

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 4/27/2024

Inspection Period: 4/21/2024 thru 4/27/2024



**US Army Corps  
of Engineers**  
Portland District

JD/WC Project-Fisheries  
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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: 52.0 F	Secchi: 5.1 Ft.
<b>NORTH FISHWAY</b>							
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			
<b>SOUTH FISHWAY</b>							
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.)	1.1			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.3			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.13			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	8.8			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	8.8			
<b>JUVENILE PASSAGE</b>							
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)	66.5	Avg (%)	39.8	
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 (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:5/9/24), MU7 (ETR: 07/31/28), MU9 (ETR 04/30/24), 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: 116.9

### Maintenance:

NFL AWS pump #4 is OOS, with an unknwn 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 ( ~49/inspection) , and no foraging cormorants.

There are ≤4 pelicans hanging around Preacher's Island and occasionally feeding in Powerhouse Zone 2 and 3.

7 of 125 avian lines are down.

### Research:

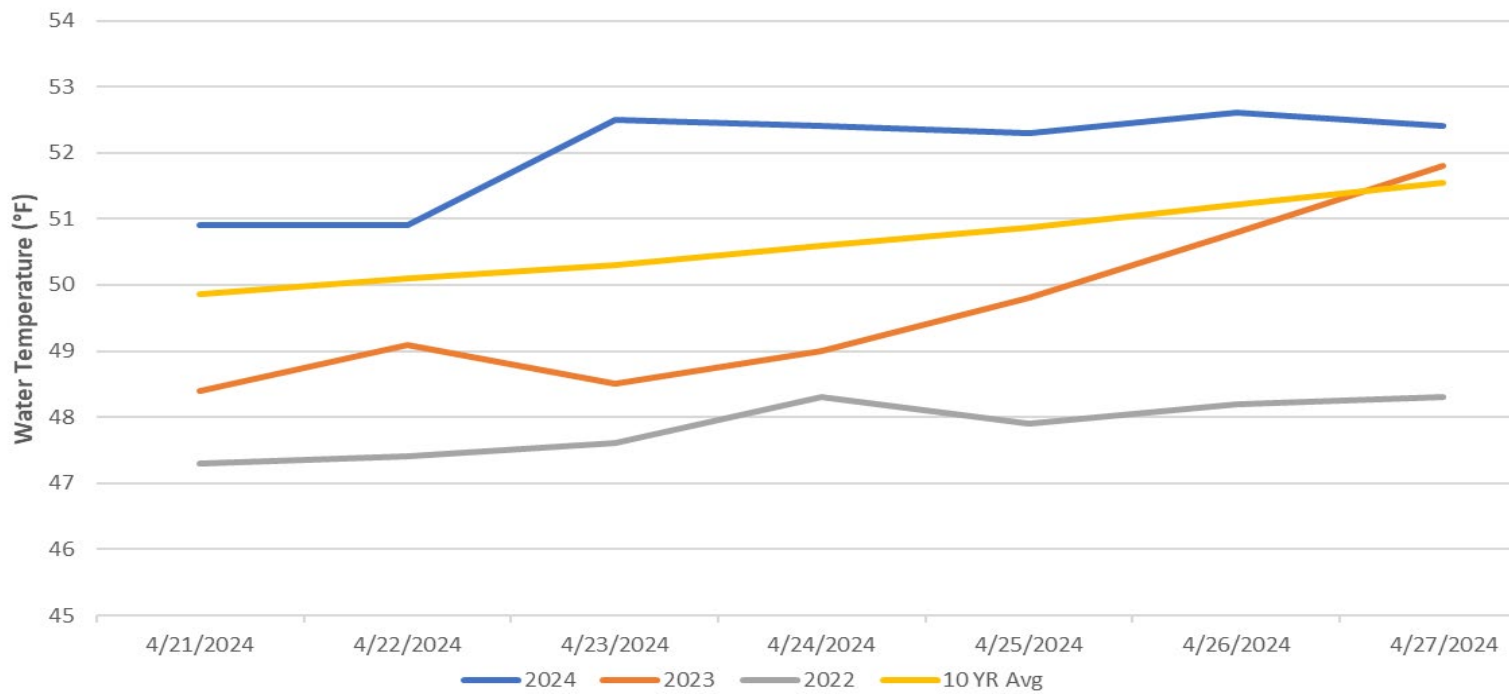
Four Peaks started ladder counts on 4/1/24.

PNNL juvenile lamprey passage behavior and survival study is ongoing.

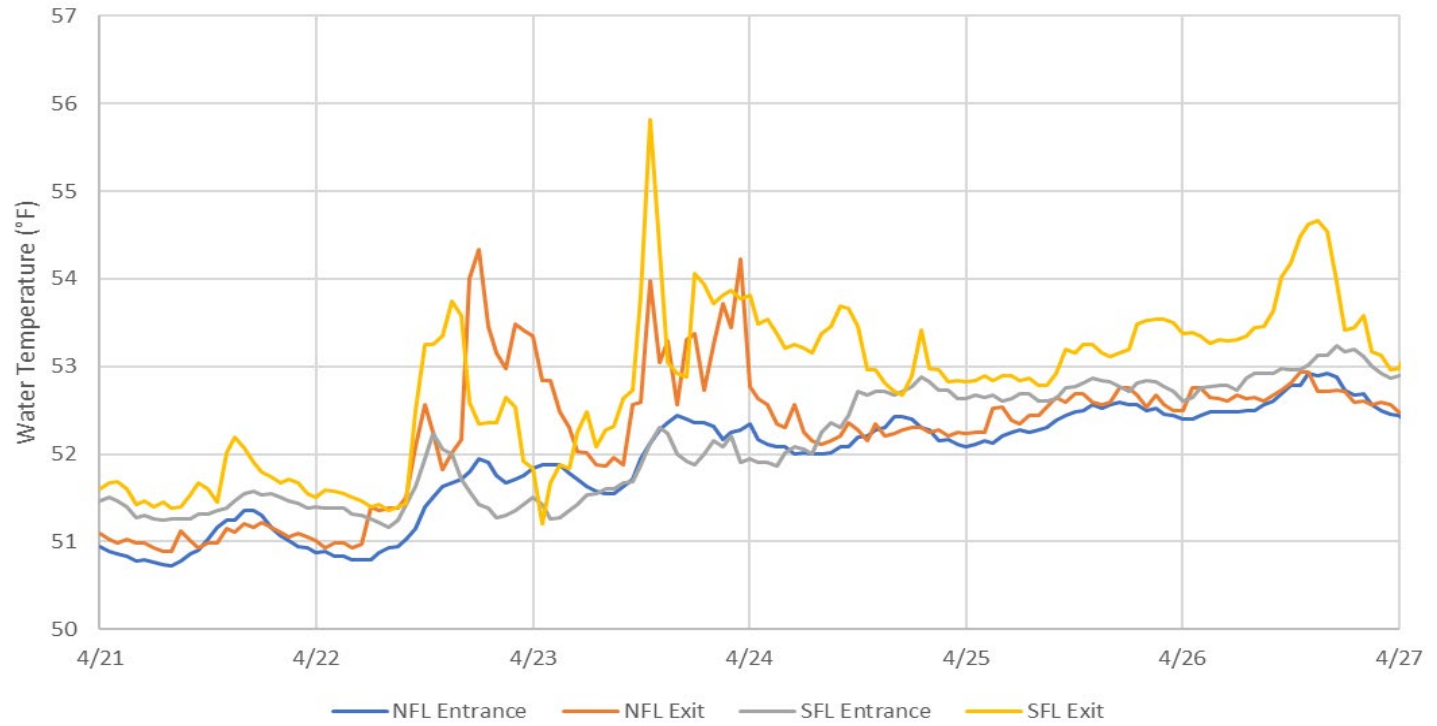
USDA started boat hazing on 04/18/24.

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)
4/22/2024	Unit 4	2.11	0,55,60	160.2
4/22/2024	Unit 12	2.12	0,55,60	160.2
4/24/2024	Unit 4	2.24	0,55,60	160.9
4/24/2024	Unit 12	2.23	0,55,60	160.9
4/27/2024	Unit 4	2.05	55,0,60	160.0
4/27/2024	Unit 12	2.02	55,0,60	160.0

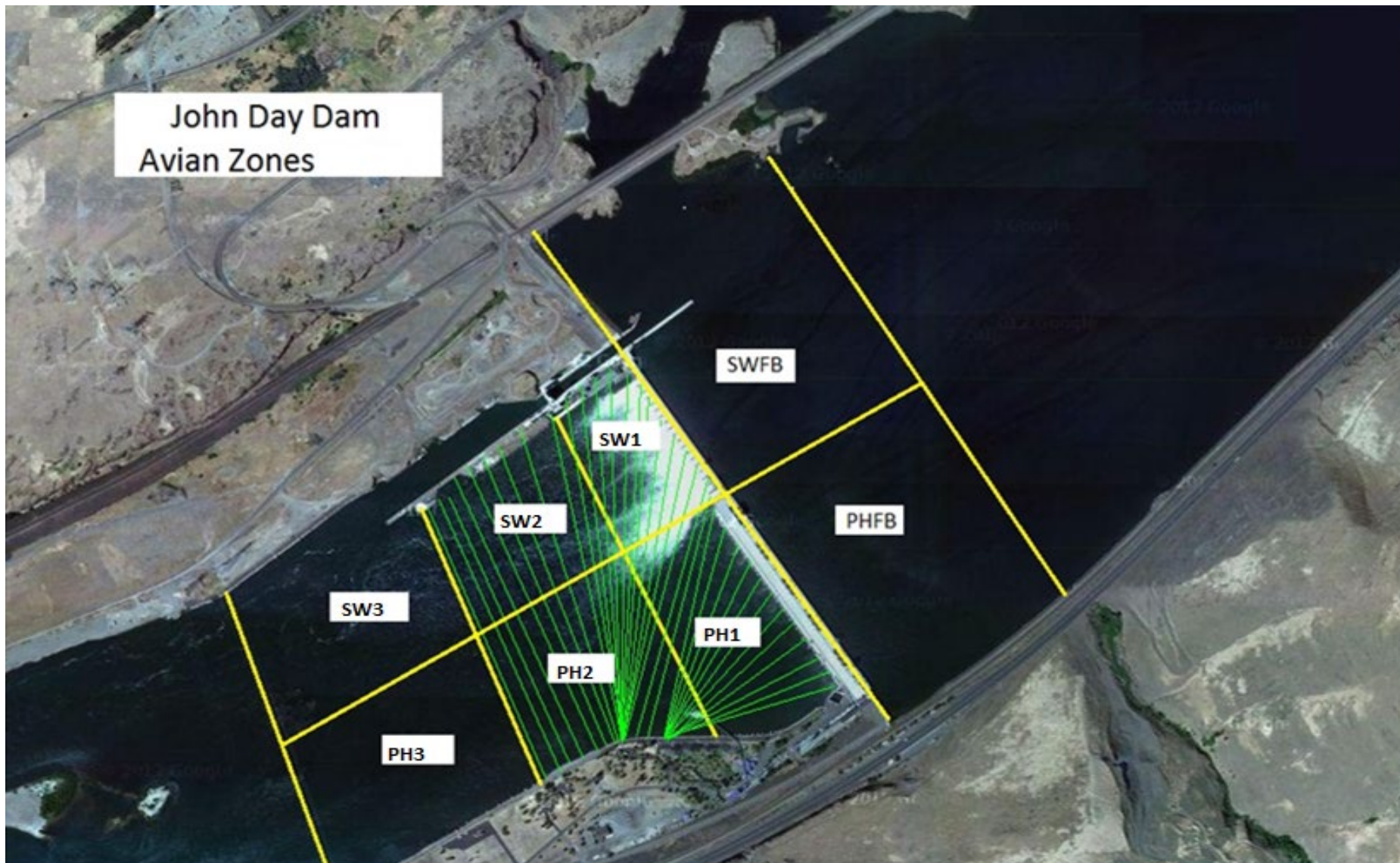
Average Weekly Velocity (ft/sec)	2.13
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## JOHN DAY WEEKLY AVERAGES

	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
<b>Sunday</b>	8.1	1.3	8.7	8.7	1.5	1.4	4.6	62.0	39.9	19
<b>Sunday</b>	8.2	1.1	8.8	8.8	1.4	1.5	4.7	62.4	39.9	19
<b>Monday</b>	8.2	1.0	8.9	9.0	1.5	1.5	4.6	66.3	39.4	19
<b>Monday</b>	8.1	1.2	9.0	9.0	1.4	1.3	4.5	66.4	39.9	19
<b>Tuesday</b>	8.1	1.2	9.3	8.7	1.6	1.5	4.6	80.1	39.9	19
<b>Tuesday</b>	9.9	1.4	9.3	9.4	1.4	1.5	4.6	70.0	39.8	19
<b>Wednesday</b>	8.8	1.0	9.2	9.2	1.4	1.4	4.6	78.2	39.7	19
<b>Wednesday</b>	8.7	1.1	9.2	9.2	1.5	1.5	4.5	68.2	40.3	19
<b>Thursday</b>	8.1	1.0	9.1	9.1	1.6	1.4	4.6	61.8	39.4	19
<b>Thursday</b>	8.0	1.2	8.8	8.8	1.5	1.5	4.4	62.1	40.0	19
<b>Friday</b>	8.0	1.1	8.7	8.8	1.3	1.4	4.6	60.1	39.7	19
<b>Friday</b>	8.0	1.1	8.5	8.6	1.4	1.4	4.6	56.3	39.8	19
<b>Saturday</b>	8.0	1.0	8.0	8.1	1.6	1.4	4.7	73.0	39.1	19
<b>Saturday</b>	8.0	1.0	8.3	8.4	1.5	1.4	4.6	64.3	39.7	19
<b>AVG:</b>	<b>8.3</b>	<b>1.1</b>	<b>8.8</b>	<b>8.8</b>	<b>1.5</b>	<b>1.4</b>	<b>4.6</b>	<b>66.5</b>	<b>39.8</b>	<b>19.0</b>

	Temp (F)	Secchi (Ft)	Notes
<b>Sunday</b>	50.9	5.0	
<b>Monday</b>	50.9	5.0	
<b>Tuesday</b>	52.5	5.0	
<b>Wednesday</b>	52.2	5.5	
<b>Thursday</b>	52.3	5.5	
<b>Friday</b>	52.6	4.5	
<b>Saturday</b>	52.4	5.0	
<b>AVG</b>	<b>52.0</b>	<b>5.1</b>	

John Day Dam  
Avian Zones



**JDA Bird Counts:**

**4/21/24 to 4/27/24**

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)	
21-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	60	0	0	120
21-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Apr	PH2	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
21-Apr	SW1	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
21-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>60</b>		<b>0</b>		<b>60</b>		
22-Apr	PHFB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	40	0	0	92
22-Apr	SWFB	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
22-Apr	PH2	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
22-Apr	SW1	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
22-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>46</b>		<b>0</b>		<b>46</b>		
23-Apr	PHFB	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	55	10	0	0	67
23-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>33</b>		<b>0</b>		<b>34</b>		
24-Apr	PHFB	0	0	9	6	0	0	0	0	0	0	0	0	0	0	0	0	53	46	0	0	114
24-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	PH1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
24-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	PH3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
24-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>3</b>		<b>8</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>50</b>		<b>0</b>		<b>60</b>		



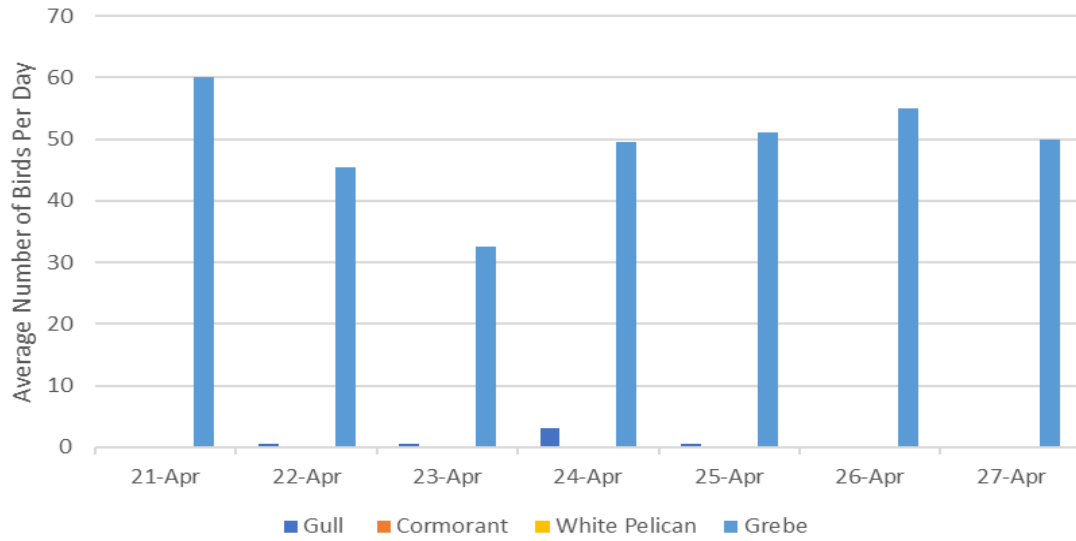
**JDA Bird Counts: 4/21/24 to 4/27/24**

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

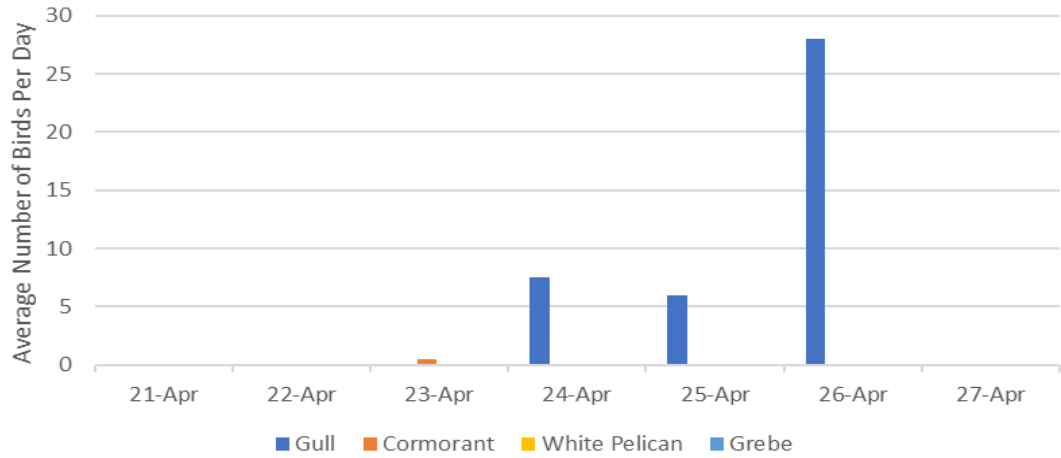
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
25-Apr	PHFB	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	54	48	0	0	114
25-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	PH3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
25-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>1</b>		<b>6</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>51</b>		<b>0</b>		<b>58</b>
26-Apr	PHFB	0	0	7	49	0	0	0	0	0	0	0	0	0	0	0	0	57	53	0	0	166
26-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>0</b>		<b>28</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>55</b>		<b>0</b>		<b>83</b>
27-Apr	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	0	0	100
27-Apr	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Apr	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Avg/Survey</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>50</b>		<b>0</b>		<b>50</b>

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					
<b>Weekly Total</b>	<b>9</b>	<b>83</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>687</b>	<b>0</b>	<b>780</b>				
<b>Avg/Survey</b>	<b>1</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>49</b>	<b>0</b>	<b>56</b>				

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds





New SE1 entrance weir with front plate and rounded top installed 04/23/24



Previous SE1 entrance weir removed