

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 7/1/2023

Inspection Period: 6/25/2023 thru 7/1/2023



**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.

<b>John Day Dam</b>	Inspection OOC	Criteria Limit	Total Number of Inspections: 14				Temperature:	65.3 F
						Secchi:	5.7 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.)	1.6					

### 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.)	1.4					
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.3					
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.64					
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7					
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.2					
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	visual inspect	next inspection 6/26-6/29						
Turbine trashrack drawdown	0	<1.5', wkly							
Vert barrier screen drawdown	0	<1.2', wkly							
Spill volume	0	per FPP	AVG (kcfs)	49.6	Avg (%)	34.9			
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 June 16 - September 15 condition sampling will occur 3-days/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 #2 RTS 3/20 @ reduced RPMs (55 RPMs) to prolong the repairs. SFL turbine #3 OOS (Philadelphia gear inspected on 2/22 and recommended FOOS - See 23JDA03) - Funding awarded (RTS-Unknown). FOG's removed  
Ladders switched to shad mode on 5/30.

### **Project Operations:**

Current outages: MU4 (ETR: 11/2/23), MU7 (ETR: 7/31/28), MU8 (ETR: 1/10/24), MU10 (ETR: 11/15/23)

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

Weekly Average Tailwater TDG: 107.72

### **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).

Calibration: All gauges within the 0.3' criteria.

### **Bird Data:**

Pelican foraging is increasing within the tailrace (average ~78/inspection), Grebe numbers are holding steady in the forebay (~6/inspection), Gull numbers decreased this week with most foraging activity located in PH3 and SW3 zones (~4/inspection).

There are ~100 pelicans hanging around Preacher's Island

19 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)

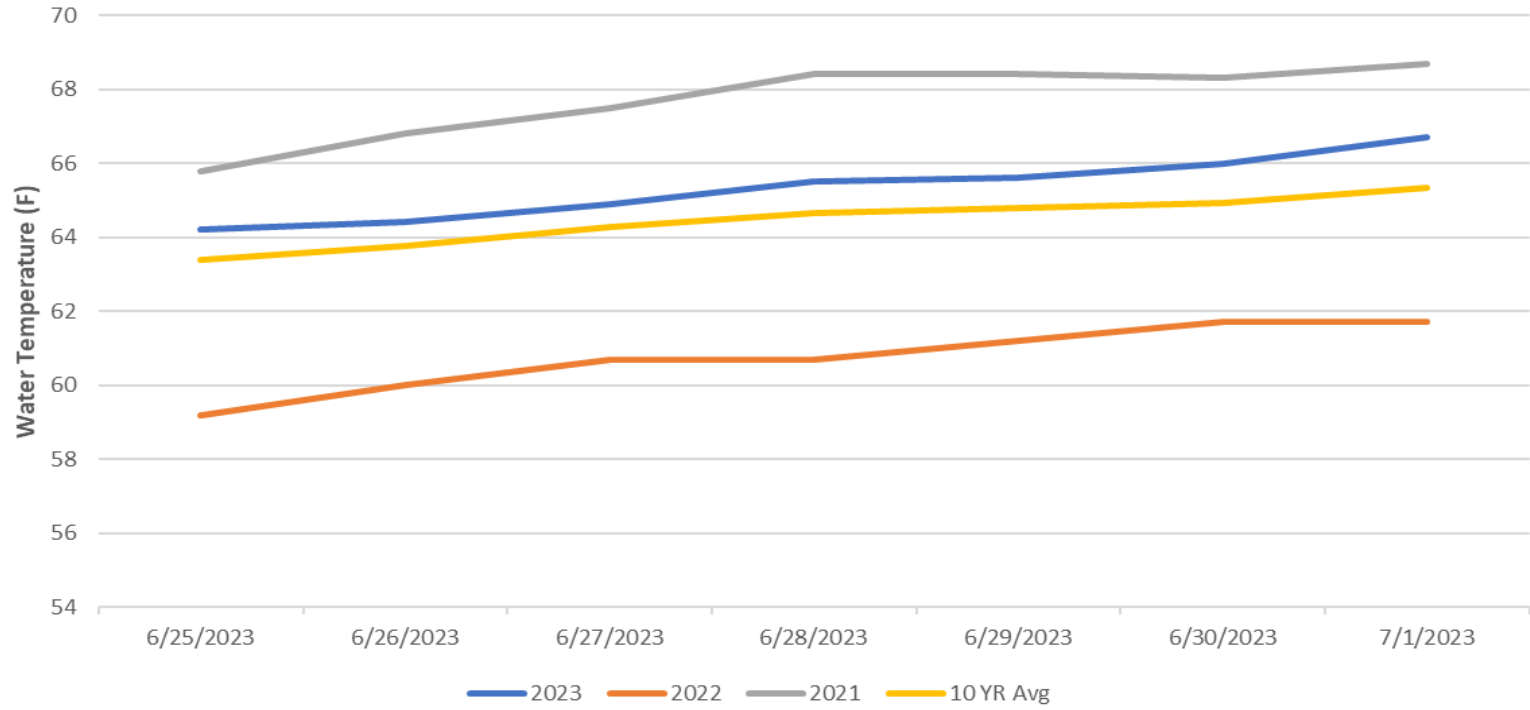
PSMFC smolt condition monitoring began 4/3/23 (currently 3-days/week)

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

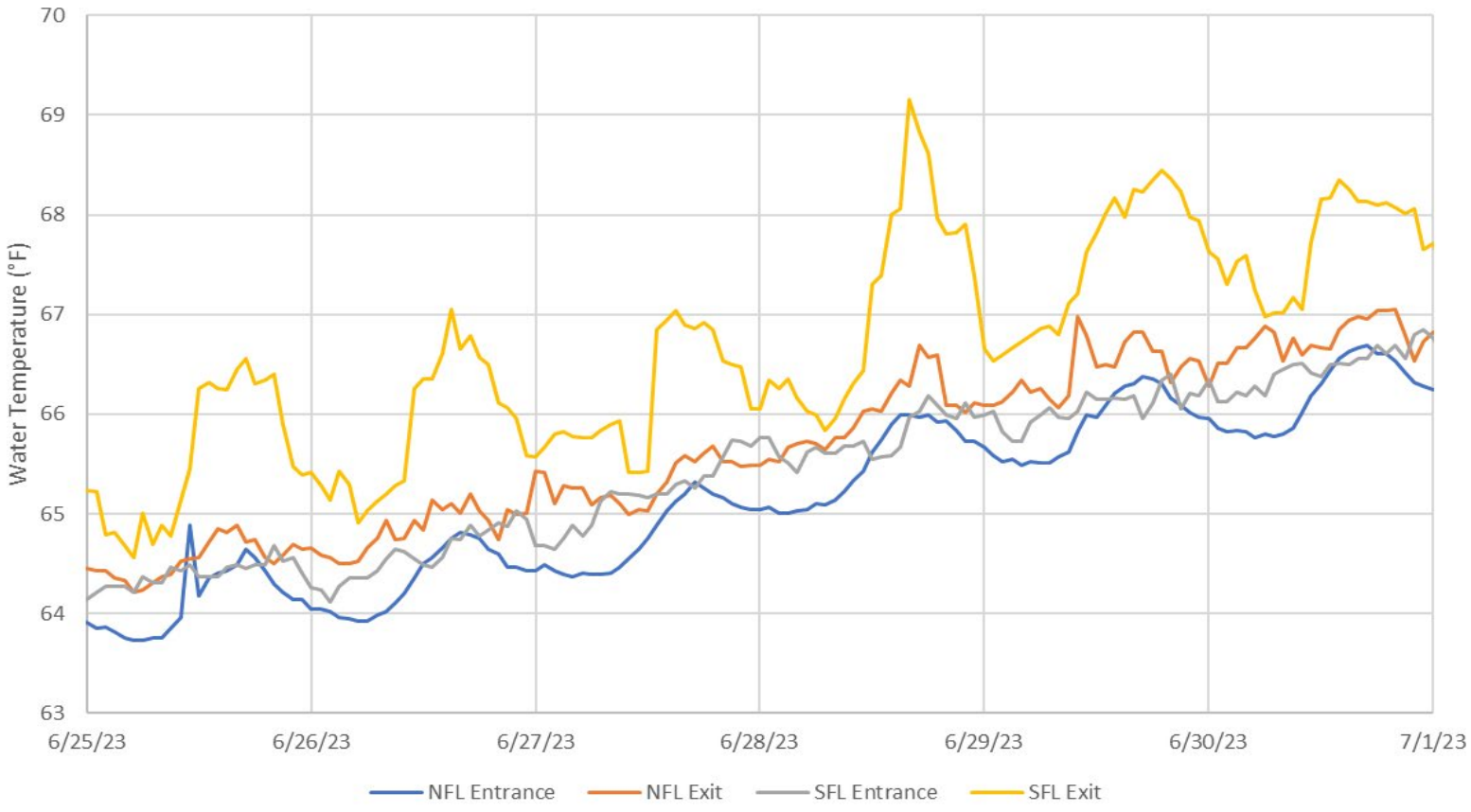
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation started on 6/12/23. NFL LPS collection ended on 6/20/23 due to safety concerns (see 23JDA24)

### 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)
6/26/2023	Unit 4	2.54	55,55,0	160.0
6/26/2023	Unit 12	2.40	55,55,0	160.0
6/28/2023	Unit 4	2.78	55,55,0	159.8
6/28/2023	Unit 12	2.77	55,55,0	159.8
7/1/2023	Unit 4	2.73	55,55,0	159.2
7/1/2023	Unit 12	2.64	55,55,0	159.2

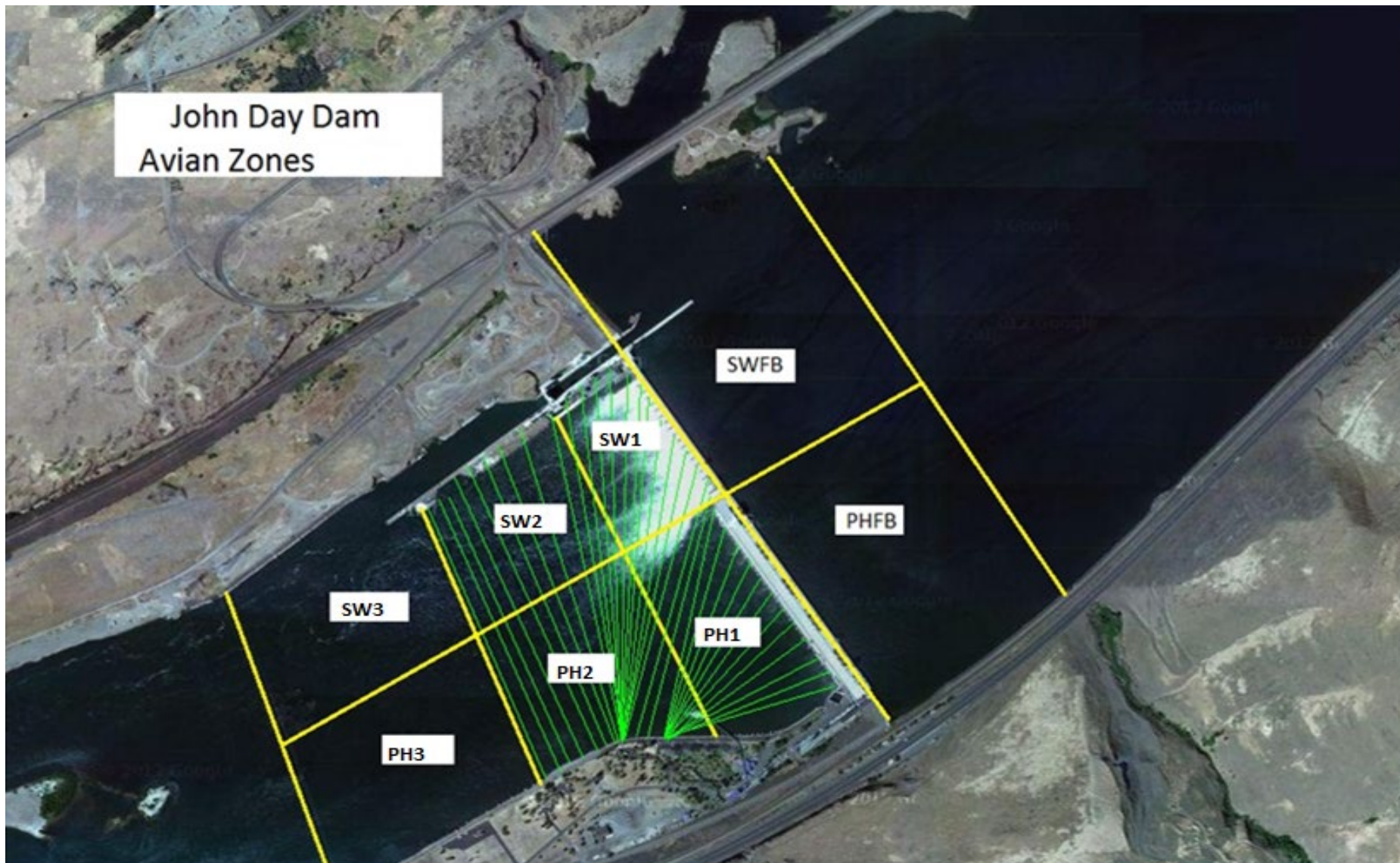
Average Weekly Velocity (ft/sec)	2.64
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## JOHN DAY WEEKLY AVERAGES

	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>	8.2	1.5	8.2	8.2	1.8	1.7	4.5	42.2	34.9	15.0
<b>Sunday</b>	8.4	1.4	8.6	8.6	1.8	1.5	4.6	47.1	34.4	17.0
<b>Monday</b>	8.3	1.4	8.1	8.1	1.7	1.7	4.6	46.9	34.6	17.0
<b>Monday</b>	8.7	1.3	8.4	8.4	1.9	1.6	4.6	54.1	34.7	19.0
<b>Tuesday</b>	8.5	1.3	8.5	8.5	1.6	1.7	4.5	52.0	34.5	19.0
<b>Tuesday</b>	8.3	1.4	8.1	8.1	2.0	1.5	4.7	51.9	34.1	19.0
<b>Wednesday</b>	8.2	1.4	10.3	10.1	1.5	1.5	4.7	50.9	35.8	19.0
<b>Wednesday</b>	8.0	1.6	9.8	9.6	1.7	1.5	4.6	50.9	34.6	19.0
<b>Thursday</b>	8.2	1.4	10.2	10.0	1.6	1.7	4.6	53.2	34.4	18.0
<b>Thursday</b>	8.3	1.3	10.3	10.1	1.6	1.6	4.5	59.9	35.3	19.0
<b>Friday</b>	8.1	1.3	9.8	9.6	1.6	1.6	4.5	52.4	34.4	19.0
<b>Friday</b>	8.1	1.4	10.2	10.0	1.6	1.5	4.4	52.4	35.1	19.0
<b>Saturday</b>	8.2	1.3	9.1	8.9	1.7	1.7	4.5	40.1	35.8	14.0
<b>Saturday</b>	8.1	1.4	9.3	9.1	1.7	1.6	4.5	40.1	35.4	13.0
<b>AVG:</b>	<b>8.3</b>	<b>1.4</b>	<b>9.2</b>	<b>9.1</b>	<b>1.7</b>	<b>1.6</b>	<b>4.6</b>	<b>49.6</b>	<b>34.9</b>	<b>17.6</b>

	Temp (F)	Secchi (Ft)	Notes
<b>Sunday</b>	64.2	5.0	
<b>Monday</b>	64.4	5.0	
<b>Tuesday</b>	64.9	6.0	
<b>Wednesday</b>	65.5	6.0	
<b>Thursday</b>	65.6	6.0	
<b>Friday</b>	66.0	6.0	
<b>Saturday</b>	66.7	6.0	
<b>AVG</b>	<b>65.3</b>	<b>5.7</b>	

John Day Dam  
Avian Zones



**JDA Bird Counts: 6/25/23 to 7/1/23**

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-Jun	PHFB	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	6	0	0	16
25-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
25-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
25-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	19	9	0	0	0	0	0	0	28
25-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	20	17	0	0	0	0	0	0	37
25-Jun	SW3	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0	0	0	30
<b>Avg/Survey</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>54</b>		<b>0</b>		<b>6</b>		<b>0</b>		<b>61</b>
26-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	6	0	0	13
26-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	35	40	0	0	0	0	0	0	75
26-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	25	10	0	0	0	0	0	0	35
26-Jun	SW3	0	0	0	0	0	0	0	0	0	0	0	0	15	10	10	0	0	0	0	0	35
<b>Avg/Survey</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>68</b>		<b>5</b>		<b>6</b>		<b>0</b>		<b>79</b>
27-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	7	0	0	13
27-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun	SW1	2	0	0	0	0	0	0	0	0	0	0	0	17	31	0	0	0	0	0	0	50
27-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	53	9	0	0	0	0	0	0	62
27-Jun	SW3	0	0	0	0	0	0	0	0	0	0	0	0	9	11	0	0	0	0	0	0	20
<b>Avg/Survey</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>65</b>		<b>0</b>		<b>7</b>		<b>0</b>		<b>73</b>
28-Jun	PHFB	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	6	5	0	0	16
28-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18
28-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11
28-Jun	PH3	0	4	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	9
28-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	38	22	0	0	0	0	0	0	60
28-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	0	0	0	17
28-Jun	SW3	0	3	0	0	0	0	0	0	0	0	0	0	25	0	4	0	0	0	0	0	32
<b>Avg/Survey</b>		<b>5</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>68</b>		<b>2</b>		<b>6</b>		<b>0</b>		<b>82</b>

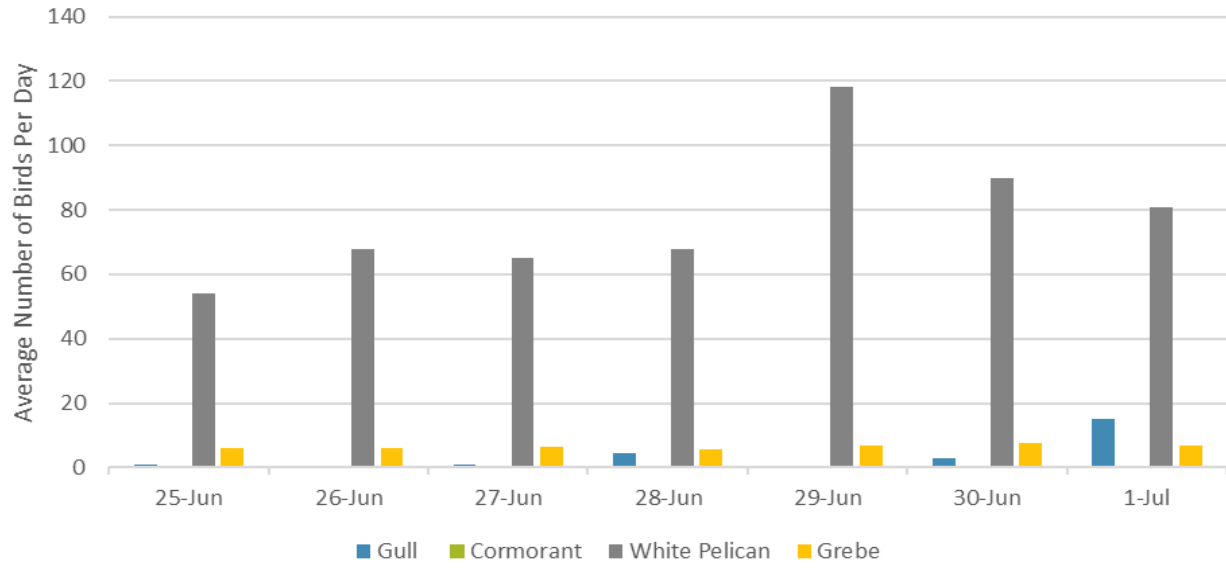


**JDA Bird Counts: 6/25/23 to 7/1/23**

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)	
29-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	8	6	0	0	22
29-Jun	SWFB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
29-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
29-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	79	53	0	0	0	0	0	0	132
29-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	18	34	0	0	0	0	0	0	52
29-Jun	SW3	0	0	0	0	0	0	0	0	0	0	0	0	22	21	0	0	0	0	0	0	43
<b>Avg/Survey</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>118</b>		<b>0</b>		<b>7</b>		<b>0</b>		<b>126</b>
30-Jun	PHFB	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	8	7	0	0	19
30-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
30-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jun	SW1	5	0	0	0	0	0	0	0	0	0	0	0	78	47	0	0	0	0	0	0	130
30-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	19	18	0	0	0	0	0	0	37
30-Jun	SW3	0	0	0	0	0	0	0	0	0	0	0	0	7	9	0	0	0	0	0	0	16
<b>Avg/Survey</b>		<b>3</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>90</b>		<b>0</b>		<b>8</b>		<b>0</b>		<b>102</b>
1-Jul	PHFB	1	5	0	0	0	0	0	0	0	0	0	0	6	5	0	0	7	7	0	0	31
1-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
1-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	0	0	0	25
1-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
1-Jul	SW1	12	12	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0	0	0	84
1-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0	0	0	30
1-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	15	15	0	0	0	0	0	0	30
<b>Avg/Survey</b>		<b>15</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>81</b>		<b>0</b>		<b>7</b>		<b>0</b>		<b>103</b>
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
<b>Weekly Total</b>		<b>50</b>		<b>5</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>1088</b>		<b>14</b>		<b>91</b>		<b>0</b>		<b>1248</b>
<b>Avg/Survey</b>		<b>4</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>78</b>		<b>1</b>		<b>7</b>		<b>0</b>		<b>89</b>

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds

