

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/4/2024

Inspection Period: 4/28/2024 thru 5/4/2024



**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:	52.8 F
						Secchi:	5.0 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.)	1.4					

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.)	1.0					
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.3					
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.01					
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.4					
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	8.6					
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	8.7					

JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6					
Submersible traveling screens	0								
Turbine trashrack drawdown	0	<1.5', wkly							
Vert barrier screen drawdown	0	<1.2', wkly							
Spill volume	0	per FPP	Avg (kcfs)	63.6	Avg (%)	39.9			
Spill pattern	0	per FPP							
Turbine Unit Priority	0	per FPP							
Turbine 1% Efficiency	0	per FPP							

Fisheries Related Operations

Smolt Monitoring Operations (SMF):

The 2024 SMF sampling season started April 1st for condition monitoring only.

From April 1 - June 15 condition monitoring will occur 5-days/week (Monday-Friday) .

From June 16 - September 15 condition monitoring will occur 3-days/week (Monday, Wednesday, Friday).

High water temperature protocols go into effect when water temperatures $\geq 70^{\circ}\text{F}$ (Monday and Thursday sampling) and returns to normal sampling when daily $< 69.5^{\circ}\text{F}$. All samples will run from approximately 0700-1300 or until the target of 100 fish of the predominant species is reached.

Adult Ladder Operations:

NFL is operating in criteria.

SFL turbine #3 RTS 02/29/24, FOG's removed. Operating 2 SFL Turbines @ reduced RPMS (SFT 1 or 2: 55 RPM and SFT-3: 60 RPM).

SFL (SE1) entrance weir replaced 04/23/24 with a modified weir that includes lamprey passage improvements.

Project Operations:

Spring Spill began April 10

Current outages: MU3 (ETR:9/19/24), MU4 (ETR: unknown), MU7 (ETR: 07/31/28), MU10 (ETR: 11/14/24), MU13 (ETR: 11/14/24), MU14 (ETR: 04/30/26) .

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

Weekly Average Tailwater TDG: 116.0

Maintenance:

NFL AWS pump #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.

NFL AWS pump #3 is down with a failed harmonic filter (occured: 4/24/24)(ETR: unknown)

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Very low foraging gull numbers (~2/inspection), decrease in foraging grebes (~25/inspection) , and no foraging cormorants.

There are ≤ 11 pelicans hanging around Preacher's Island and occasionally feeding in Powerhouse Zone 2 and 3.

7 of 125 avian lines are down.

Research:

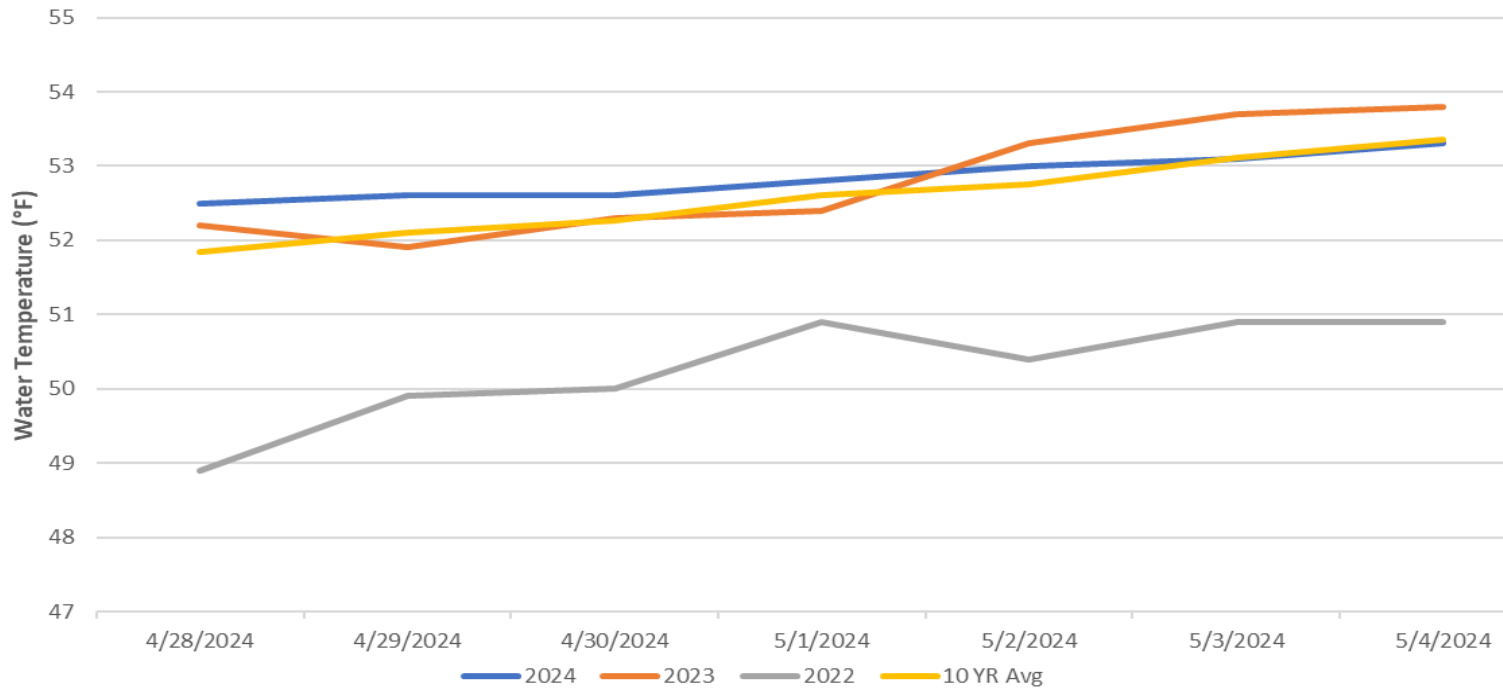
Four Peaks started ladder counts on 4/1/24.

PNNL juvenile lamprey passage behavior and survival study is ongoing.

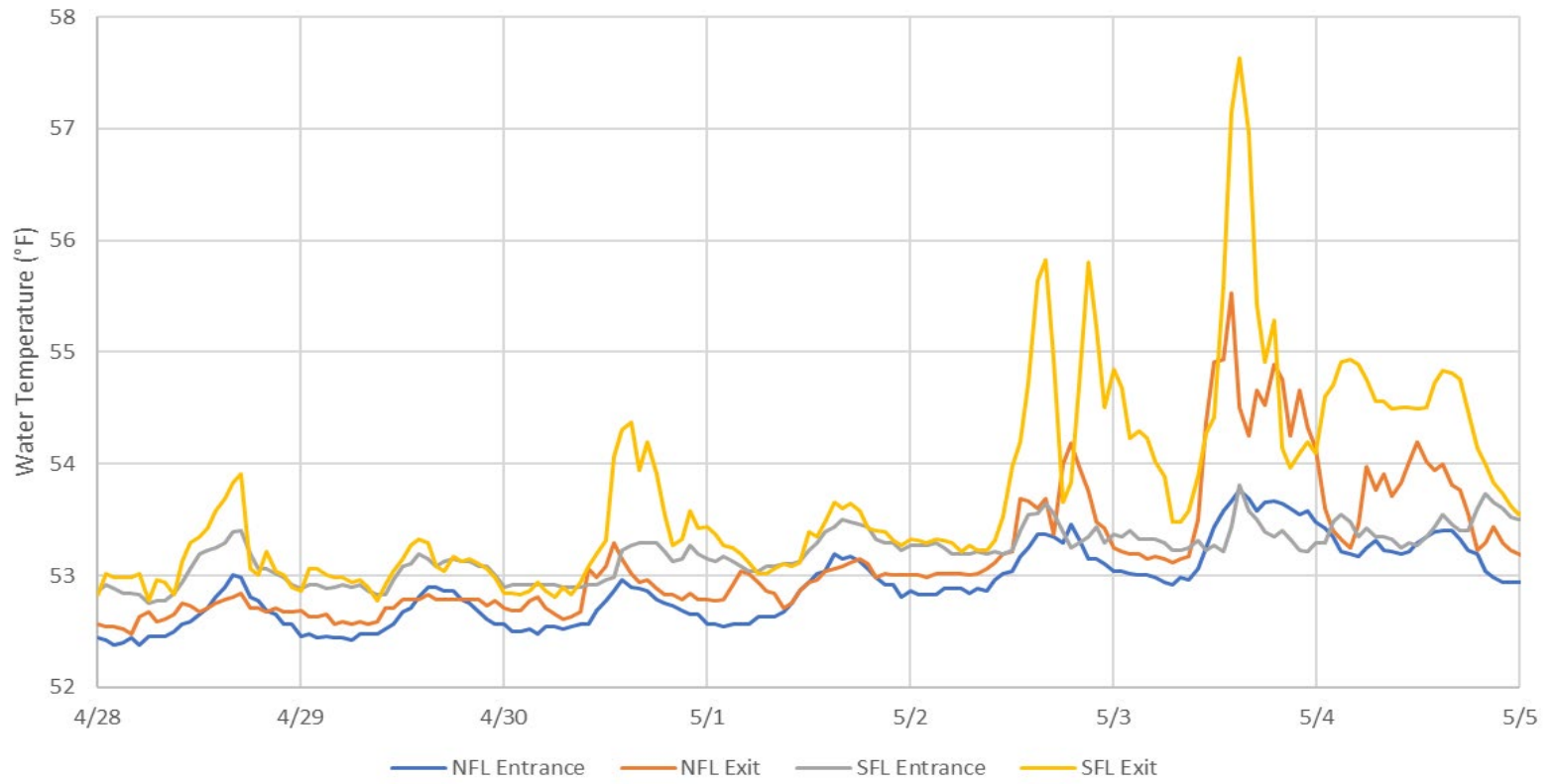
USDA started boat hazing on 04/18/24.

WDFW dam angling started fishing on 5/1/24.

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)
4/29/2024	Unit 4	2.01	55,0,60	160.7
4/29/2024	Unit 12	1.98	55,0,60	160.7
5/1/2024	Unit 4	1.98	55,0,60	159.9
5/1/2024	Unit 12	1.96	55,0,60	159.9
5/4/2024	Unit 4	2.11	55,0,60	160.0
5/4/2024	Unit 12	2.00	55,0,60	160.0

Average Weekly Velocity (ft/sec)	2.01
----------------------------------	------

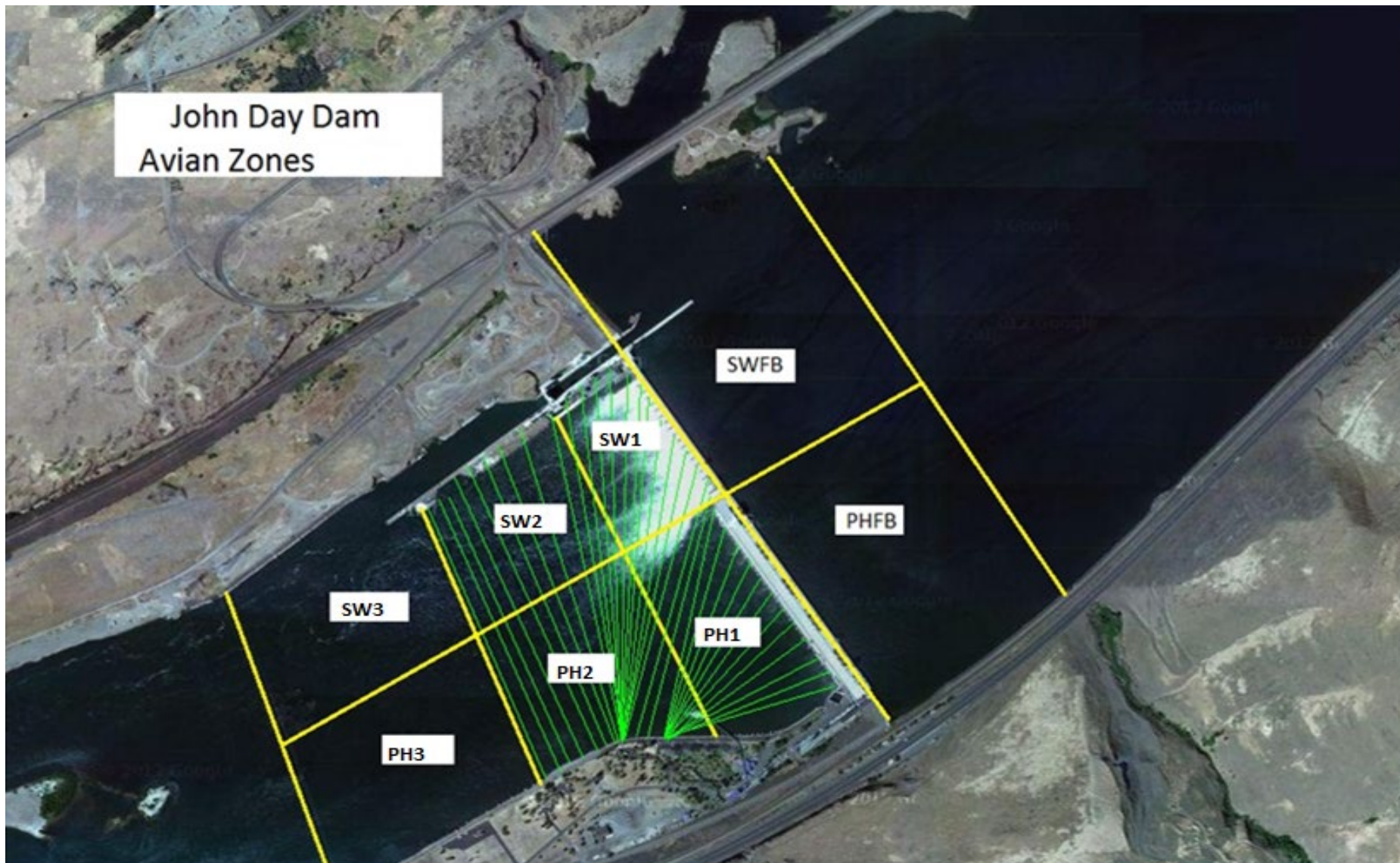
JOHN DAY WEEKLY AVERAGES

	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	8.2	1.1	8.5	8.6	1.5	1.4	4.7	76.1	39.7	19
Sunday	8.1	1.0	8.3	8.4	1.5	1.5	4.5	71.8	39.7	19
Monday	8.5	1.1	8.7	8.8	1.5	1.5	4.6	76.2	39.4	19
Monday	8.0	1.0	8.1	8.2	1.4	1.3	4.4	60.0	39.9	19
Tuesday	8.5	1.0	8.8	8.9	1.5	1.2	4.6	74.0	40.1	19
Tuesday	8.2	1.0	8.7	8.8	1.1	1.5	4.8	49.9	43.9	18
Wednesday	8.7	1.0	8.6	8.7	1.6	1.5	4.7	65.9	39.7	19
Wednesday	8.4	1.1	8.7	8.8	1.4	1.4	4.6	55.5	39.3	19
Thursday	8.8	1.0	9.3	9.3	1.3	1.5	4.6	66.1	40.0	19
Thursday	8.0	1.0	8.6	8.7	1.3	1.6	4.5	53.8	39.2	19
Friday	8.1	1.1	8.5	8.5	1.4	1.4	4.6	55.5	39.3	19
Friday	8.0	1.0	8.6	8.5	1.1	1.4	4.6	60.1	39.6	19
Saturday	8.1	1.1	8.6	8.6	1.4	1.4	4.7	62.3	39.5	19
Saturday	8.2	1.0	8.6	8.6	1.4	1.5	4.5	63.8	39.8	19
AVG:	8.3	1.0	8.6	8.7	1.4	1.4	4.6	63.6	39.9	18.9

	Temp (F)	Secchi (Ft)	Notes
Sunday	52.5	5.0	
Monday	52.6	5.0	
Tuesday	52.6	5.0	
Wednesday	52.8	5.0	
Thursday	53.0	5.0	
Friday	53.1	5.0	
Saturday	53.3	5.0	
AVG	52.8	5.0	

Note: Temperatures are the 'average' taken during the inspection and are not a true daily average temperature

John Day Dam
Avian Zones



JDA Bird Counts: 4/28/24 to 5/4/24

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)	
28-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	50
28-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	50
28-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	PH3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
28-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-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		1		0		0		0		0		0		0		0		50		0		51
29-Apr	PHFB	2	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	32	50	0	0	91
29-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-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		1		3		1		0		0		0		0		0		41		0		46
30-Apr	PHFB	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	26	16	0	0	49
30-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	SW3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Avg/Survey		5		4		0		0		0		0		0		0		21		0		30
1-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	29	0	0	59
1-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-May	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		30		0		30

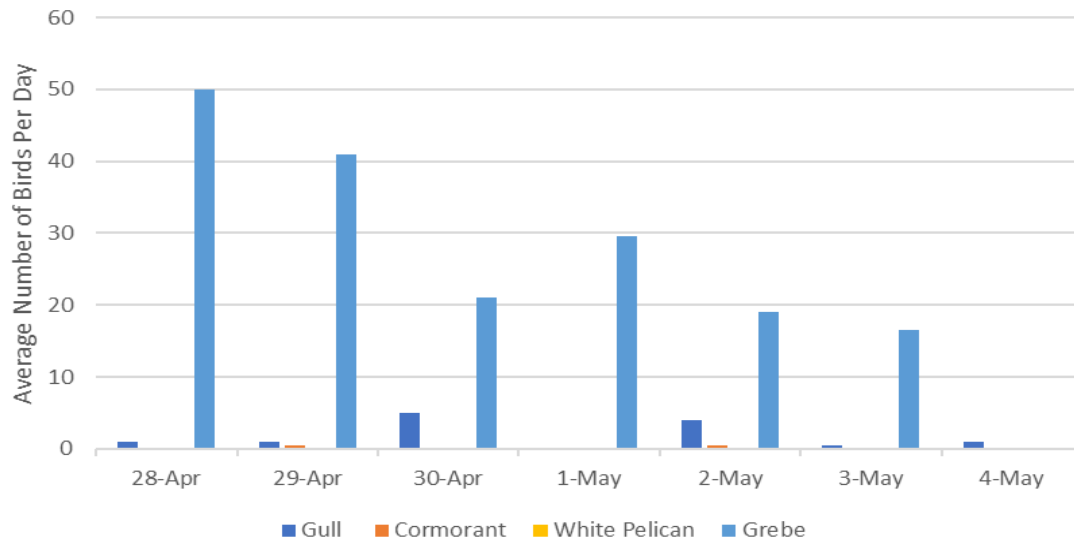
JDA Bird Counts: 4/28/24 to 5/4/24

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)		
2-May	PHFB	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	18	20	0	0	45	
2-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	PH2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
2-May	PH3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
2-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-May	SW3	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Avg/Survey		4		4		1		0		0		0		0		0		19		0		27	
3-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	15	0	0	33	
3-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-May	SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Avg/Survey		1		0		0		0		0		0		0		0		17		0		17	
4-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-May	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		1	

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	F	NF			
Weekly Total	25	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	354	0	401		
Avg/Survey	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	29		

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

