

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 4/22/2023

Inspection Period: 4/16/2023 thru 4/22/2023



**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: 47.5 F	Secchi: 4.1 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.)	8.9			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.63			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.6			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	8.7			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.3			
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)	60.7	Avg (%)	44.2	
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)

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

Weekly Average Tailwater TDG: 115.0

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.

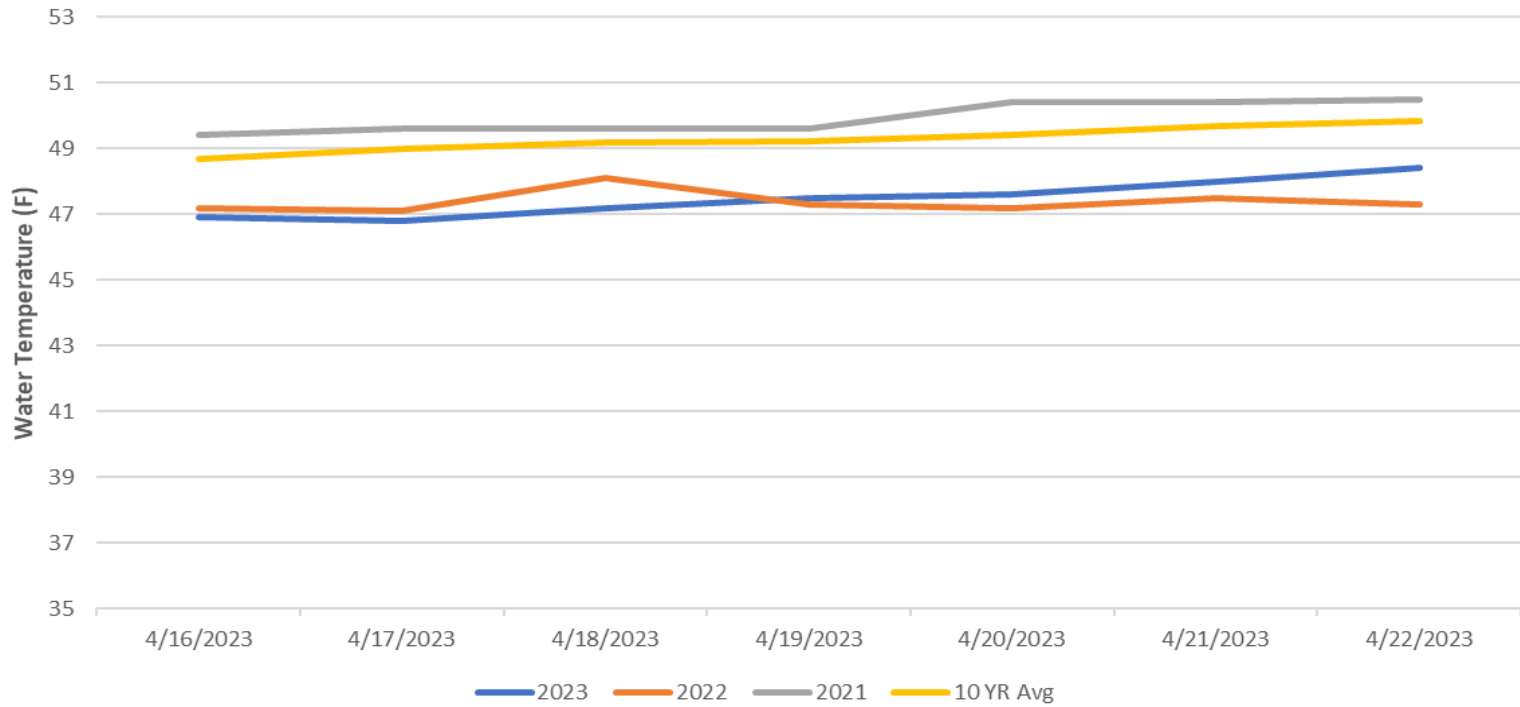
There are approximately 3 pelicans hanging around Preacher's Island with very few foraging observations in JDA bird counting zones.

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

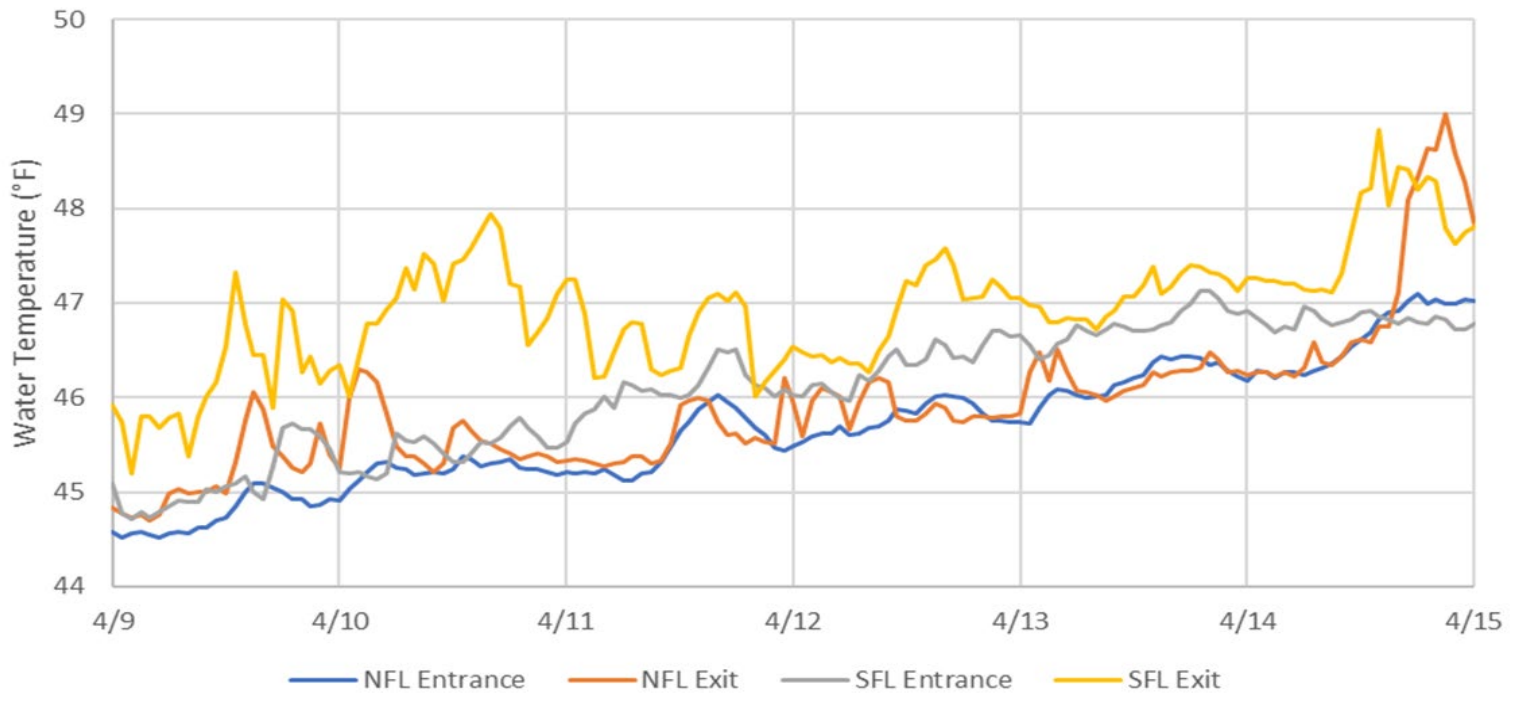
Research:

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)
4/17/2023	Unit 4	2.62	55,55,0	160.0
4/17/2023	Unit 12	2.59	55,55,0	160.0
4/22/2023	Unit 4	2.67	55,55,0	159.6
4/22/2023	Unit 12	2.64	55,55,0	159.6

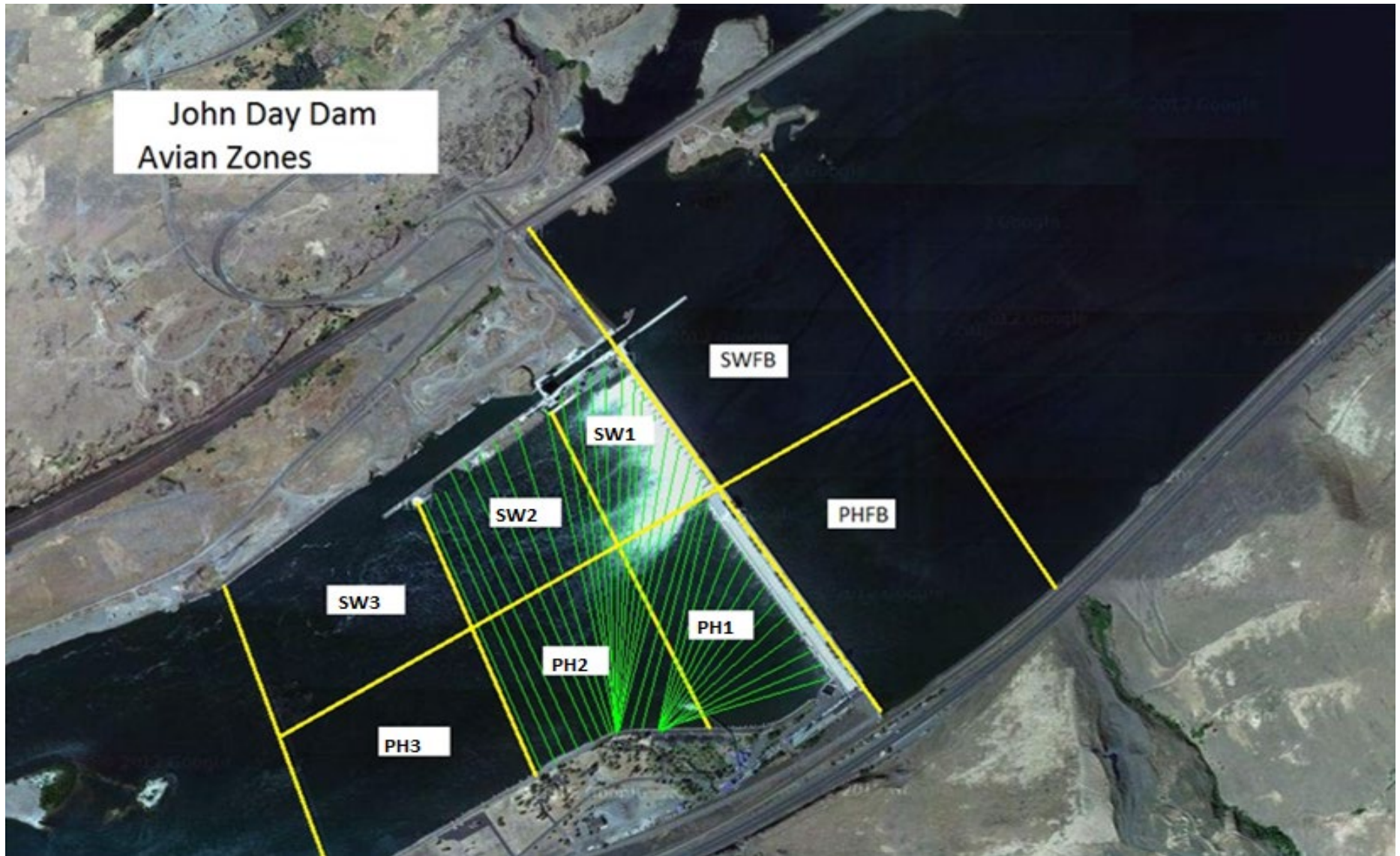
Average Weekly Velocity (ft/sec)	2.63
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JOHN DAY WEEKLY AVERAGES

	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	9.1	1.2	8.8	9.4	1.8	1.3	4.7	41.8	32.2	14.0
Sunday	8.9	1.7	8.6	9.3	1.2	1.6	4.5	41.9	32.1	15.0
Monday	9.6	1.0	9.6	10.3	1.2	1.4	4.6	42.0	31.7	15.0
Monday	8.9	1.1	8.5	9.1	1.7	1.8	4.6	90.0	63.9	18.0
Tuesday	9.3	1.1	9.1	9.7	1.7	1.4	4.6	45.0	31.9	16.0
Tuesday	9.0	1.1	8.4	9.1	1.8	1.6	4.1	90.0	63.6	17.0
Wednesday	9.0	1.2	8.6	9.3	1.9	1.5	4.7	43.1	32.0	15.0
Wednesday	8.3	1.3	8.0	8.7	1.8	1.8	4.6	84.2	61.6	18.0
Thursday	8.8	1.2	9.0	9.7	1.3	1.6	4.6	43.3	31.3	15.0
Thursday	9.0	1.2	9.2	9.8	1.4	1.4	4.6	68.8	50.7	18.0
Friday	8.2	1.3	8.3	9.0	1.4	1.3	4.6	43.2	31.5	16.0
Friday	8.2	1.3	8.4	9.1	1.5	1.6	4.5	84.1	62.2	19.0
Saturday	9.0	1.1	8.6	9.2	1.8	1.4	4.7	42.9	31.2	16.0
Saturday	9.0	1.1	8.5	9.1	1.7	1.9	4.8	89.0	63.3	19.0
AVG:	8.9	1.2	8.7	9.3	1.6	1.5	4.6	60.7	44.2	16.5

	Temp (F)	Secchi (Ft)	Notes
Sunday	46.9	4.0	
Monday	46.8	4.0	
Tuesday	47.2	4.0	
Wednesday	47.5	4.0	
Thursday	47.6	4.5	
Friday	48.0	4.0	
Saturday	48.4	4.0	
AVG	47.5	4.1	

John Day Dam
Avian Zones



JDA Bird Counts: 4/16/23 to 4/22/23

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

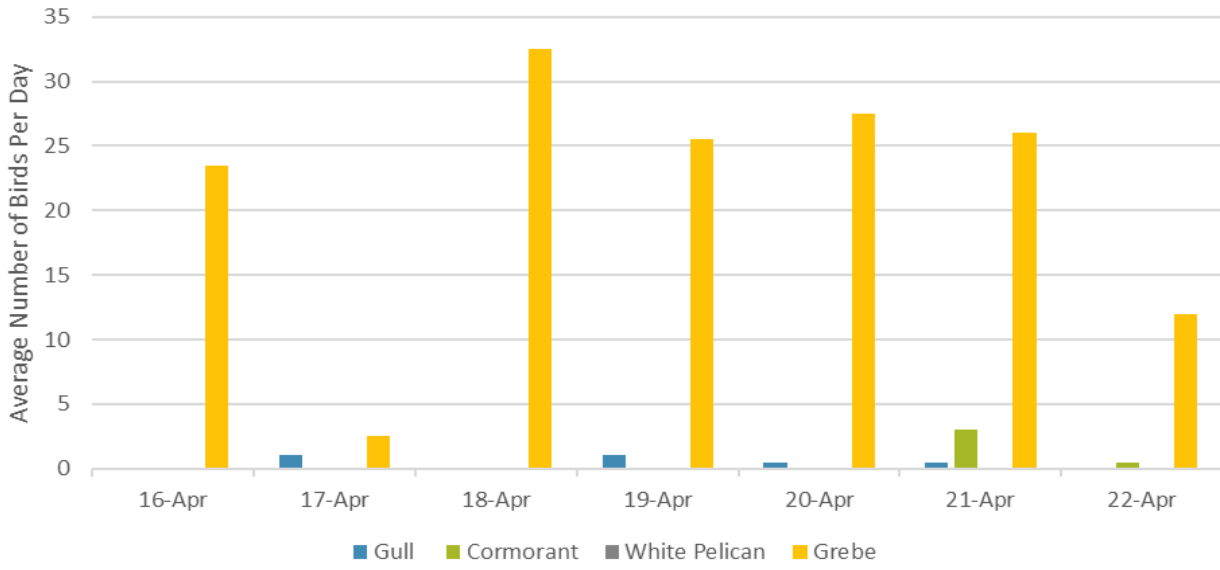
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
16-Apr	PHFB	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	22	25	0	0	53
16-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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		3		0		0		0		0		24		0		27
17-Apr	PHFB	0	1	0	0	0	0	8	1	0	0	0	0	0	0	0	0	0	5	0	0	15
17-Apr	SWFB	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	SW1	0	0	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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17-Apr	SW3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg/Survey		1		1		0		5		0		0		0		0		3		0		9
18-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	32	0	0	65	
18-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-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		33		0		33
19-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	19	0	0	51	
19-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Apr	PH2	0	0	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	0	0
19-Apr	SW1	0	0	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	0	0
19-Apr	SW3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Avg/Survey		1		0		0		0		0		0		0		0		26		0		27

JDA Bird Counts: 4/16/23 to 4/22/23

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)		
20-Apr	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	28	27	0	0	56	
20-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Apr	PH2	0	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	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	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	0
20-Apr	SW3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg/Survey		1		1		0		0		0		0		0		0		28		0		29	
21-Apr	PHFB	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	27	25	0	0	59	
21-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
21-Apr	PH2	0	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	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	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	0
21-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		3		1		0		0		0		0		26		0		31	
22-Apr	PHFB	0	0	0	0	0	1	2	3	0	0	0	0	0	0	0	0	21	3	0	0	30	
22-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Apr	PH1	0	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	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	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	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	0
22-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		1		3		0		0		0		0		12		0		15	
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total	
		F		NF		F		NF		F		NF		F		NF		F		NF			
Weekly Total		6		2		7		22		0		0		0		0		299		0		336	
Avg/Survey		0.4		0.1		0.5		1.6		0.0		0.0		0.0		0.0		21.4		0.0		24	

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

