

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 9/23/2023

Inspection Period: 9/17/2023 thru 9/23/2023



**US Army Corps  
of Engineers**  
Portland District

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

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:	68.7 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.)	2.53			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7			
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	visual inspect	next inspection 9/25-9/28				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	1.6	Avg (%)	2.5	
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 concluded the 2023 sampling season on September 15th.

### **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

### **Project Operations:**

Current outages: MU4 (ETR: 11/2/23), MU7 (ETR: 7/31/28), MU10 (ETR: 11/15/23), MU15 (ETR: 10/19/23), MU16 (ETR: 9/26/23)

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

From Aug. 15 - Nov. 30, spillbay #2 will be open 1-stop (approximately 1.6 kcfs), during daylight hours, for NFL adult fish attraction.

Weekly Average Tailwater TDG: 100.7

### **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 (occurred 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:**

Decrease in pelican foraging within the tailrace this week (average ~1/inspection), foraging gull numbers have increased slightly this week (~9/inspection), foraging grebes increased slightly this week (average ~6/inspection), and foraging cormorants (average ~1/inspection), observed this week.

There are ~35 pelicans hanging around Preacher's Island

20 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)

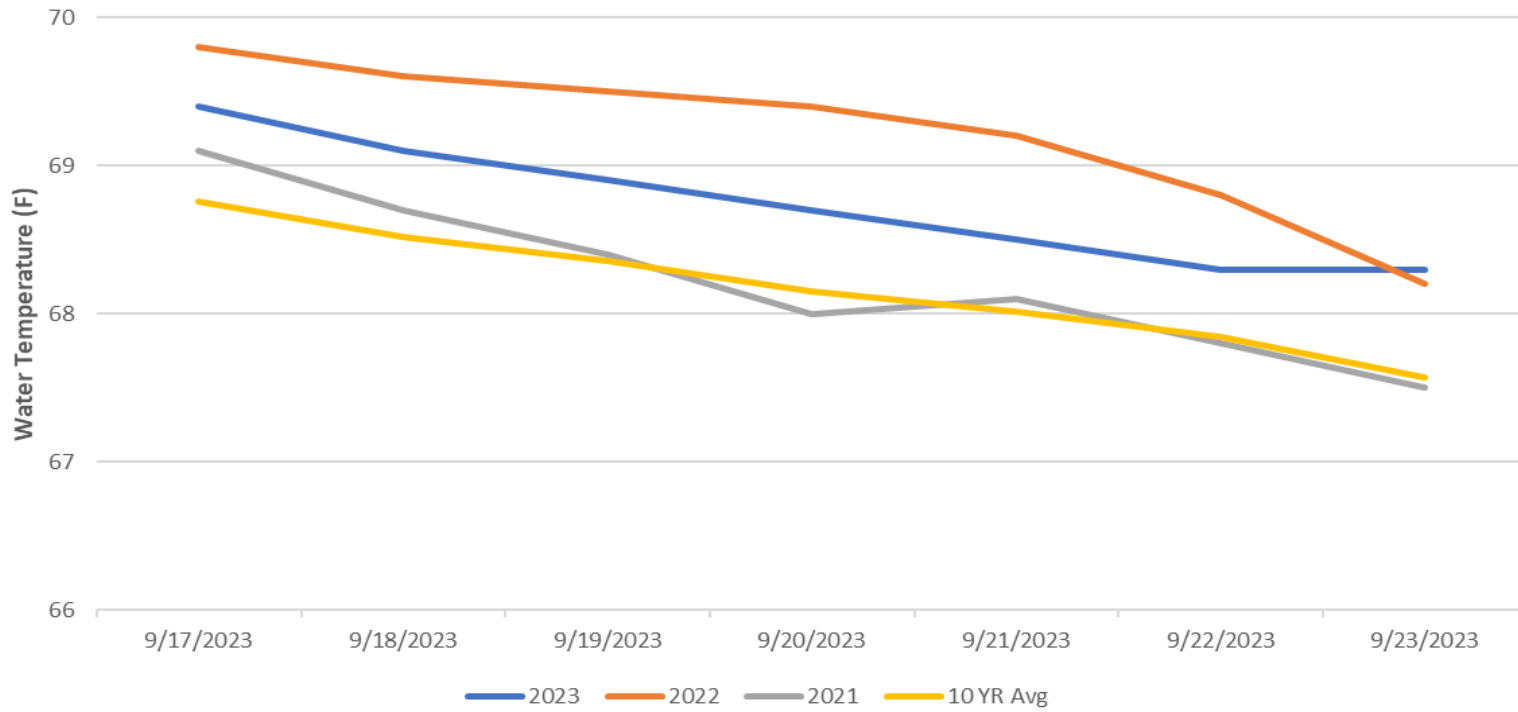
PSMFC smolt condition monitoring ended 9/15/23.

USDA hazing started on 04/16/23 and ended 07/31/23

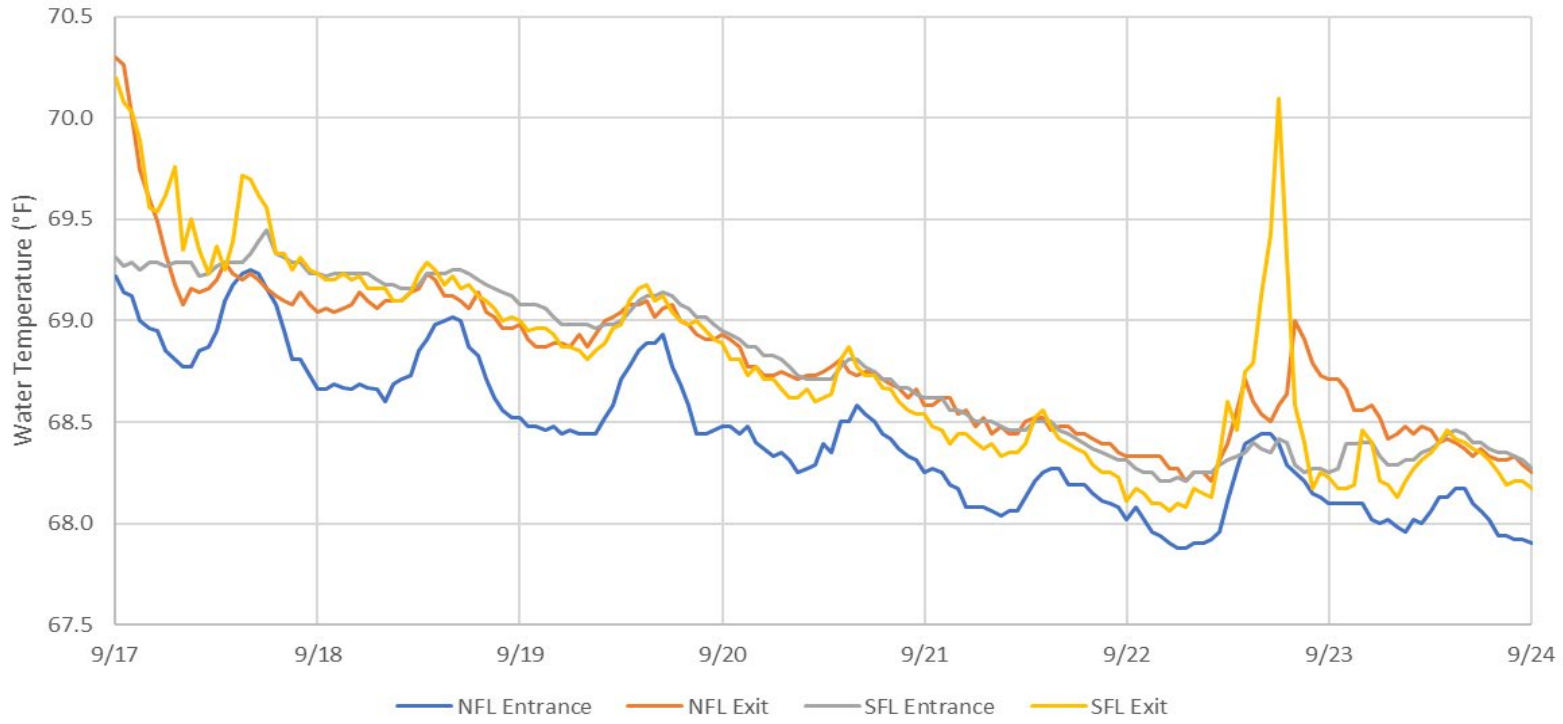
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation ended on 9/6/23.

### 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)
9/18/2023	Unit 4	2.47	55,55,0	158.7
9/18/2023	Unit 12	2.51	55,55,0	158.7
9/20/2023	Unit 4	2.59	55,55,0	159.3
9/20/2023	Unit 12	2.61	55,55,0	159.3
9/23/2023	Unit 4	2.53	55,55,0	158.5
9/23/2023	Unit 12	2.48	55,55,0	158.5

Average Weekly Velocity (ft/sec)	2.53
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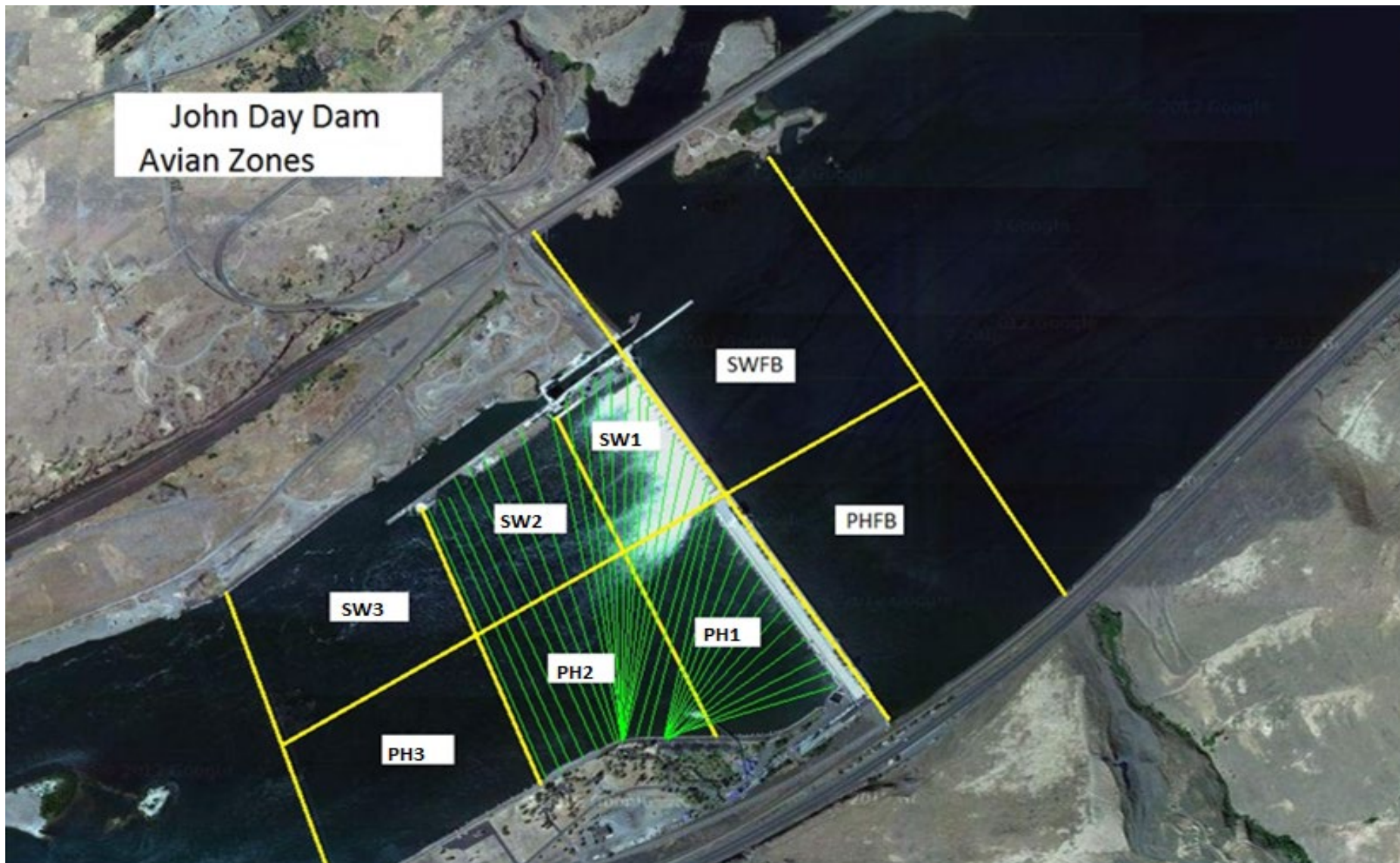
## JOHN DAY WEEKLY AVERAGES

	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	1.3	9.2	9.2	1.7	1.5	4.6	1.6	2.8	1.0
<b>Sunday</b>	8.3	1.3	9.3	9.3	1.8	1.4	4.5	1.6	2.4	1.0
<b>Monday</b>	8.2	1.1	8.3	8.3	1.8	1.8	4.5	1.6	2.8	1.0
<b>Monday</b>	8.2	1.3	8.7	8.7	1.8	1.6	4.5	1.6	2.5	1.0
<b>Tuesday</b>	8.1	1.2	8.6	8.6	1.6	1.0	4.5	1.6	2.8	1.0
<b>Tuesday</b>	8.1	1.2	8.9	8.9	1.8	1.5	4.6	1.6	2.2	1.0
<b>Wednesday</b>	8.2	1.4	8.9	8.9	1.7	1.5	4.5	1.6	2.6	1.0
<b>Wednesday</b>	8.6	1.3	9.2	9.2	1.6	1.4	4.6	1.6	1.9	1.0
<b>Thursday</b>	8.2	1.2	9.1	9.1	1.6	1.4	4.5	1.6	2.6	1.0
<b>Thursday</b>	8.0	1.5	8.9	8.9	1.7	1.5	4.7	1.6	2.5	1.0
<b>Friday</b>	8.2	1.5	8.4	8.4	1.8	1.7	4.6	1.6	2.6	1.0
<b>Friday</b>	8.3	1.2	8.4	8.4	1.7	1.4	4.5	1.6	2.6	1.0
<b>Saturday</b>	8.3	1.3	8.2	8.2	1.8	1.6	4.6	1.6	2.7	1.0
<b>Saturday</b>	8.2	1.4	8.4	8.4	1.7	1.6	4.6	1.6	2.5	8.2
<b>AVG:</b>	<b>8.2</b>	<b>1.3</b>	<b>8.8</b>	<b>8.8</b>	<b>1.7</b>	<b>1.5</b>	<b>4.6</b>	<b>1.6</b>	<b>2.5</b>	<b>1.5</b>

	Temp (F)	Secchi (Ft)	Notes
<b>Sunday</b>	69.4	6.0	
<b>Monday</b>	69.1	6.0	
<b>Tuesday</b>	68.9	6.0	
<b>Wednesday</b>	68.7	6.0	
<b>Thursday</b>	68.5	6.0	
<b>Friday</b>	68.3	6.0	
<b>Saturday</b>	68.3	6.0	
<b>AVG</b>	<b>68.7</b>	<b>6.0</b>	



John Day Dam  
Avian Zones





**JDA Bird Counts: 9/17/23 to 9/23/23**

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)	
17-Sep	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
17-Sep	SWFB	0	0	150	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	306
17-Sep	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Sep	PH2	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
17-Sep	PH3	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
17-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Sep	SW2	0	0	1	0	0	0	25	30	0	0	0	0	0	0	0	0	0	0	0	0	56
17-Sep	SW3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Avg/Survey</b>		<b>7</b>		<b>154</b>		<b>0</b>		<b>29</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>190</b>
18-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Sep	SWFB	0	0	30	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240
18-Sep	PH1	20	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
18-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Sep	SW2	0	0	0	0	0	0	20	2	0	0	0	0	0	0	0	0	0	0	0	0	22
18-Sep	SW3	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
<b>Avg/Survey</b>		<b>11</b>		<b>120</b>		<b>1</b>		<b>16</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>148</b>
19-Sep	PHFB	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	12	14	0	0	34
19-Sep	SWFB	0	0	175	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350
19-Sep	PH1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
19-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Sep	SW2	1	0	0	0	0	0	15	5	0	0	0	0	0	0	0	0	0	0	0	0	21
19-Sep	SW3	0	0	0	0	0	0	10	5	0	0	0	0	0	0	0	0	0	0	0	0	15
<b>Avg/Survey</b>		<b>2</b>		<b>175</b>		<b>2</b>		<b>22</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>13</b>		<b>0</b>		<b>213</b>
20-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9
20-Sep	SWFB	0	0	60	207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	267
20-Sep	PH1	0	12	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
20-Sep	PH2	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
20-Sep	PH3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
20-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Sep	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Sep	SW3	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
<b>Avg/Survey</b>		<b>14</b>		<b>134</b>		<b>1</b>		<b>3</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>5</b>		<b>0</b>		<b>155</b>

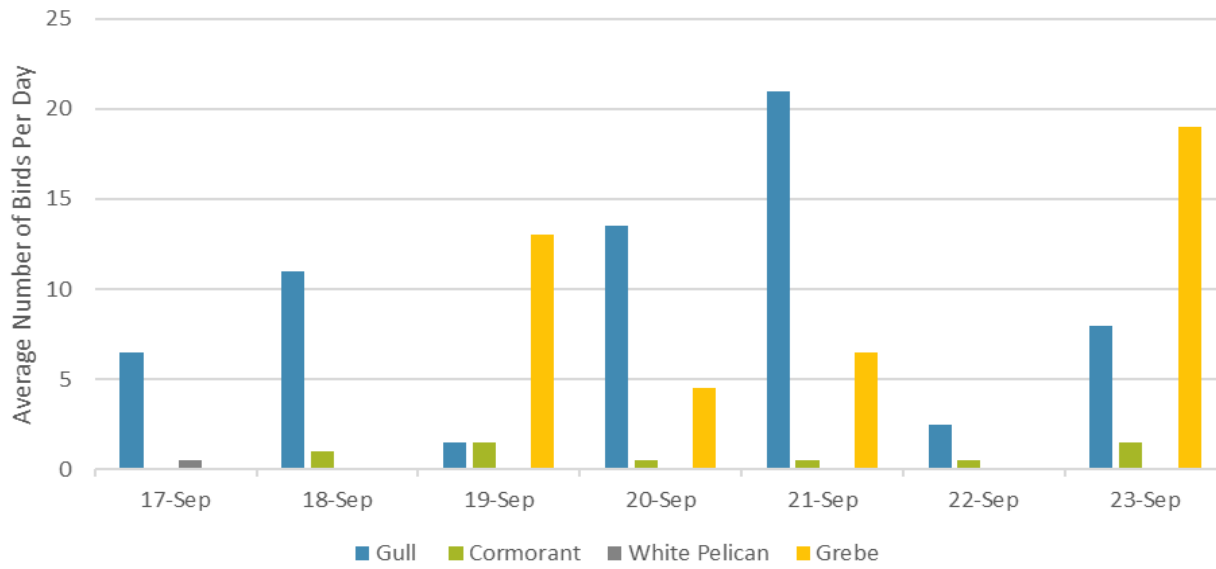
**JDA Bird Counts: 9/17/23 to 9/23/23**

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-Sep	PHFB	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	13	0	0	0	33
21-Sep	SWFB	0	0	227	288	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	515
21-Sep	PH1	3	24	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
21-Sep	PH2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
21-Sep	PH3	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
21-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
21-Sep	SW2	0	0	0	0	0	0	18	42	0	0	0	0	0	0	0	0	0	0	0	60	
21-Sep	SW3	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5	
<b>Avg/Survey</b>		<b>21</b>		<b>258</b>		<b>1</b>		<b>43</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>7</b>		<b>0</b>	<b>328</b>	
22-Sep	PHFB	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	14	
22-Sep	SWFB	0	0	150	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275	
22-Sep	PH1	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
22-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
22-Sep	SW2	0	0	1	0	0	0	22	50	0	0	0	0	0	0	0	0	0	0	0	73	
22-Sep	SW3	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	7	
<b>Avg/Survey</b>		<b>3</b>		<b>138</b>		<b>1</b>		<b>47</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>	<b>188</b>	
23-Sep	PHFB	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	19	19	0	0	44	
23-Sep	SWFB	0	0	75	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	
23-Sep	PH1	12	4	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19	
23-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23-Sep	SW2	0	0	3	0	0	0	22	45	0	0	0	0	0	0	0	0	0	0	0	70	
23-Sep	SW3	0	0	5	0	0	0	12	15	0	0	0	0	0	0	0	0	0	0	0	32	
<b>Avg/Survey</b>		<b>8</b>		<b>104</b>		<b>2</b>		<b>50</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>19</b>		<b>0</b>	<b>183</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>128</b>	<b>2163</b>	<b>11</b>	<b>417</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>86</b>	<b>0</b>	<b>2806</b>										
<b>Avg/Survey</b>	<b>9</b>	<b>155</b>	<b>1</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>200</b>										

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds

