

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/27/2023

Inspection Period: 5/21/2023 thru 5/27/2023



**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:	58.0 F
							Secchi:	3.5 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.)	1.6				
<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.)	1.4				
Entrance weir SE1	3	depth (≥ 8')	AVG (Ft.)	8.3				
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.66				
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7				
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	10.4				
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.8				
<b>JUVENILE PASSAGE</b>								
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6				
Submersible traveling screens	0	visual inspect	next inspection 5/22-5/25					
Turbine trashrack drawdown	0	<1.5', wkly						
Vert barrier screen drawdown	0	<1.2', wkly						
Spill volume	0	per FPP	Avg (kcfs)	203.9	Avg (%)	55.0		
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), MU7 (ETR: 7/31/28), MU8 (ETR: 1/10/24), MU10 (ETR: 11/15/23), MU11 (ETR: 5/31/23), 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: 117.42

### Maintenance:

### Calibration:

All gauges within the 0.3' criteria.

### Bird Data:

Pelicans have begun foraging in the tailrace (average ~2/inspection), Grebe numbers are holding steady in the forebay (~10), Gull numbers are holding steady with most foraging activity located in PH3 and SW3 zones (~60/inspection), and one cormorant sighting this week.

There are approximately 50-60 pelicans hanging around Preacher's Island

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

### Research:

Four Peaks started ladder counts on 3/1/23 and will be performing year-round counts for 2023 (Day video 11/1/23 - 2/29/24)

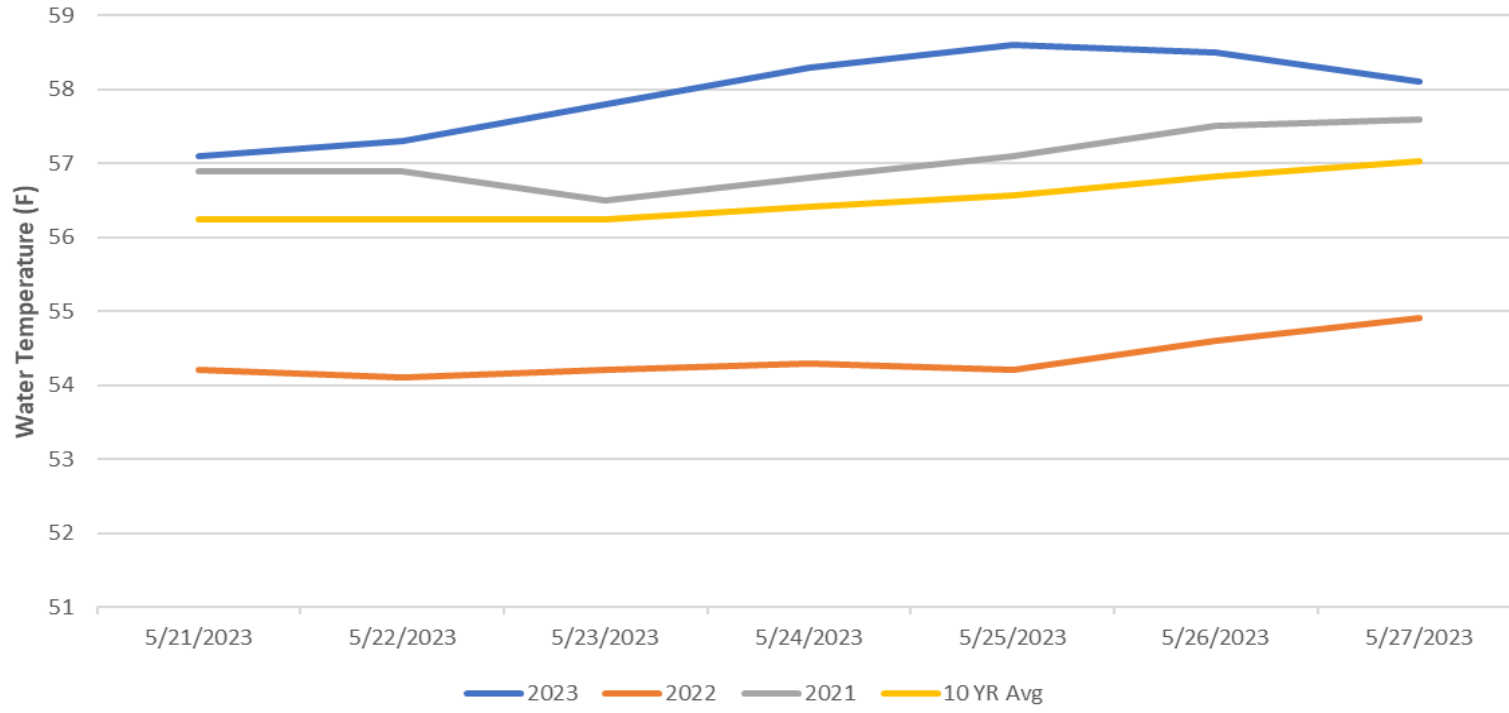
PSMFC smolt condition monitoring began 4/3/23 (currently 5-days/week)

USDA began hazing on 4/16/23 for 7-days/week, as crew availability and weather conditions permit

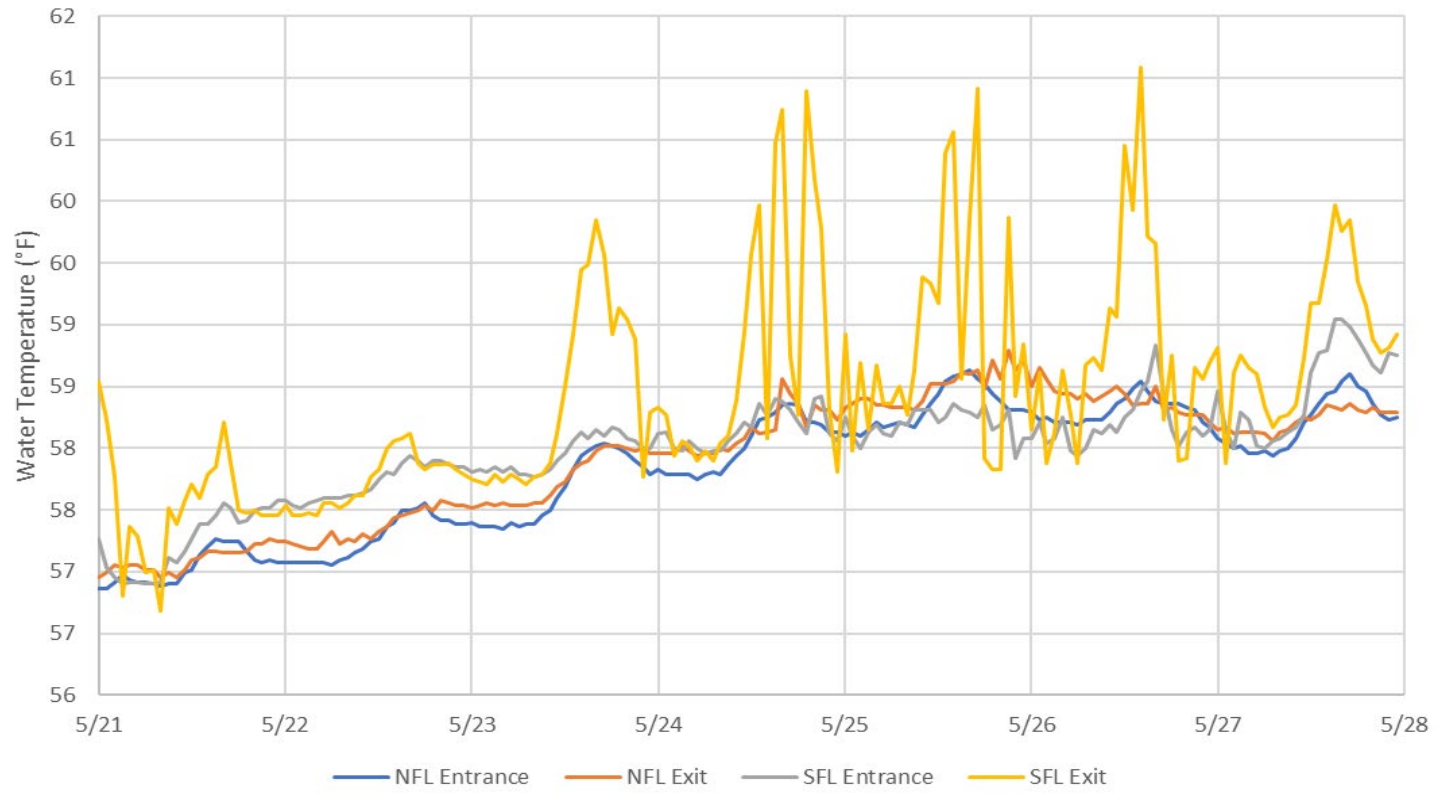
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation is upcoming and TBD

### John Day Dam Water Temperature (F)



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)
5/22/2023	Unit 4	2.89	55,55,0	165.5
5/22/2023	Unit 12	2.75	55,55,0	165.5
5/24/2022	Unit 4	2.80	55,55,0	164.1
5/24/2022	Unit 12	2.80	55,55,0	164.1
5/27/2023	Unit 4	2.40	55,55,0	162.2
5/27/2023	Unit 12	2.31	55,55,0	162.2

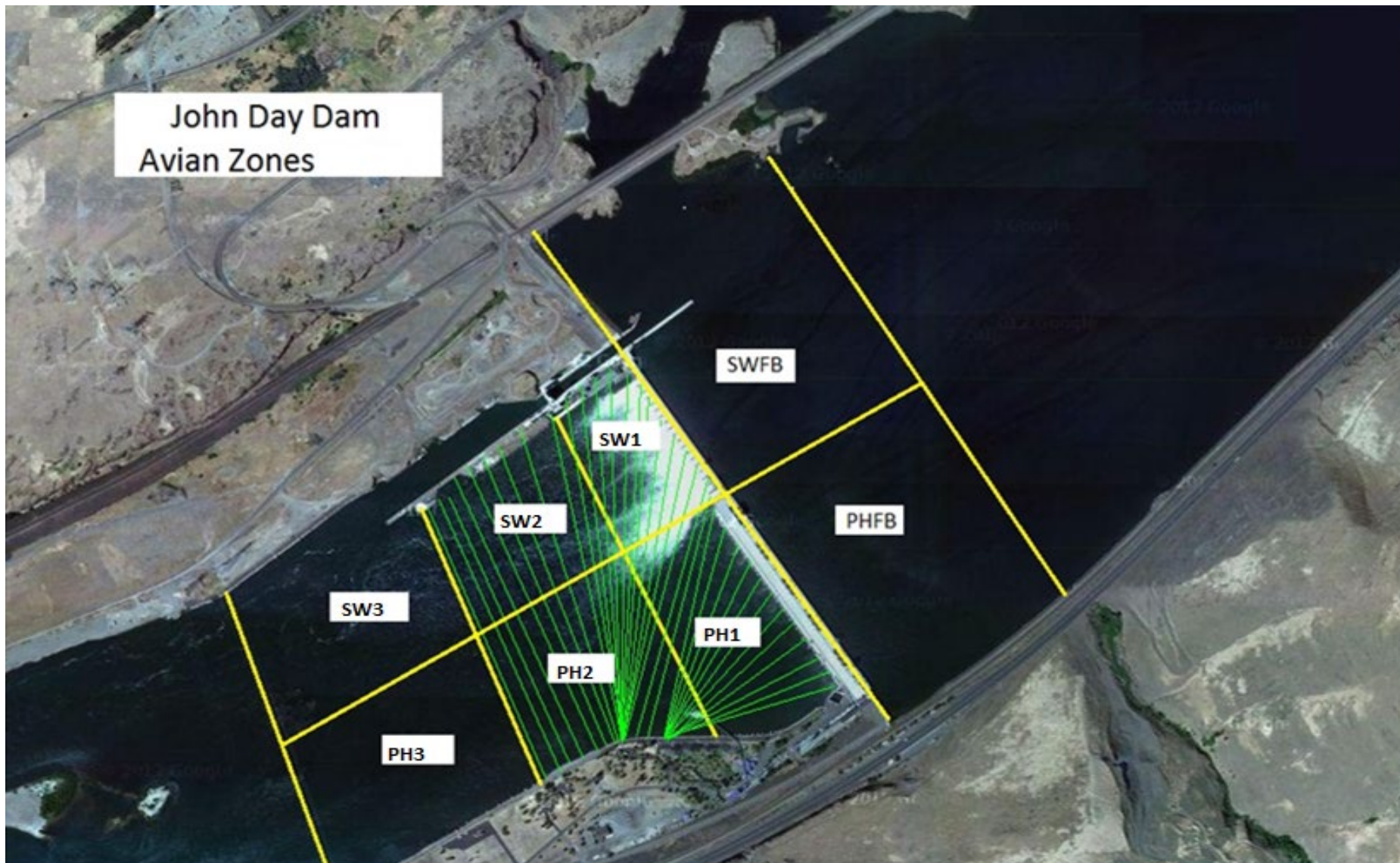
Average Weekly Velocity (ft/sec)	2.66
----------------------------------	------

## 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	8.4	1.6	11.8	11.3	1.9	1.5	4.5	205.5	49.0	19.0
Sunday	8.3	1.7	11.8	11.3	1.7	1.5	4.6	204.8	48.9	19.0
Monday	8.4	1.2	12.0	11.4	1.5	1.5	4.8	219.7	53.2	19.0
Monday	7.9	1.3	11.3	10.8	1.7	1.4	4.4	219.7	52.7	19.0
Tuesday	7.9	1.3	10.9	10.4	1.7	1.5	4.6	222.8	53.6	19.0
Tuesday	8.0	1.4	10.8	10.3	2.0	1.6	4.6	205.1	49.1	19.0
Wednesday	8.3	1.5	10.2	9.6	2.0	1.7	4.5	189.9	49.7	19.0
Wednesday	8.4	1.0	10.2	9.6	1.6	1.7	4.9	189.8	50.9	19.0
Thursday	8.1	1.3	9.2	8.6	1.8	1.7	4.5	205.1	56.6	19.0
Thursday	8.3	1.4	9.1	8.6	2.0	1.3	4.7	150.7	43.2	19.0
Friday	8.3	1.7	9.1	8.7	1.8	1.7	4.6	210.2	68.2	19.0
Friday	9.2	1.2	10.1	9.7	1.5	1.6	4.6	210.0	58.6	19.0
Saturday	7.4	1.5	8.5	8.0	1.6	1.5	4.6	210.1	70.0	19.0
Saturday	8.8	1.3	9.9	9.4	1.4	1.5	4.6	210.6	66.5	19.0
<b>AVG:</b>	<b>8.3</b>	<b>1.4</b>	<b>10.4</b>	<b>9.8</b>	<b>1.7</b>	<b>1.6</b>	<b>4.6</b>	<b>203.9</b>	<b>55.0</b>	<b>19.0</b>

	Temp (F)	Secchi (Ft)	Notes
Sunday	57.1	3.5	SE-1 had to be operated in manual due to fluctuating tailrace elevations. This time of year when water levels are high it can be difficult to balance the depth of the weir with the entrance differentials
Monday	57.3	3.5	
Tuesday	57.8	3.5	
Wednesday	58.3	3.5	
Thursday	58.6	3.5	
Friday	58.5	3.5	
Saturday	58.1	3.5	
<b>AVG</b>	<b>58.0</b>	<b>3.5</b>	

John Day Dam  
Avian Zones



**JDA Bird Counts: 5/21/23 to 5/27/23**

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)	
21-May	PHFB	17	0	0	22	0	0	0	0	0	0	0	0	0	0	0	16	12	0	0	67	
21-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-May	SW2	0	51	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	53
21-May	SW3	50	62	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	115
<b>Avg/Survey</b>		<b>90</b>		<b>11</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>3</b>		<b>0</b>		<b>14</b>		<b>0</b>		<b>118</b>
22-May	PHFB	3	0	0	17	0	0	0	0	0	0	0	0	0	0	0	12	12	0	0	44	
22-May	SWFB	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
22-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	SW2	0	20	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	24
22-May	SW3	150	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
<b>Avg/Survey</b>		<b>102</b>		<b>11</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>12</b>		<b>0</b>		<b>126</b>
23-May	PHFB	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	14	0	0	25	
23-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23-May	PH3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
23-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	SW2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
23-May	SW3	25	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	47
<b>Avg/Survey</b>		<b>31</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>12</b>		<b>0</b>		<b>43</b>
24-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	
24-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
24-May	PH3	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
24-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	SW3	30	42	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	73
<b>Avg/Survey</b>		<b>44</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>7</b>		<b>0</b>		<b>51</b>



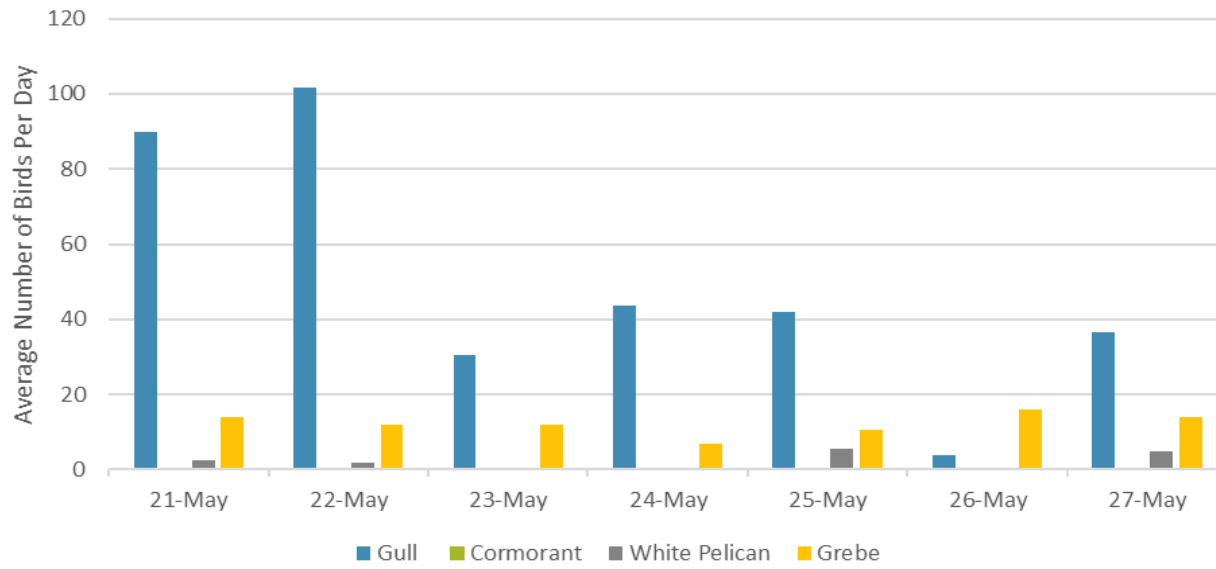
**JDA Bird Counts: 5/21/23 to 5/27/23**

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)	
25-May	PHFB	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	12	9	0	0	22	
25-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-May	PH1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
25-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-May	PH3	26	16	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	48	
25-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	
25-May	SW3	13	27	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	43	
<b>Avg/Survey</b>		<b>42</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>6</b>		<b>0</b>		<b>11</b>		<b>0</b>	<b>59</b>	
26-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	0	0	32	
26-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
26-May	SW3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
<b>Avg/Survey</b>		<b>4</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>16</b>		<b>0</b>	<b>20</b>	
27-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	0	0	28	
27-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27-May	PH1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
27-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
27-May	SW3	51	10	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	71	
<b>Avg/Survey</b>		<b>37</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>5</b>		<b>0</b>		<b>14</b>		<b>0</b>	<b>56</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>696</b>	<b>43</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>171</b>	<b>0</b>	<b>943</b>								
<b>Avg/Survey</b>	<b>50</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>67</b>								

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds

