

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 7/22/2023

Inspection Period: 7/16/2023 thru 7/22/2023



**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:	71.6 F
						Secchi:	6.0 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.)	1.5			
<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.)	1.3			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.2			
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.)	9.6			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.4			
<b>JUVENILE PASSAGE</b>							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.5			
Submersible traveling screens	0	visual inspect	next inspection 7/24-7/27				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	47.1	Avg (%)	34.8	
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 2023 sampling season on April 3rd for condition monitoring only. High water temperature protocol went into effect on July 6 when water temperatures exceeded 70F. Sampling will occur on Mondays and Thursdays unless water temperature drops below 69.5, at which point sampling will resume on Monday, Wednesday, and Fridays until September 15.

### **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 salmon mode on 7/11.

### **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: 114.10

### **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:**

Slight drop in pelican foraging within the tailrace this week (average ~121/inspection), Grebe numbers are decreasing (~1/inspection), Gull numbers have slightly increased this week (~9/inspection).

There are ~400 pelicans hanging around Preacher's Island

19 of 125 avian lines down

### **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)

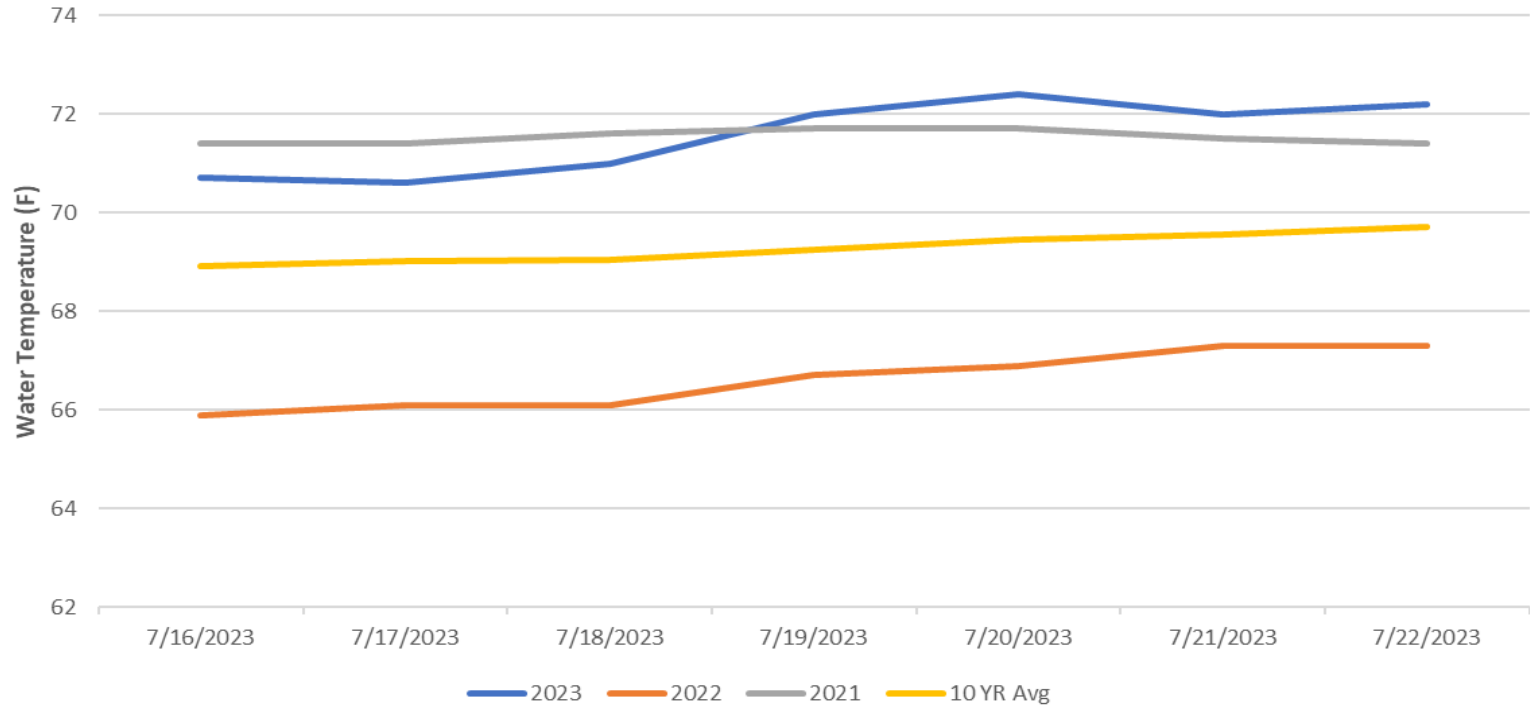
PSMFC smolt condition monitoring began 4/3/23 (currently 2-days/week)

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

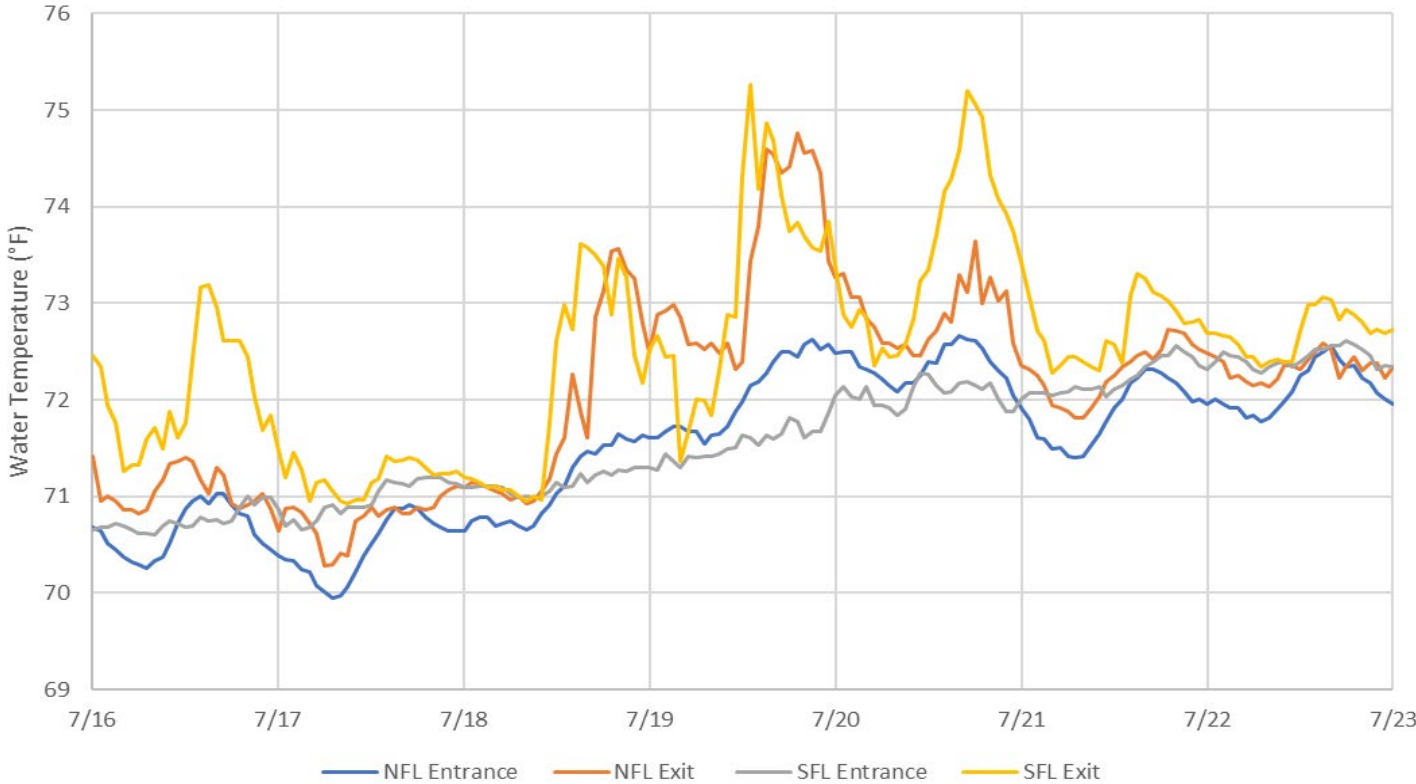
WDFW currently performing NPMP dam angling (started 5/8/23)

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)
7/19/2023	Unit 4	2.72	55,55,0	160.0
7/19/2023	Unit 12	2.65	55,55,0	160.0
7/21/2023	Unit 4	2.66	55,55,0	159.3
7/21/2023	Unit 12	2.62	55,55,0	159.3
7/22/2023	Unit 4	2.65	55,55,0	159.6
7/22/2023	Unit 12	2.63	55,55,0	159.6

Average Weekly Velocity (ft/sec)	2.66
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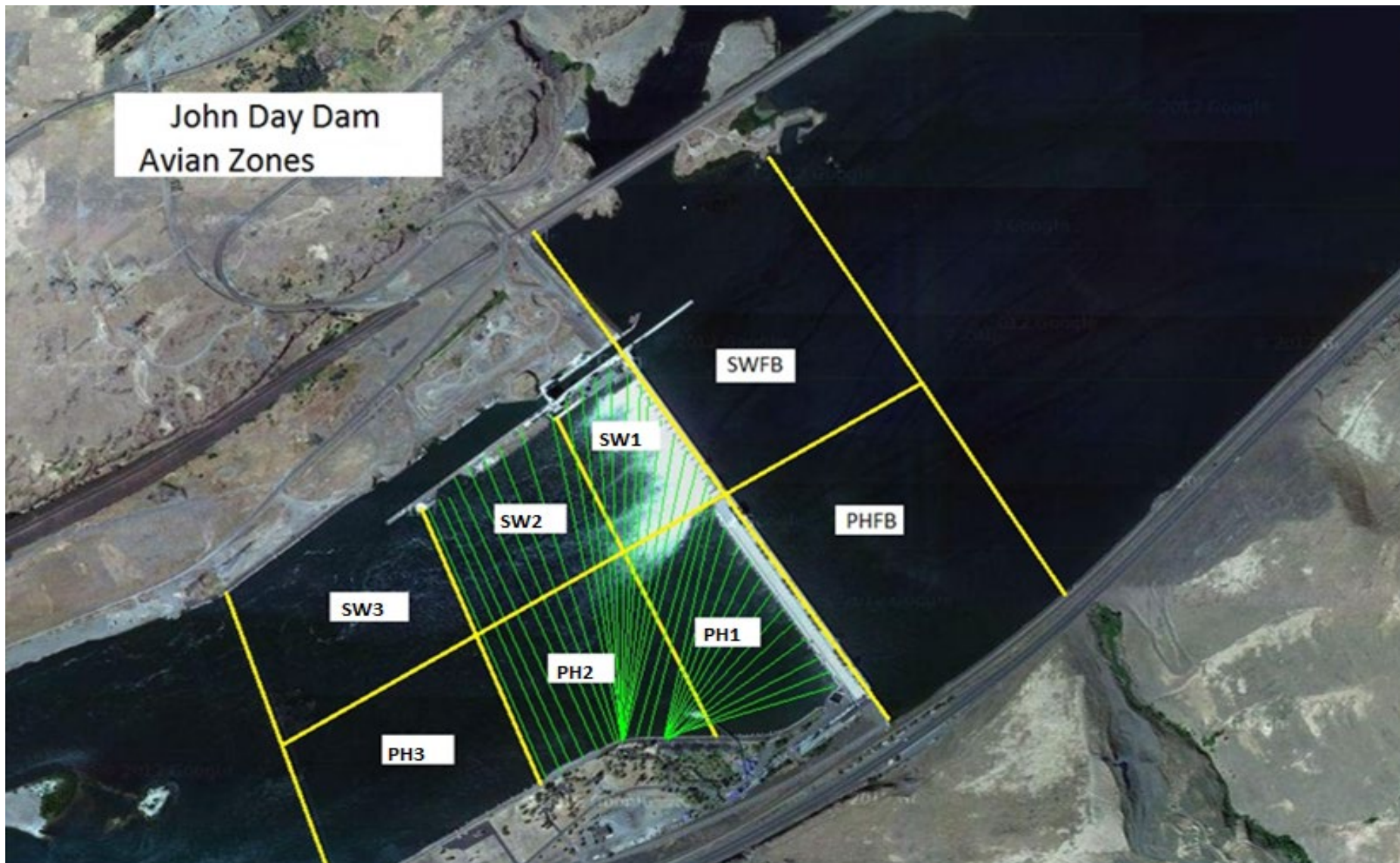
## JOHN DAY WEEKLY AVERAGES

	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	1.4	9.5	9.3	1.8	1.5	4.6	42.0	34.7	16.0
<b>Sunday</b>	8.2	1.3	10.0	9.8	1.7	1.5	4.6	48.8	33.9	18.0
<b>Monday</b>	8.5	1.4	8.7	8.4	1.7	1.5	4.5	55.2	35.0	19.0
<b>Monday</b>	8.2	1.4	9.9	9.7	1.5	1.5	4.5	47.1	35.0	18.0
<b>Tuesday</b>	8.3	1.4	9.9	9.7	1.5	1.5	4.6	52.2	34.5	19.0
<b>Tuesday</b>	8.2	1.4	9.8	9.6	1.6	1.4	4.6			
<b>Wednesday</b>	8.5	1.3	9.8	9.6	1.6	1.5	4.5	47.2	34.7	16.0
<b>Wednesday</b>	8.5	1.3	10.1	10.2	1.5	1.3	4.6	56.3	35.2	19.0
<b>Thursday</b>	8.1	1.3	9.4	9.2	1.7	1.5	4.5	47.2	35.4	16.0
<b>Thursday</b>	8.1	1.3	9.5	9.3	1.7	1.6	4.6	56.2	35.0	19.0
<b>Friday</b>	8.0	1.4	9.0	8.8	1.9	1.6	4.6	42.0	35.0	14.0
<b>Friday</b>	8.1	1.3	9.2	9.0	1.6	1.5	4.5	41.9	34.9	14.0
<b>Saturday</b>	8.3	1.3	9.5	9.3	1.7	1.5	4.4	38.5	35.5	13.0
<b>Saturday</b>	8.3	1.2	9.7	9.5	1.8	1.4	4.5	38.3	34.2	13.0
<b>AVG:</b>	<b>8.2</b>	<b>1.3</b>	<b>9.6</b>	<b>9.4</b>	<b>1.7</b>	<b>1.5</b>	<b>4.5</b>	<b>47.1</b>	<b>34.8</b>	<b>16.5</b>

	Temp (F)	Secchi (Ft)	Notes
<b>Sunday</b>	70.7	6.0	
<b>Monday</b>	70.6	6.0	
<b>Tuesday</b>	71.0	6.0	
<b>Wednesday</b>	72.0	6.0	
<b>Thursday</b>	72.4	6.0	
<b>Friday</b>	72.0	6.0	
<b>Saturday</b>	72.2	6.0	
<b>AVG</b>	<b>71.6</b>	<b>6.0</b>	



John Day Dam  
Avian Zones





**JDA Bird Counts: 7/16/23 to 7/22/23**

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)	
16-Jul	PHFB	0	0	18	6	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	28
16-Jul	SWFB	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
16-Jul	PH1	6	8	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	26
16-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	15
16-Jul	PH3	0	1	0	0	0	0	0	0	0	0	0	0	40	20	0	0	0	0	0	0	61
16-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27
16-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	25
16-Jul	SW3	0	11	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	31
<b>Avg/Survey</b>		<b>13</b>		<b>15</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>82</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>110</b>
17-Jul	PHFB	0	0	25	0	0	0	0	0	0	0	0	0	2	1	0	0	5	3	0	0	36
17-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jul	PH1	28	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	31
17-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	0	11
17-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	15	6	0	0	0	0	0	0	21
17-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	11	6	0	0	0	0	0	0	17
17-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	24	15	0	0	0	0	0	0	39
17-Jul	SW3	3	0	0	0	0	0	0	0	0	0	0	0	41	18	0	0	0	0	0	0	62
<b>Avg/Survey</b>		<b>16</b>		<b>13</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>77</b>		<b>0</b>		<b>4</b>		<b>0</b>		<b>109</b>
18-Jul	PHFB	0	0	5	12	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	19
18-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jul	PH1	3	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	9
18-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	22	8	0	0	0	0	0	0	30
18-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	0	0	0	0	18
18-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	12	21	0	0	0	0	0	0	33
18-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	66	23	0	0	0	0	0	0	89
18-Jul	SW3	0	5	0	0	0	0	0	0	0	0	0	0	20	48	0	0	0	0	0	0	73
<b>Avg/Survey</b>		<b>4</b>		<b>9</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>123</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>136</b>
19-Jul	PHFB	0	0	3	3	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	14
19-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Jul	PH1	2	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	9
19-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	15	16	0	0	0	0	0	0	31
19-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	112	22	0	0	0	0	0	0	134
19-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	12	5	0	0	0	0	0	0	17
19-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	108	10	0	0	0	0	0	0	118
19-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	57	45	30	0	0	0	0	0	132
<b>Avg/Survey</b>		<b>1</b>		<b>3</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>209</b>		<b>15</b>		<b>0</b>		<b>0</b>		<b>228</b>

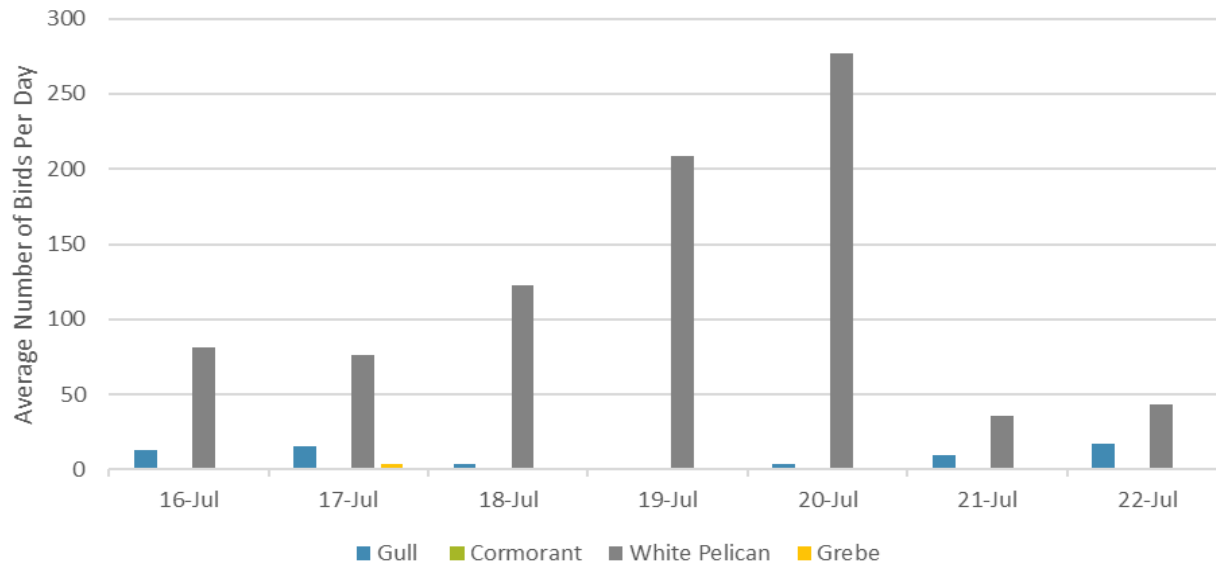
**JDA Bird Counts: 7/16/23 to 7/22/23**

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)	
20-Jul	PHFB	5	0	0	21	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	35
20-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Jul	PH1	0	2	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	0	0	0	36
20-Jul	PH2	1	0	0	0	0	0	0	0	0	0	0	0	110	18	0	0	0	0	0	0	129
20-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	45	60	0	0	0	0	0	0	105
20-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	0	0	0	0	44
20-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	87
20-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	60	87	0	22	0	0	0	0	169
<b>Avg/Survey</b>		<b>4</b>		<b>11</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>277</b>		<b>11</b>		<b>0</b>		<b>0</b>		<b>303</b>
21-Jul	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Jul	PH1	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
21-Jul	PH2	2	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	0	0	11
21-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	12	5	0	0	0	0	0	0	17
21-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
21-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4
21-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	30	10	0	23	0	0	0	0	63
<b>Avg/Survey</b>		<b>10</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>36</b>		<b>12</b>		<b>0</b>		<b>0</b>		<b>57</b>
22-Jul	PHFB	35	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	43
22-Jul	SWFB	0	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
22-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20
22-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
22-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	20	0	30	0	0	0	0	0	50
22-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	20	10	30	0	0	0	0	0	60
<b>Avg/Survey</b>		<b>18</b>		<b>18</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>43</b>		<b>30</b>		<b>0</b>		<b>0</b>		<b>108</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>129</b>	<b>134</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>1689</b>	<b>136</b>	<b>8</b>	<b>0</b>	<b>2096</b>				
<b>Avg/Survey</b>	<b>9</b>	<b>10</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>121</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>150</b>				

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds

