

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/19/2023

Inspection Period: 8/13/2023 thru 8/19/2023



**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:	72.4 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.)	1.5			
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.)	1.3			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.4			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.63			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.7			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.8			
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)	27.6	Avg (%)	20.9	
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. 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

ROV Inspections performed on 8/8/23 - nothing unusual to report

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)

Currently in "Late Summer Spill" [August 15th - August 31st (20 KCFS @ 24-hours/day)]

Weekly Average Tailwater TDG: 114.24

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 ~32/inspection), foraging gull numbers have decreased slightly this week (~9/inspection), no foraging grebes, and foraging cormorants (~1/inspection) observed this week.

There are ~100 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)

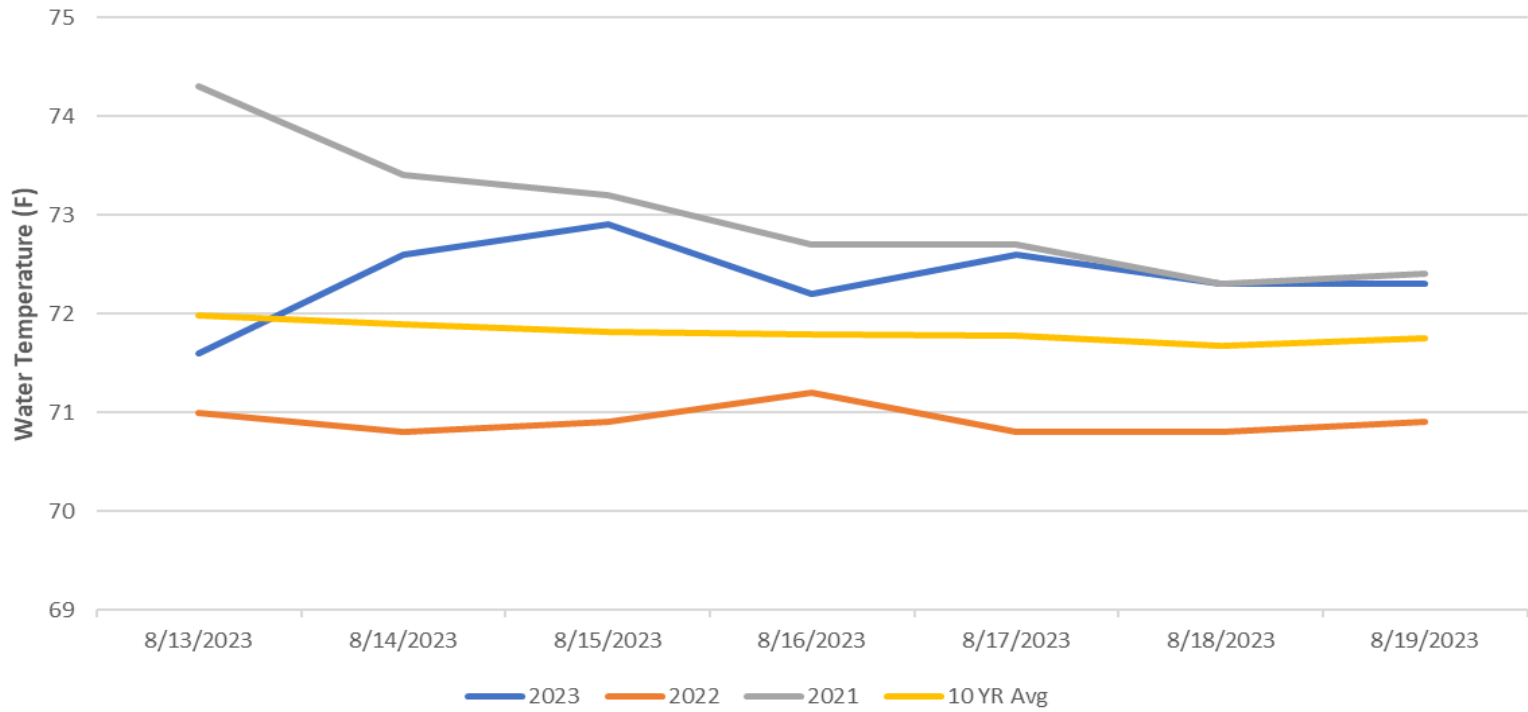
PSMFC smolt condition monitoring began 4/3/23 (currently 2-days/week)

USDA hazing ended 07/31/23

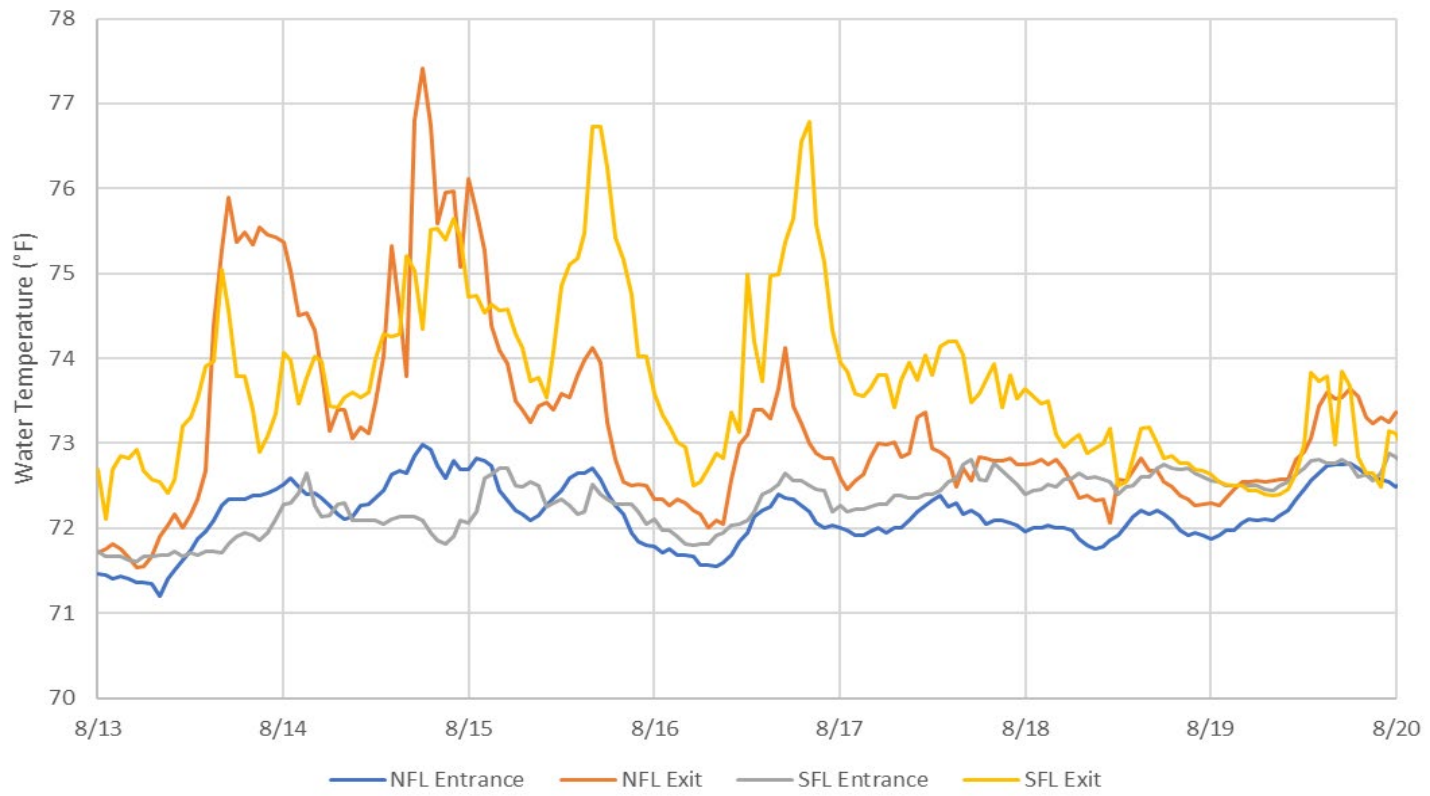
WDFW currently performing NPMP dam angling (started 5/8/23)

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 Temperature



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)
8/14/2023	Unit 4	2.57	55,55,0	159.4
8/14/2023	Unit 12	2.57	55,55,0	159.4
8/17/2023	Unit 4	2.67	55,55,0	160.1
8/17/2023	Unit 12	2.64	55,55,0	160.1
8/19/2023	Unit 4	2.68	55,55,0	159.9
8/19/2023	Unit 12	2.65	55,55,0	159.9

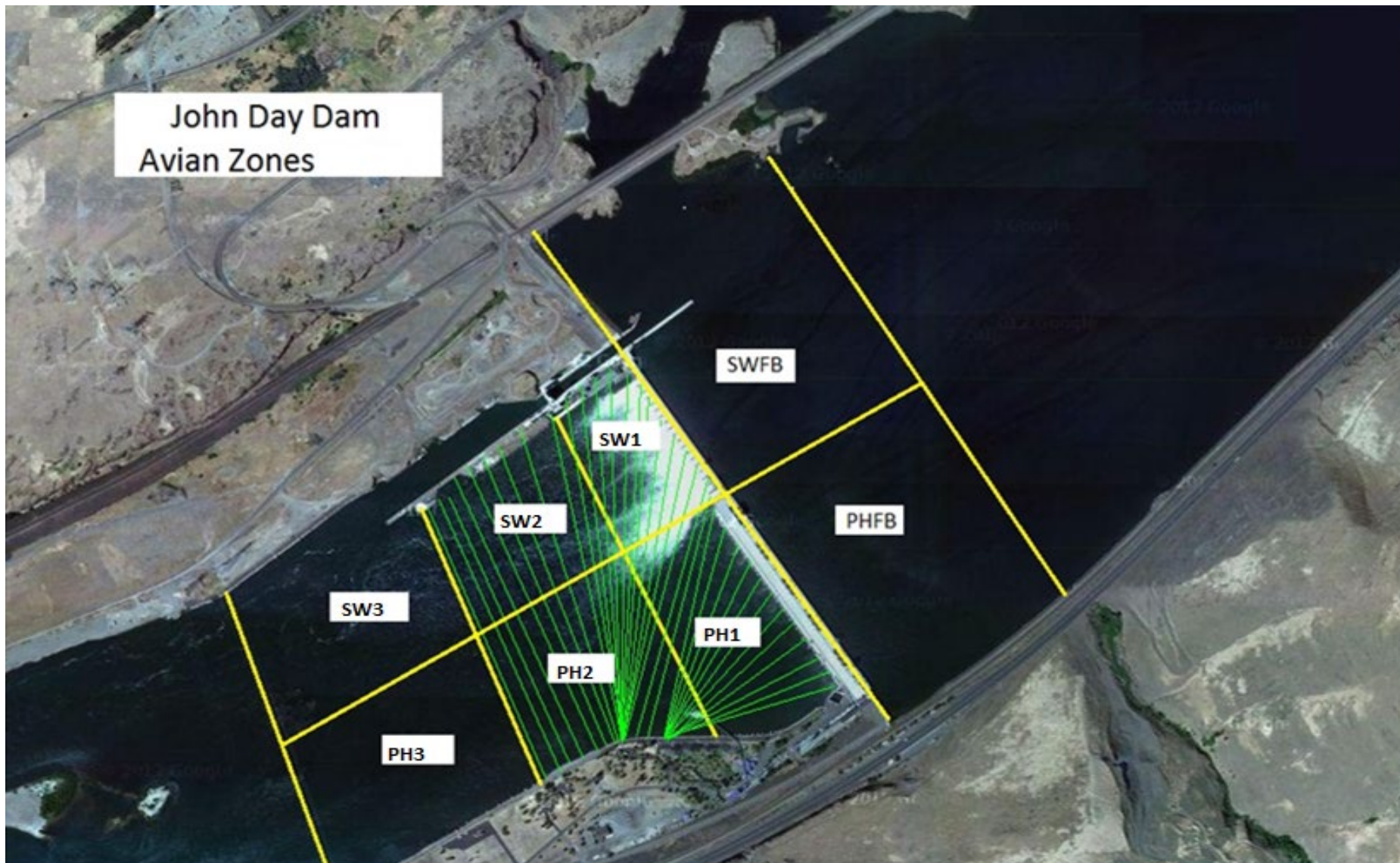
Average Weekly Velocity (ft/sec)	2.63
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JOHN DAY WEEKLY AVERAGES

	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
Sunday	8.2	1.4	9.1	9.1	1.9	1.6	4.5	40.0	35.4	14.0
Sunday	8.2	1.4	9.1	9.1	1.8	1.7	4.5	40.1	35.1	14.0
Monday	8.4	1.3	8.9	9.0	1.7	1.5	4.5	42.0	35.0	14.0
Monday	8.7	1.5	9.1	9.2	1.8	1.5	4.6	52.6	34.2	19.0
Tuesday	9.7	1.0	10.1	10.2	1.5	1.5	4.5	21.0	15.8	3.0
Tuesday	8.1	1.5	10.0	10.1	1.9	1.7	4.6	21.0	15.7	3.0
Wednesday	8.0	1.5	9.3	9.4	1.8	1.5	4.7	21.2	18.2	3.0
Wednesday	8.3	1.3	10.8	10.9	1.8	1.5	4.6	21.2	11.4	3.0
Thursday	8.1	1.4	9.7	9.8	1.7	1.5	4.5	21.2	17.0	3.0
Thursday	8.6	1.3	10.8	10.9	1.8	1.4	4.7	21.2	10.8	3.0
Friday	8.2	1.3	9.6	9.5	1.8	1.5	4.6	21.2	16.8	3.0
Friday	8.7	1.2	10.7	10.7	1.4	1.4	4.7	21.2	14.6	3.0
Saturday	8.1	1.4	9.5	9.5	1.9	1.6	4.5	21.2	16.5	3.0
Saturday	8.2	1.2	9.5	9.5	1.8	1.6	4.5	21.2	16.1	3.0
AVG:	8.4	1.3	9.7	9.8	1.8	1.5	4.6	27.6	20.9	6.5

	Temp (F)	Secchi (Ft)	Notes
Sunday	71.6	6.0	
Monday	72.6	6.0	
Tuesday	72.9	6.0	
Wednesday	72.2	6.0	
Thursday	72.6	6.0	
Friday	72.3	6.0	
Saturday	72.3	6.0	
AVG	72.4	6.0	

John Day Dam
Avian Zones



JDA Bird Counts: 8/13/23 to 8/19/23

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)	
13-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug	SWFB	0	0	22	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
13-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
13-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
13-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
13-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	30	5	15	0	0	0	0	0	0
13-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	30	5	30	25	0	0	0	0	0
Avg/Survey		0		113		0		0		0		0		37		35		0		0		185
14-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	SWFB	0	0	53	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
14-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	14	30	19	0	0	0	0	0	0
14-Aug	SW3	0	0	90	0	0	0	0	0	0	0	0	0	115	10	53	10	0	0	0	0	0
Avg/Survey		0		97		0		0		0		0		92		41		0		0		229
15-Aug	PHFB	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	SWFB	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
15-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
15-Aug	PH3	4	0	10	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
15-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
15-Aug	SW2	0	0	12	0	0	0	0	0	0	0	0	0	9	21	5	0	0	0	0	0	0
15-Aug	SW3	18	0	85	0	0	0	0	0	0	0	0	0	22	8	0	0	0	0	0	0	0
Avg/Survey		11		91		0		5		0		0		44		3		0		0		154
16-Aug	PHFB	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	SWFB	0	0	16	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	5	4	0	0	0	0	0	0	0
16-Aug	PH3	3	0	5	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	0	0	0
16-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Aug	SW2	3	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0
16-Aug	SW3	4	7	21	0	0	0	0	0	0	1	0	0	20	12	30	0	0	0	0	0	0
Avg/Survey		9		44		0		0		1		0		27		15		0		0		95

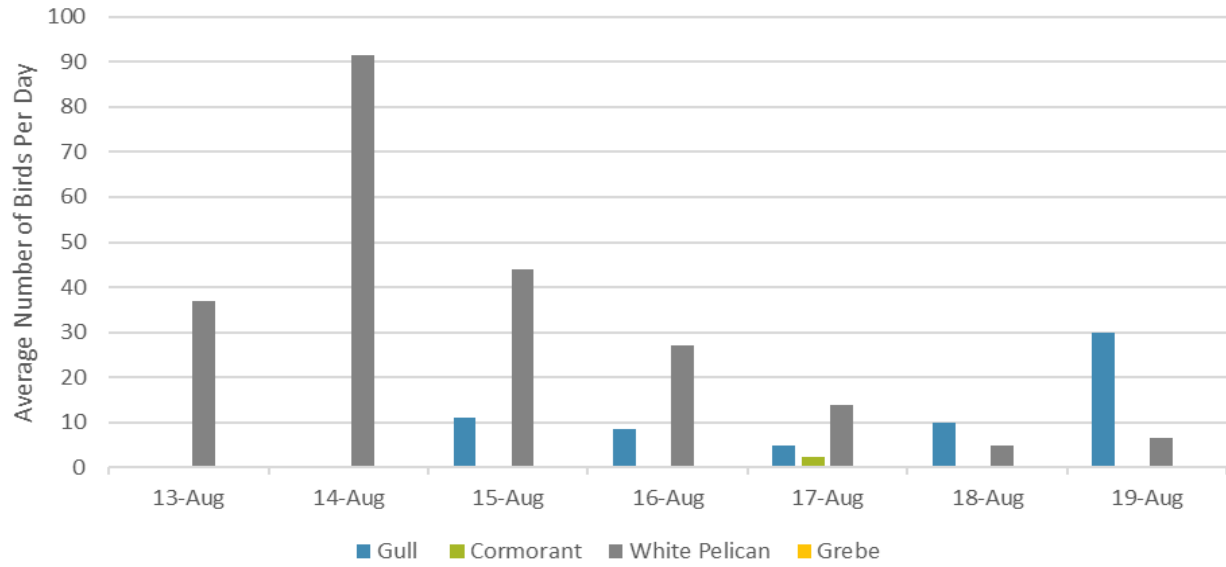
JDA Bird Counts: 8/13/23 to 8/19/23

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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-Aug	PHFB	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10
17-Aug	SWFB	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
17-Aug	PH1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
17-Aug	PH3	0	2	0	0	0	0	0	0	0	0	0	0	5	4	0	0	0	0	0	0	11
17-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Aug	SW2	0	4	0	0	4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	10
17-Aug	SW3	2	2	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	0	20
Avg/Survey		5		11		3		6		0		0		14		0		0		0		38
18-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	SWFB	0	0	30	0	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0	52
18-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	PH3	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	5
18-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	SW3	9	8	25	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	50
Avg/Survey		10		28		0		11		0		0		5		0		0		0		54
19-Aug	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Aug	SWFB	0	0	30	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137
19-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
19-Aug	SW3	30	30	0	0	0	0	2	0	0	0	0	0	10	0	0	0	0	0	0	0	72
Avg/Survey		30		69		0		1		0		0		7		0		0		0		106

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					
Weekly Total	129	901	5	45	1	0	450	187	0	0	1718										
Avg/Survey	9	64	0	3	0	0	32	13	0	0	123										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

