0	0	2	0	0	0	18
10-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Apr	SW3	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	5
Avg/Survey		0		0		0		10		0		0		0		1		1		0		12
11-Apr	PHFB	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	5	5	0	0	0	17
11-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-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		4		0		0		0		0		5		0		9
12-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	9	0	0	0	22
12-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-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		0		0		0		0		11		0		11

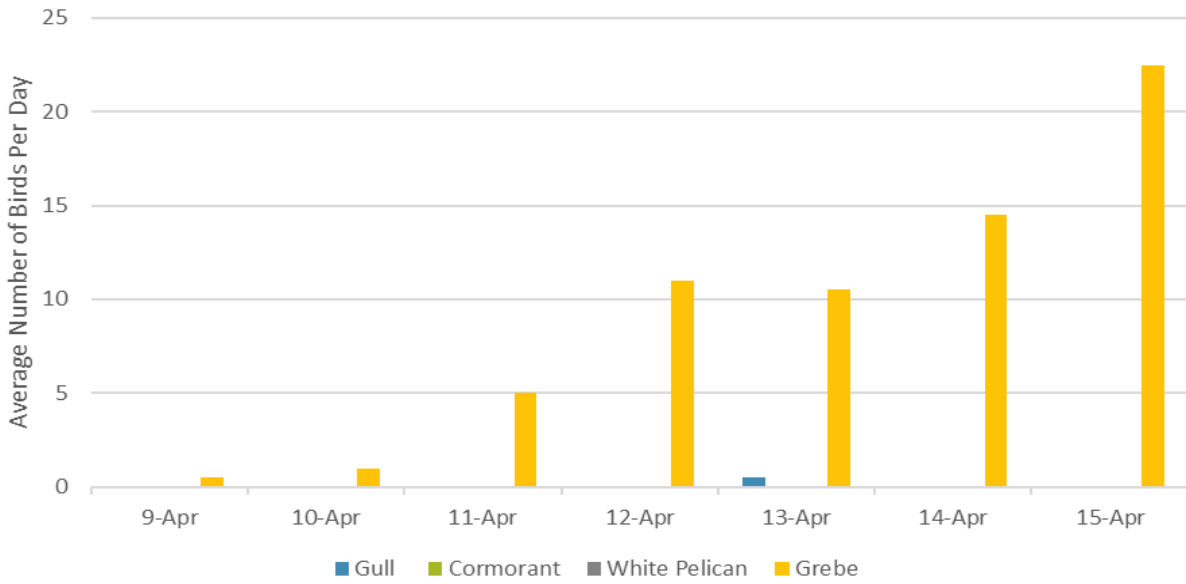
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Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total	
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)		
13-Apr	PHFB	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11	10	0	0	22
13-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Apr	PH1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		1		0		0		1		0		0		0		0		11		0		12	
14-Apr	PHFB	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	19	10	0	0	35	
14-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Apr	SW3	0	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		3		0		0		0		0		15		0		18	
15-Apr	PHFB	0	0	0	0	0	0	4	2	0	0	0	0	0	0	0	25	20	0	0	51		
15-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Apr	SW3	0	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		3		0		0		0		0		23		0		26	

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	1	2	0	66	0	0	0	0	1	130	0	200									
Avg/Survey	0.1	0.1	0.0	4.7	0.0	0.0	0.0	0.1	9.3	0.0	14										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

