

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/18/2024

Inspection Period: 5/12/2024 thru 5/18/2024



**US Army Corps
of Engineers**
Portland District

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

All JDA 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: 56.2 F Secchi: 4.6 Ft.
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NORTH FISHWAY

Exit Differential	0	≤ 0.5'		
Exit Control Weirs	0	High Setting		
Count Station Differential	0	≤ 0.3'		
Weir Crest Depth (DS Gauge)	0	Per FPP	Switched to "Shad Mode" on 5/20/24 (water depth over weirs switched from 1.0' ± 0.1' to 1.3' ± 0.1')	
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	Per FPP	Switched to "Shad Mode" on 5/20/24 (water depth over weirs switched from 1.0' ± 0.1' to 1.3' ± 0.1')	
South Entrance Differential	0	1.0' - 2.0'	Avg. (Ft.)	1.1
Entrance Weir SE1	0	Depth (≥ 8')	Avg. (Ft.)	8.2
Collection Channel Velocity	0	1.5' - 4.0' FPS	Avg. (Ft.)	2.21
N. Entrance PH (Bay 19) Differential	0	1.0' - 2.0'	Avg. (Ft.)	1.4
Entrance Weir NE1	0	Depth (≥ 8')	Avg. (Ft.)	9.7
Entrance Weir NE2	0	Depth (≥ 8')	Avg. (Ft.)	9.7

JUVENILE PASSAGE

Forebay/Bypass Conduit Differential	0	4.0' - 5.0'	Avg. (Ft.)	4.6
Submersible Traveling Screens	0	Per FPP		
Turbine Trashrack Drawdown	0	<1.5'		
Vert. Barrier Screen Drawdown	0	<1.2'		
Spill Volume	0	Per FPP	Avg. (kcfs)	84.4
Spill Pattern	0	Per FPP	Avg. (%)	39.9
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 FOG's removed. Operating 2 SFL turbines @ reduced RPMs (SFT-1 or 2: 55 RPMs and SFT-3: 60 RPMs).

SFL (SE1) entrance weir replaced 04/23/24 with a modified weir that includes lamprey passage improvements (see MOC-24JDA05).

Switched to "Shad Mode" on 5/20/24

Project Operations:

Spring Spill began 4/10/24 ([Summer Spill begins: 6/16/24], [Late Summer Spill begins: 8/1/24], [Spillbay 2 adult attraction begins: 9/1/24]).

Current outages: MU3 (ETR: 8/1/24), MU7 (ETR: 10/1/25), MU10 (ETR: 1/16/25), MU13 (ETR: 7/11/24), MU14 (ETR: 04/30/26).

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

Weekly Average Tailwater TDG: 117.6

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 (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:

Increased pelican foraging (~2/inspection), increased gull foraging (~14/inspection), unchanged grebe foraging (~14/inspection), and no foraging cormorants.

There are ≤ 16 pelicans hanging around Preacher's Island.

7 of 125 avian lines are down.

Research:

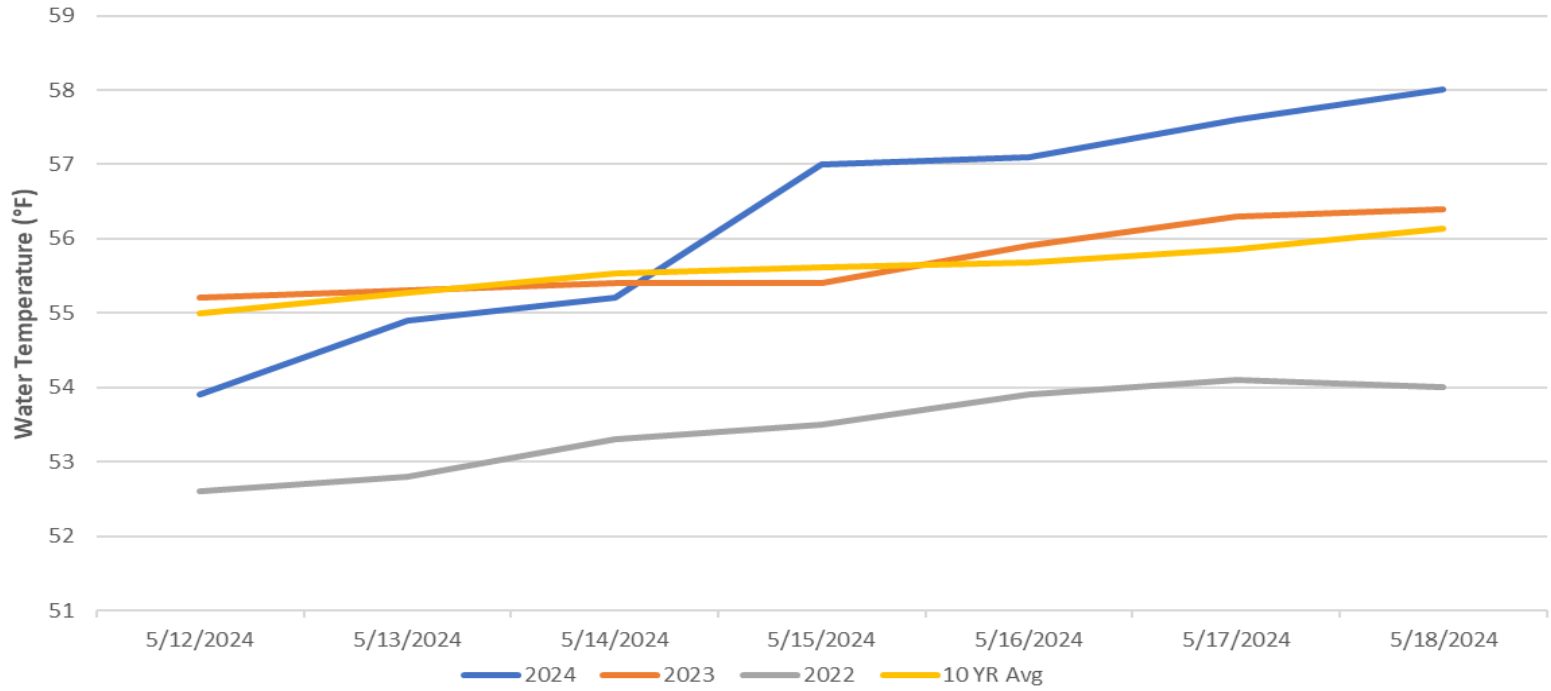
Four Peaks started ladder counts on 4/1/24.

PNNL juvenile lamprey passage behavior and survival study is ongoing.

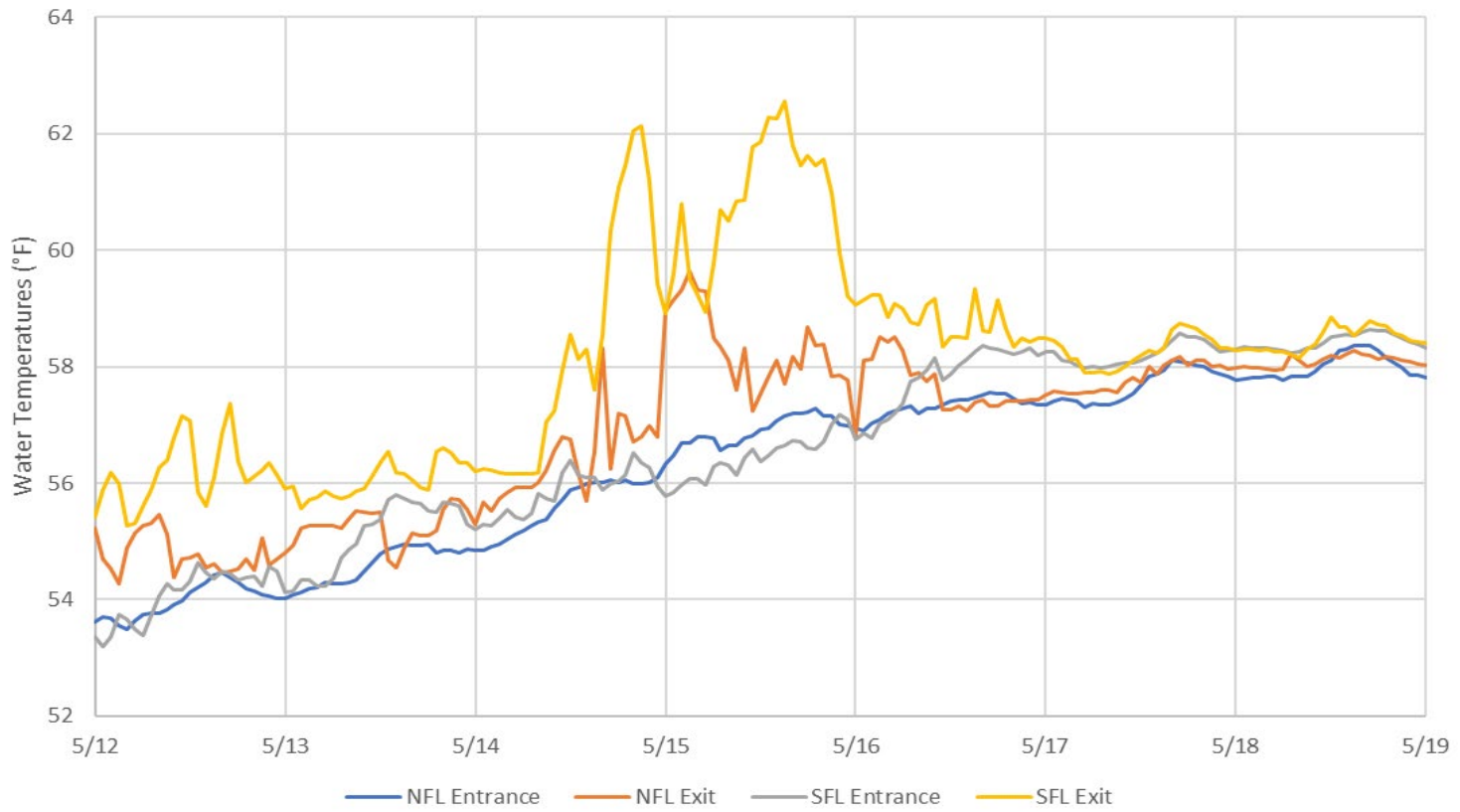
USDA started boat hazing on 04/18/24.

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)
5/13/2024	Unit 4	2.17	55,0,60	160.4
5/13/2024	Unit 12	2.19	55,0,60	160.4
5/15/2024	Unit 4	2.34	55,0,60	161.1
5/15/2024	Unit 12	2.24	55,0,60	161.1
5/18/2024	Unit 4	2.19	55,0,60	160.3
5/18/2024	Unit 12	2.16	55,0,60	160.3

Average Weekly Velocity (ft/sec)	2.21
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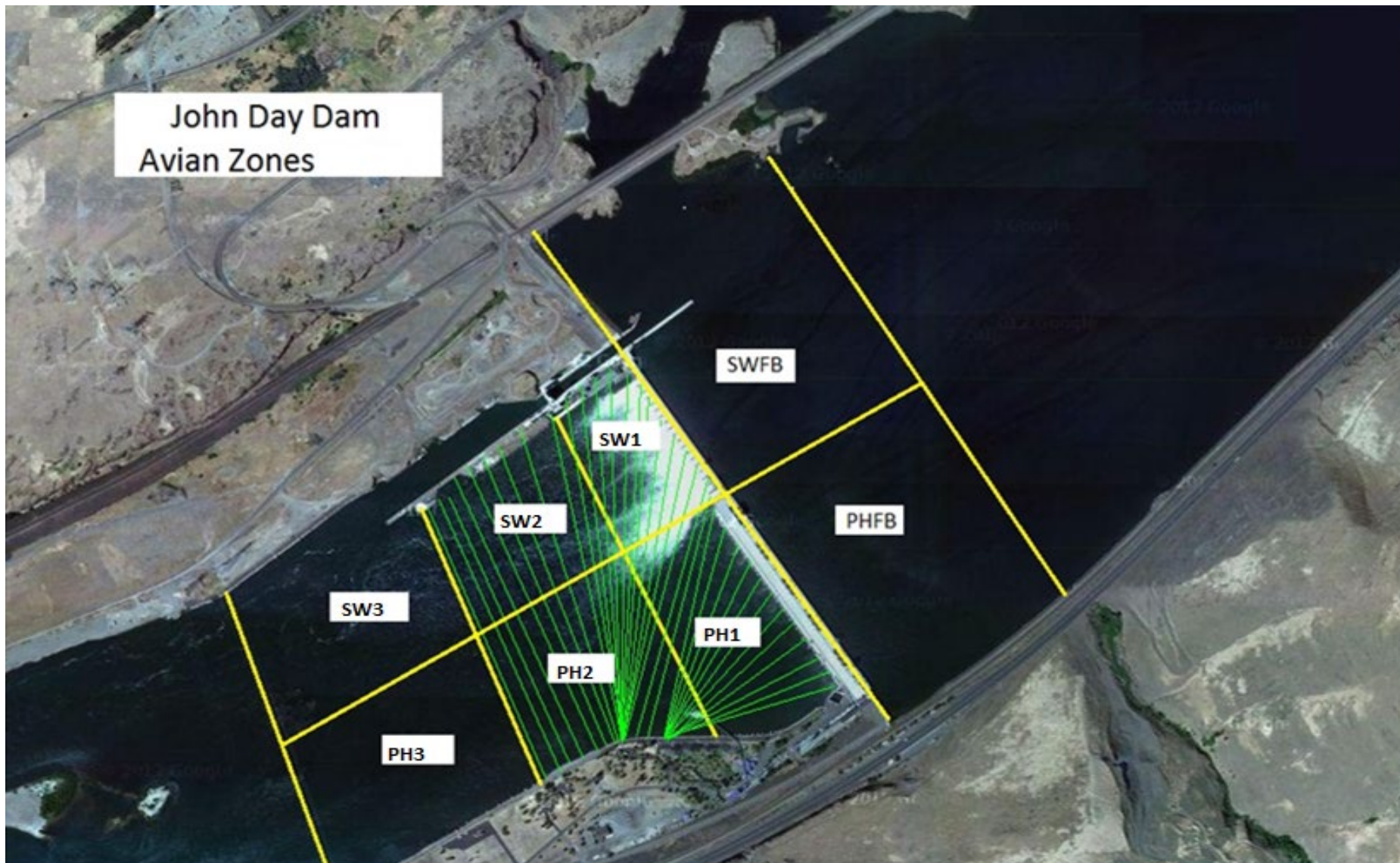
JOHN DAY WEEKLY AVERAGES

	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	8.2	1.0	8.9	8.9	1.5	1.4	4.6	69.3	40.1	18
Sunday	8.0	1.0	9.1	9.1	1.5	1.4	4.6	70.1	39.8	18
Monday	8.1	1.1	8.9	8.9	1.6	1.5	4.6	69.7	40.2	18
Monday	8.3	1.1	9.0	9.0	1.5	1.3	4.6	69.4	39.5	19
Tuesday	8.4	1.2	10.6	10.7	1.2	1.4	4.6	85.9	39.7	19
Tuesday	8.2	1.4	9.9	9.9	1.6	1.5	4.6	84.3	39.7	19
Wednesday	8.0	1.0	9.4	9.4	1.6	1.4	4.6	98.0	40.1	19
Wednesday	8.0	1.0	10.2	10.2	1.3	1.4	4.5	94.0	37.7	19
Thursday	8.4	1.0	10.1	10.1	1.5	1.5	4.6	100.0	39.5	19
Thursday	8.3	1.1	10.7	10.7	1.3	1.4	4.5	88.2	40.2	16
Friday	8.3	1.2	10.8	10.8	1.3	1.4	4.6	90.0	40.0	19
Friday	8.2	1.0	10.5	10.5	1.2	1.6	4.6	86.4	41.3	19
Saturday	8.1	1.3	8.9	8.9	1.5	1.5	4.6	87.9	40.8	19
Saturday	8.1	1.4	9.3	9.3	1.6	1.4	4.7	88.1	39.8	19
AVG:	8.2	1.1	9.7	9.7	1.4	1.4	4.6	84.4	39.9	18.6

	Temp (F)	Secchi (Ft)	Notes
Sunday	53.9	5.0	
Monday	54.9	4.5	
Tuesday	55.2	4.5	
Wednesday	57.0	4.5	
Thursday	57.1	4.5	
Friday	57.6	4.5	
Saturday	58.0	4.5	
AVG	56.2	4.6	

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: 5/12/24 to 5/18/24

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)	
12-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	10
12-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-May	SW3	12	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
Avg/Survey		21		0		0		0		0		0		0		5		0		26		
13-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	0	14
13-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-May	PH3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
13-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-May	SW2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
13-May	SW3	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Avg/Survey		5		0		0		0		0		0		1		0		7		12		
14-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8
14-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
14-May	PH3	0	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	11
14-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	SW3	2	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	32
Avg/Survey		17		0		0		0		0		0		4		0		8		29		
15-May	PHFB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	17	14	0	0	32
15-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
15-May	PH3	1	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
15-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	SW3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Avg/Survey		12		1		0		0		0		0		1		0		16		29		

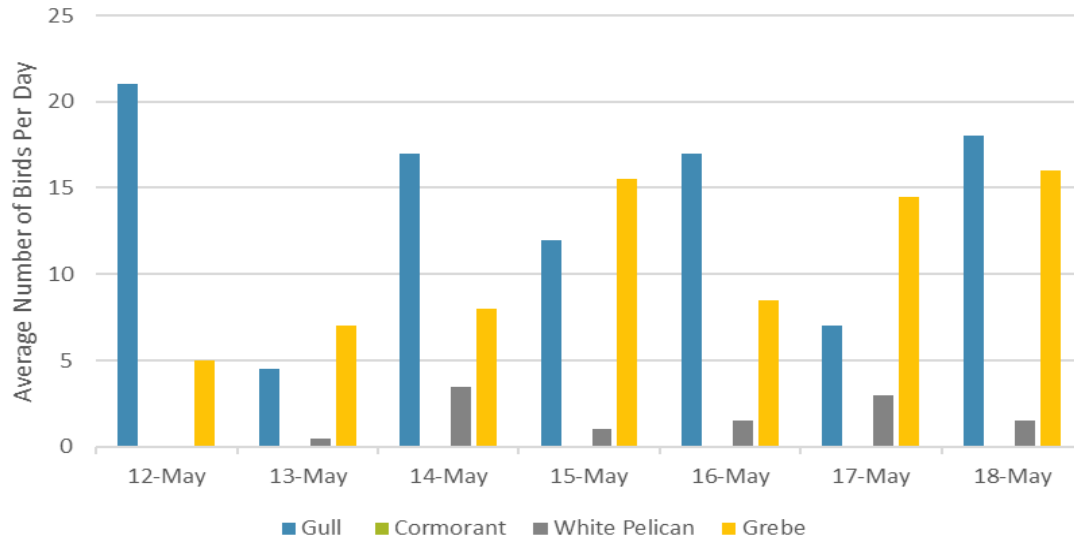
JDA Bird Counts: 5/12/24 to 5/18/24

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)	
16-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	9	0	0	17
16-May	SWFB	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16-May	PH3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
16-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	SW3	7	23	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	33
Avg/Survey		17		2		0		0		0		0		2		0		9		0		29
17-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	15	0	0	29
17-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
17-May	SW3	6	8	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	17
Avg/Survey		7		0		0		0		0		0		3		0		15		0		25
18-May	PHFB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	0	0	33
18-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-May	PH3	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
18-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-May	SW2	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	11
18-May	SW3	10	5	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	17
Avg/Survey		18		0		0		0		0		0		2		0		16		0		36

Totals	Gulls		Cormorant		Caspian tern		White Pelican		Grebe		Total
	F	NF	F	NF	F	NF	F	NF	F	NF	
Weekly Total	193	4	0	0	0	0	22	0	149	0	368
Avg/Survey	14	0	0	0	0	0	2	0	11	0	26

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

