

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 4/20/2024

Inspection Period: 4/14/2024 thru 4/20/2024



**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: 14			Temperature: 50.7 F	Secchi: 5.6 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.)	8.1			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.26			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
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		next inspection 4/22-4/25				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	70.6	Avg (%)	40.3	
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 2024 sampling season on April 1st for condition monitoring only. From April 1 - 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 is operating in criteria.

SFL turbine #3 RTS 02/29/24, FOG's removed. Operating 2 SFL Turbines @ reduced RPMS (SFP-2: 55 RPM & SFP-3: 60 RPM).

Project Operations:

Spring Spill began April 10

Current outages: MU3 (ETR:5/9/24), MU4 (ETR:4/25/24), MU7 (ETR: 07/31/28), MU10 (ETR: 11/14/24), MU13 (ETR: 11/14/24) .

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

Weekly Average Tailwater TDG: 116.5

Maintenance:

NFL AWS pump #1 OOS, due to SKF (lubrication system) fault (ETR:4/22/24) and #4 is OOS, with an unkown 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 (occured 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). The repair date is unknown.

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Very low foraging gull numbers (~1/inspection), increase in foraging grebes (~39/inspection) , and no foraging cormorants.

There are ≤12 pelicans hanging around Preacher's Island and occasionally feeding in Powerhouse Zone 2 and 3.

7 of 125 avian lines are down.

USDA started boat hazing on 04/18/24.

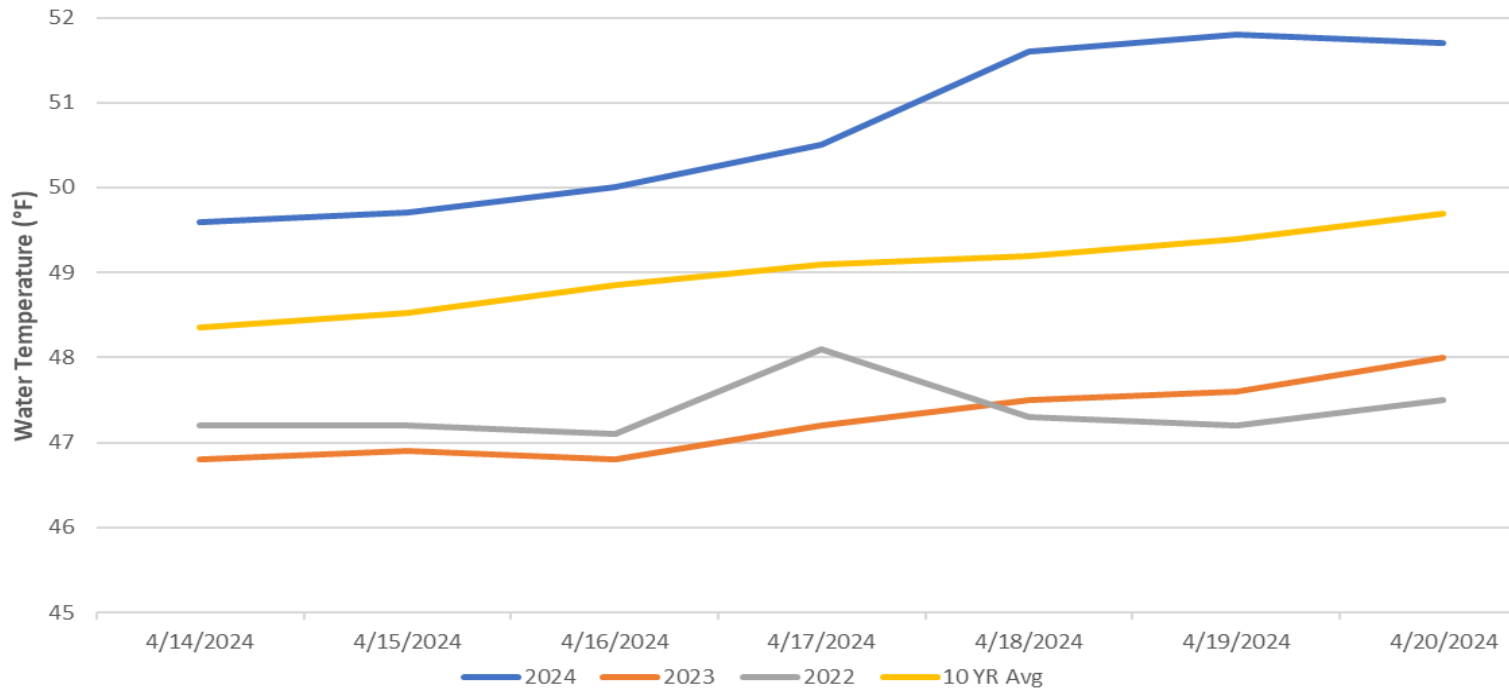
Research:

Four Peaks started ladder counts on 4/1/24.

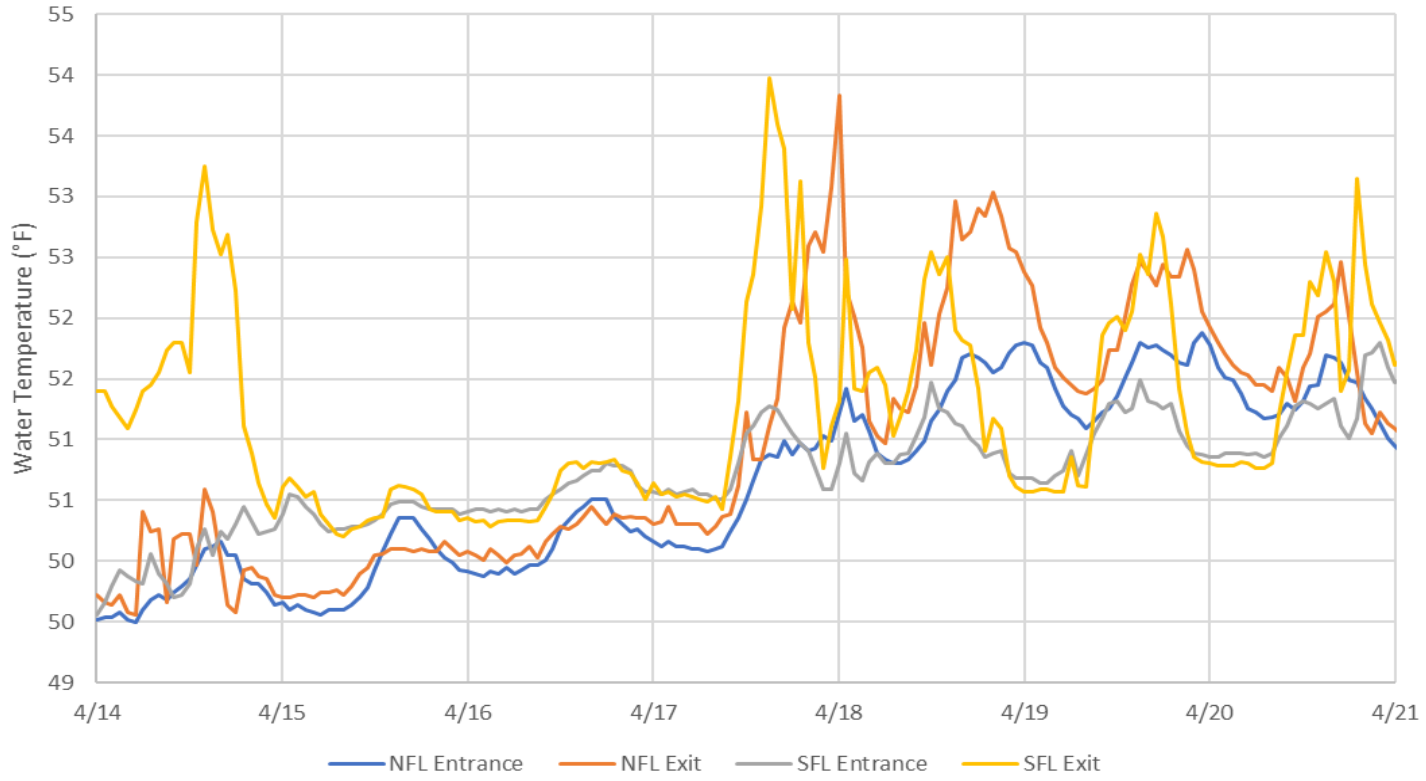
PNNL juvenile lamprey passage behavior and survival study is ongoing.

Research preparation/paperwork for FY'24 is ongoing.

John Day Water Temperatures



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)
4/15/2024	Unit 4	2.22	55,0,60	161.2
4/15/2024	Unit 12	2.18	55,0,60	161.2
4/17/2024	Unit 4	2.50	0,55,60	160.5
4/17/2024	Unit 12	2.30	0,55,60	160.5
4/20/2024	Unit 4	2.20	0,55,60	160.5
4/20/2024	Unit 12	2.18	0,55,60	160.5

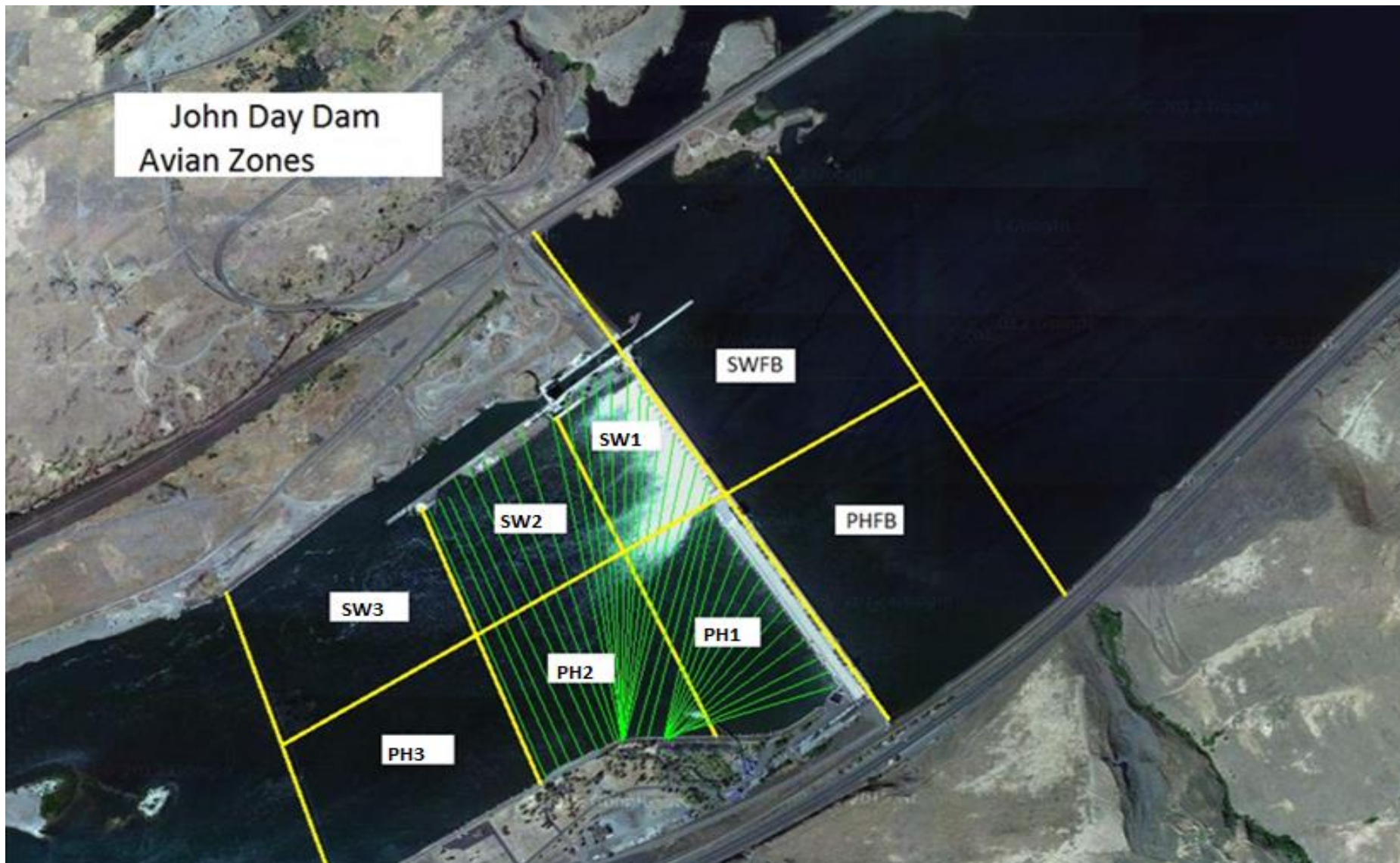
Average Weekly Velocity (ft/sec)	2.26
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JOHN DAY WEEKLY AVERAGES

	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	8.1	1.1	9.5	9.5	1.5	1.3	4.7	76.0	41.2	19
Sunday	8.2	1.1	8.5	8.5	1.4	1.5	4.5	56.7	40.3	19
Monday	8.0	1.1	9.9	9.9	1.5	1.4	4.7	72.3	40.3	19
Monday	8.2	1.1	9.6	9.6	1.5	1.4	4.6	58.6	40.4	19
Tuesday	8.1	1.1	8.7	8.7	1.6	1.5	4.6	80.1	39.9	19
Tuesday	8.4	1.5	9.3	9.3	1.7	1.4	4.7	71.8	40.6	19
Wednesday	8.1	1.0	10.2	10.2	1.6	1.5	4.7	104.0	42.4	19
Wednesday	8.2	1.1	8.8	8.8	1.6	1.5	4.4	55.7	39.8	19
Thursday	8.0	1.2	8.8	8.8	1.6	1.5	4.7	75.7	40.3	19
Thursday	8.3	1.2	8.8	8.8	1.7	1.4	4.5	67.8	39.9	19
Friday	8.0	1.5	9.2	9.2	1.3	1.4	4.7	84.0	40.0	19
Friday	8.0	1.1	8.2	8.3	1.3	1.6	4.6	54.1	40.0	19
Saturday	8.0	1.1	9.2	9.2	1.4	1.6	4.5	67.9	39.8	19
Saturday	8.1	1.2	9.0	9.0	1.4	1.5	4.5	64.0	39.8	19
AVG:	8.1	1.2	9.1	9.1	1.5	1.5	4.6	70.6	40.3	19.0

	Temp (F)	Secchi (Ft)	Notes
Sunday	49.6	6.0	
Monday	49.7	6.0	
Tuesday	50.0	6.0	
Wednesday	50.5	5.5	
Thursday	51.6	5.0	
Friday	51.8	5.5	
Saturday	51.7	5.0	
AVG	50.7	5.6	

John Day Dam
Avian Zones



JDA Bird Counts: 4/14/24 to 4/20/24

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)	
14-Apr	PHFB	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	27	27	0	0	62
14-Apr	SWFB	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
14-Apr	PH2	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
14-Apr	SW1	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
14-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	4	4	0	0	0	0	0	0	0	0	27	0	0	0	31
15-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	30	30	0	0	68
15-Apr	SWFB	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
15-Apr	PH2	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
15-Apr	SW1	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
15-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	0	0	0	0	0	0	4	0	30	0	0	0	34
16-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	30	0	0	61
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	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	31
17-Apr	PHFB	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	35	39	0	0	78
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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17-Apr	PH2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17-Apr	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Apr	SW3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Avg/Survey		4	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	37	0	0	0	43

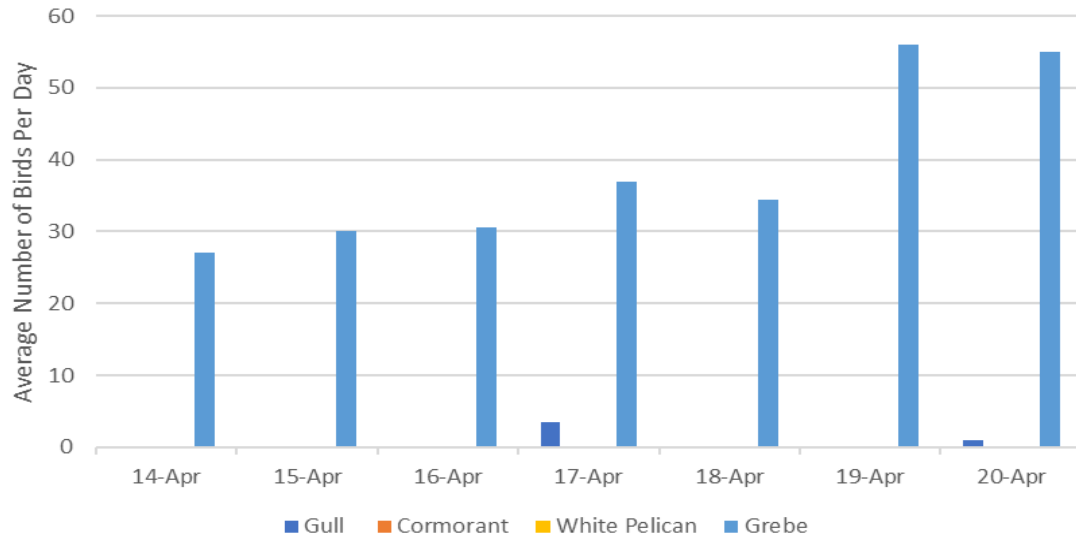
JDA Bird Counts: 4/14/24 to 4/20/24

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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)		
18-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	32	0	0	69	
18-Apr	SWFB	0	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	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	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	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	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	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	0
Avg/Survey		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	35	
19-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	55	0	0	112	
19-Apr	SWFB	0	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	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	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	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	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	0
19-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	0	0	0	0	0	0	0	0	0	0	0	0	0	56	0	0	0	56	
20-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	60	0	0	110	
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	2	0	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	0	0	0	0	0	0	0	0	55	0	0	0	56	

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	9	0	0	12	0	0	0	0	0	0	0	8	0	540	0	569					
Avg/Survey	1	0	0	1	0	0	0	0	0	0	1	0	39	0	41						

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

