

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 9/9/2023

Inspection Period: 9/3/2023 thru 9/9/2023



**US Army Corps  
of Engineers**  
Portland District

JD/WC Project-Fisheries  
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Rufus, Oregon 97050  
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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.

<b>John Day Dam</b>	Inspection OOC	Criteria Limit	Total Number of Inspections: 14				Temperature:	69.5 F
						Secchi:	6.0 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.)	8.4				
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.55				
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7				
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.0				
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.0				

### JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6				
Submersible traveling screens	0	visual inspect	next inspection					
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 (%)	2.0		
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. Water temperatures dropped below 69.5 on September 7th and sampling has resumed on Mondays, Wednesdays, and Fridays until 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), MU9-12 (Line outage, ETR: 9/14/23)

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

"Late Summer Spill" ended on 8/31 and TSW's were also removed on 8/31. 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: 101.6

### **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:**

Decrease in pelican foraging within the tailrace this week (average ~2/inspection), foraging gull numbers have increased slightly this week (~25/inspection), no foraging grebes, and foraging cormorants (~1/inspection) observed this week.

There are ~25 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)

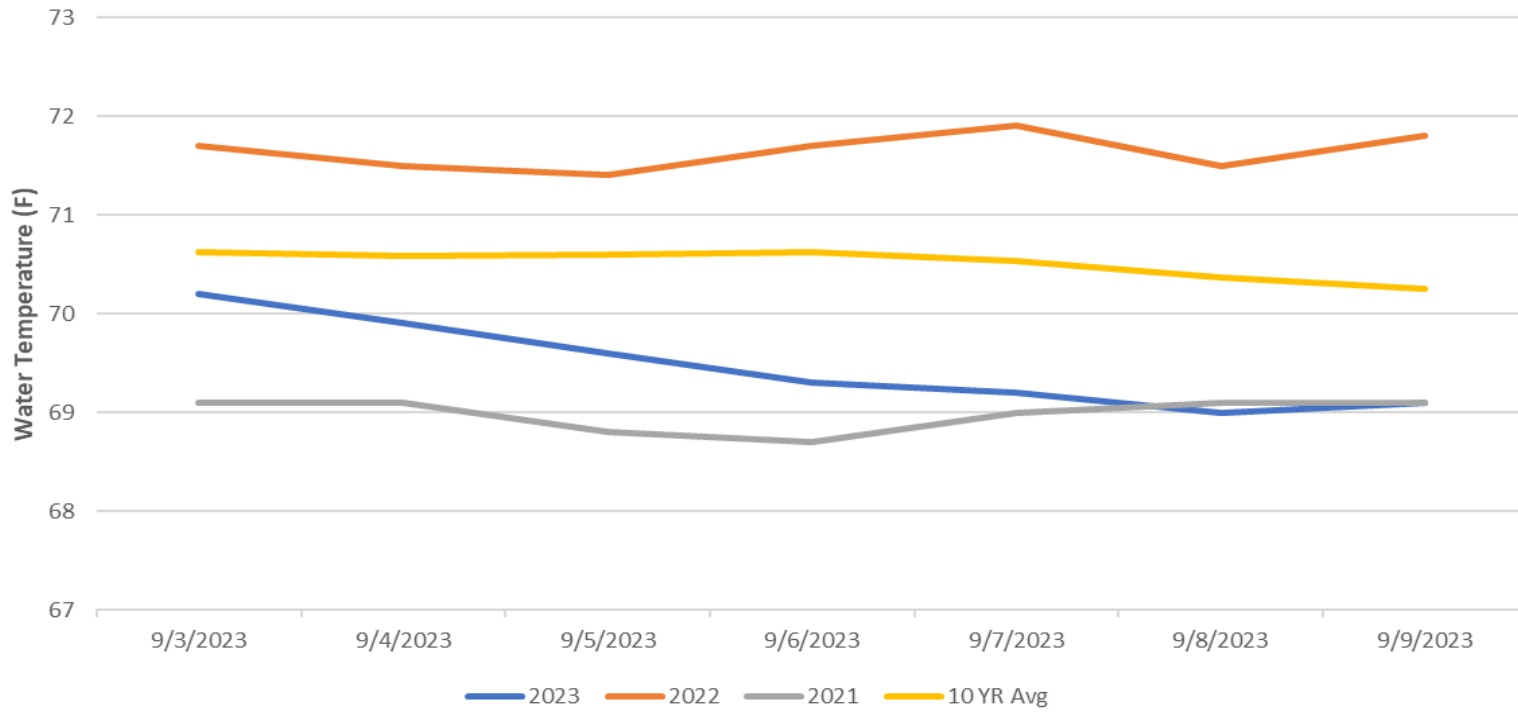
PSMFC smolt condition monitoring began 4/3/23 (currently 2-days/week)

USDA hazing ended 07/31/23

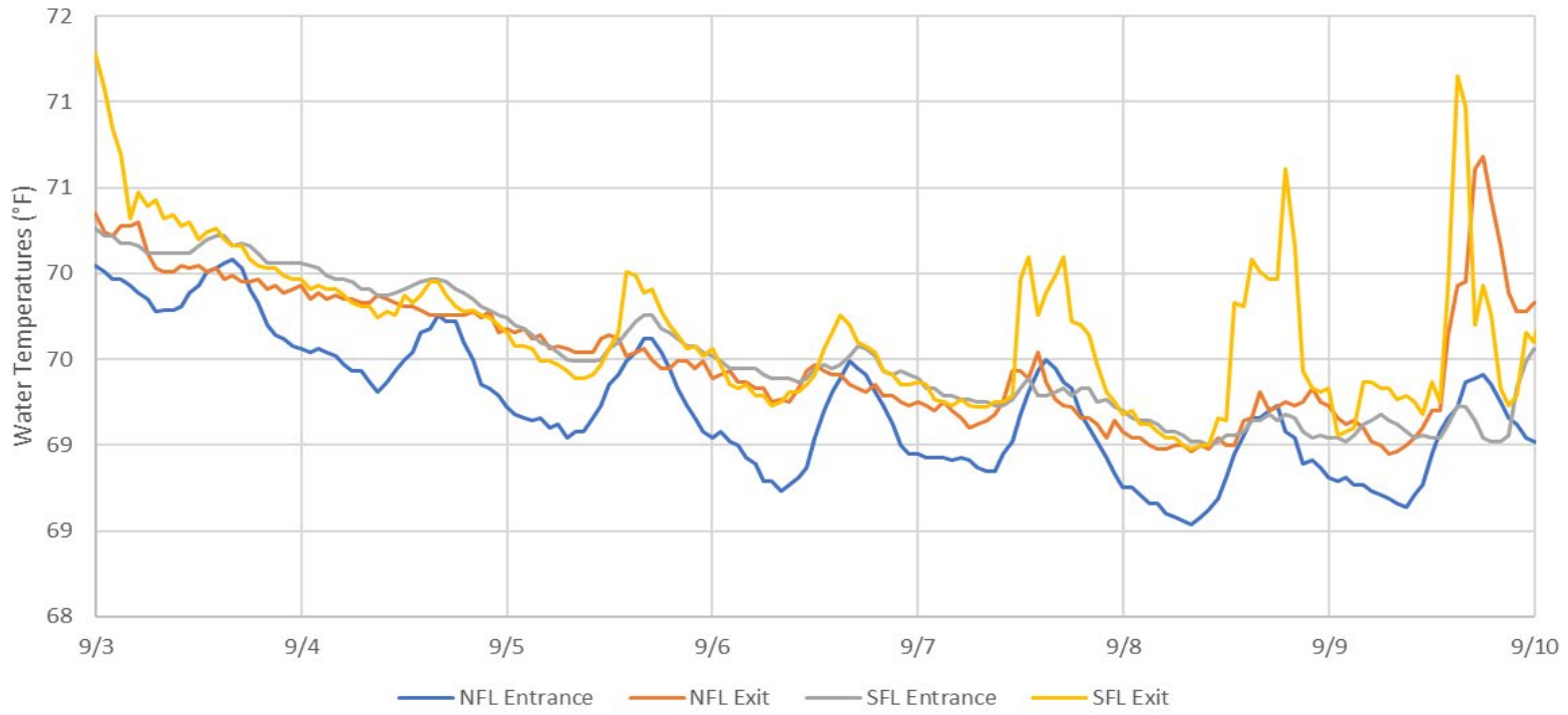
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation started on 6/12/23 and ended 09/06/23. 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)
9/4/2023	Unit 4	2.53	55,55,0	158.9
9/4/2023	Unit 12	2.49	55,55,0	158.9
9/6/2023	Unit 4	2.50	55,55,0	159.0
9/6/2023	Unit 12	2.49	55,55,0	159.0
9/9/2023	Unit 4	2.69	55,55,0	159.1
9/9/2023	Unit 12	2.58	55,55,0	159.1

Average Weekly Velocity (ft/sec)	2.55
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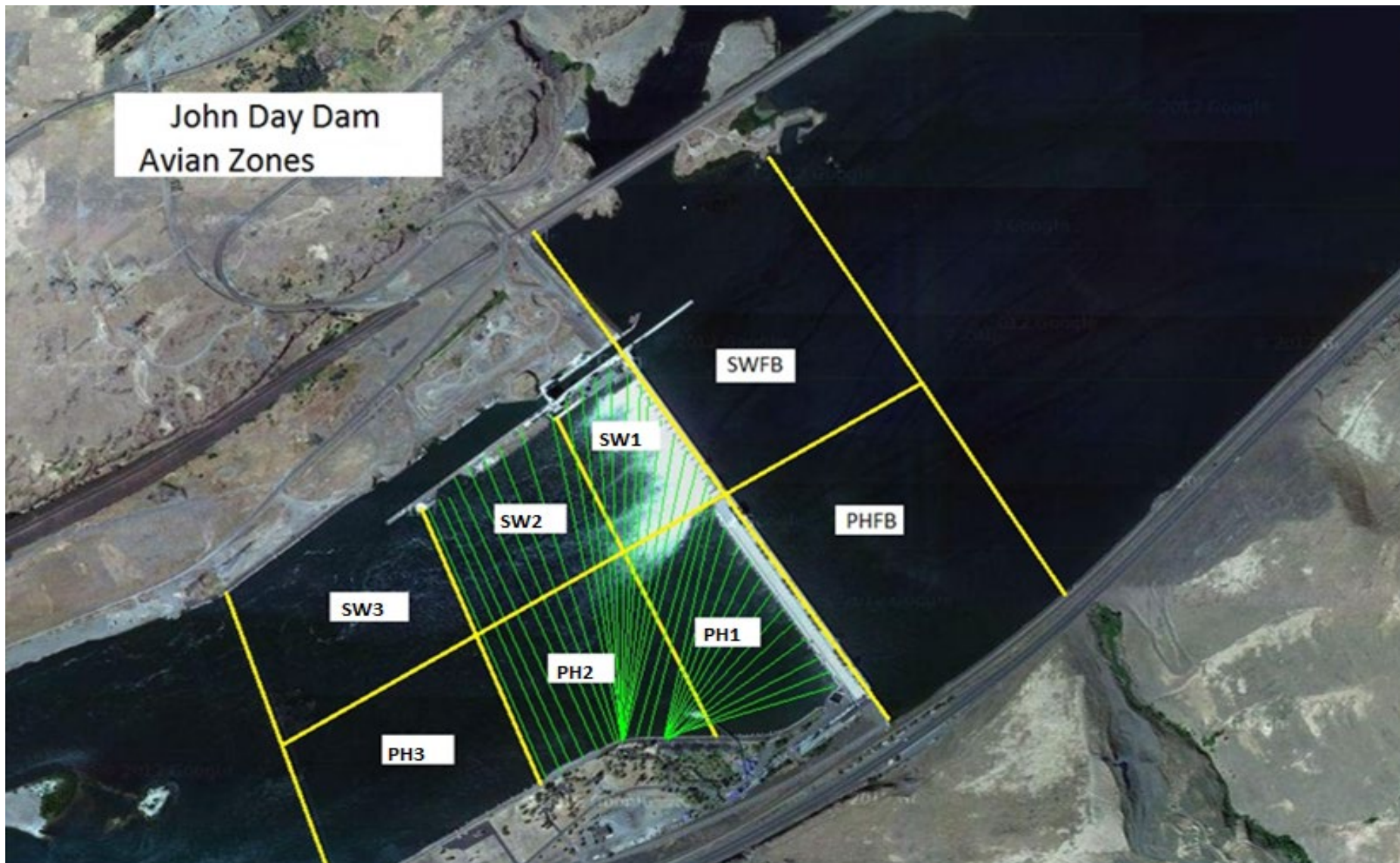
## JOHN DAY WEEKLY AVERAGES

	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>	8.4	1.1	9.4	9.4	1.8	1.5	4.6	1.6	1.8	1.0
<b>Sunday</b>	8.6	1.5	9.6	9.6	1.7	1.5	4.7	1.6	1.5	1.0
<b>Monday</b>	8.3	1.5	8.6	8.6	1.6	1.6	4.7	1.6	1.9	1.0
<b>Monday</b>	8.8	1.3	9.2	9.2	1.8	1.5	4.6	1.6	1.7	1.0
<b>Tuesday</b>	8.3	1.3	8.7	8.7	1.6	1.6	4.6	1.6	2.0	1.0
<b>Tuesday</b>	8.3	1.3	8.8	8.8	1.8	1.6	4.7	1.6	1.8	1.0
<b>Wednesday</b>	8.6	1.2	8.6	8.6	1.7	1.4	4.6	1.6	1.8	1.0
<b>Wednesday</b>	8.2	1.4	8.9	9.0	1.7	1.4	4.6	1.6	1.9	1.0
<b>Thursday</b>	8.0	1.6	8.0	8.1	1.9	1.7	4.5	1.6	2.4	1.0
<b>Thursday</b>	8.5	1.5	9.4	9.4	1.7	1.7	4.5	1.6	2.3	1.0
<b>Friday</b>	8.4	1.6	9.5	9.5	1.7	1.6	4.5	1.6	2.1	1.0
<b>Friday</b>	8.9	1.2	9.1	9.1	1.3	1.6	4.6	1.6	2.1	1.0
<b>Saturday</b>	8.3	1.5	8.7	8.7	1.8	1.6	4.5	1.6	2.2	1.0
<b>Saturday</b>	8.4	1.4	8.9	8.9	1.8	1.5	4.5	1.6	2.2	1.0
<b>AVG:</b>	<b>8.4</b>	<b>1.4</b>	<b>9.0</b>	<b>9.0</b>	<b>1.7</b>	<b>1.6</b>	<b>4.6</b>	<b>1.6</b>	<b>2.0</b>	<b>1.0</b>

	Temp (F)	Secchi (Ft)	Notes
<b>Sunday</b>	70.2	6.0	
<b>Monday</b>	69.9	6.0	
<b>Tuesday</b>	69.6	6.0	
<b>Wednesday</b>	69.3	6.0	
<b>Thursday</b>	69.2	6.0	
<b>Friday</b>	69.0	6.0	
<b>Saturday</b>	69.1	6.0	
<b>AVG</b>	<b>69.5</b>	<b>6.0</b>	



John Day Dam  
Avian Zones





**JDA Bird Counts: 9/3/23 to 9/9/23**

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)	
3-Sep	PHFB	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3-Sep	SWFB	0	0	20	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
3-Sep	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Sep	SW2	0	0	0	0	0	0	15	10	0	0	0	0	0	0	0	0	0	0	0	0	25
3-Sep	SW3	100	0	0	0	0	0	5	0	0	0	0	0	0	0	4	0	0	0	0	0	109
<b>Avg/Survey</b>		<b>50</b>		<b>85</b>		<b>0</b>		<b>17</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>154</b>
4-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep	SWFB	0	0	150	210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	360
4-Sep	PH1	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
4-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
4-Sep	PH3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4-Sep	SW2	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12
4-Sep	SW3	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
<b>Avg/Survey</b>		<b>5</b>		<b>180</b>		<b>1</b>		<b>9</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>197</b>
5-Sep	PHFB	0	0	0	0	0	0	20	0	0	0	0	0	0	0	45	0	0	0	0	0	65
5-Sep	SWFB	0	0	157	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	292
5-Sep	PH1	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
5-Sep	PH2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
5-Sep	PH3	85	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	86
5-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Sep	SW2	0	0	0	0	0	0	23	30	0	0	0	0	0	0	0	0	0	0	0	0	53
5-Sep	SW3	0	10	0	0	0	0	9	0	0	0	0	0	0	0	12	20	0	0	0	0	51
<b>Avg/Survey</b>		<b>58</b>		<b>146</b>		<b>0</b>		<b>41</b>		<b>0</b>		<b>0</b>		<b>1</b>		<b>39</b>		<b>0</b>		<b>0</b>		<b>285</b>
6-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
6-Sep	SWFB	0	0	200	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	464
6-Sep	PH1	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
6-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep	PH3	15	7	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	29
6-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep	SW2	0	0	0	0	0	0	16	26	0	0	0	0	0	0	0	0	0	0	0	0	42
6-Sep	SW3	0	0	0	0	0	0	10	0	0	0	0	0	0	0	5	10	0	0	0	0	25
<b>Avg/Survey</b>		<b>21</b>		<b>232</b>		<b>0</b>		<b>26</b>		<b>0</b>		<b>0</b>		<b>4</b>		<b>8</b>		<b>2</b>		<b>0</b>		<b>292</b>

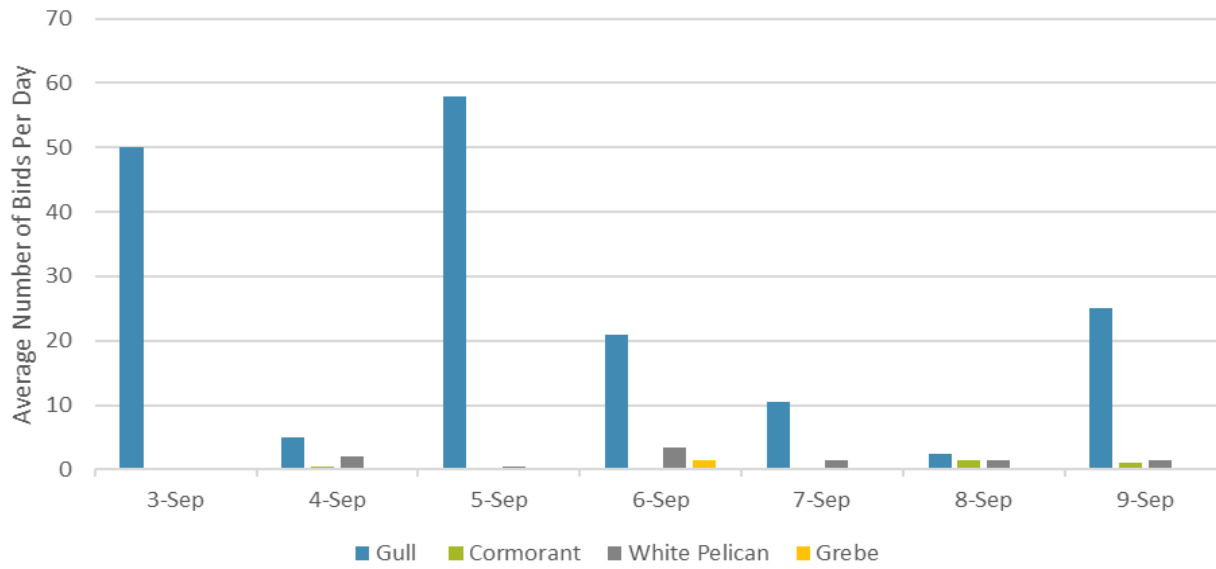
**JDA Bird Counts: 9/3/23 to 9/9/23**

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)	
7-Sep	PHFB	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13
7-Sep	SWFB	0	0	263	360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	623
7-Sep	PH1	16	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	17
7-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Sep	PH3	5	0	0	20	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	27
7-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Sep	SW2	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	21
7-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	20	0	0	0	0	38
<b>Avg/Survey</b>		<b>11</b>		<b>322</b>		<b>0</b>		<b>17</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>19</b>		<b>0</b>		<b>0</b>		<b>370</b>
8-Sep	PHFB	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	11
8-Sep	SWFB	0	0	217	273	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	490
8-Sep	PH1	0	0	0	3	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7
8-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	20	1	0	0	0	0	24
8-Sep	PH3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Sep	SW2	0	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	39
8-Sep	SW3	0	5	0	20	0	0	0	0	0	0	0	0	0	0	9	35	0	0	0	0	69
<b>Avg/Survey</b>		<b>3</b>		<b>258</b>		<b>2</b>		<b>25</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>33</b>		<b>0</b>		<b>0</b>		<b>322</b>
9-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep	SWFB	0	0	200	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	450
9-Sep	PH1	15	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	18
9-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
9-Sep	PH3	35	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	37
9-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep	SW2	0	0	1	0	0	0	23	30	0	0	0	0	0	0	0	0	0	0	0	0	54
9-Sep	SW3	0	0	0	5	0	0	3	2	0	0	0	0	0	0	23	30	0	0	0	0	63
<b>Avg/Survey</b>		<b>25</b>		<b>228</b>		<b>1</b>		<b>29</b>		<b>0</b>		<b>0</b>		<b>2</b>		<b>27</b>		<b>0</b>		<b>0</b>		<b>312</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>344</b>	<b>2901</b>	<b>6</b>	<b>328</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>255</b>	<b>3</b>	<b>0</b>	<b>3858</b>								
<b>Avg/Survey</b>	<b>25</b>	<b>207</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>276</b>										

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds

