

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 7/29/2023

Inspection Period: 7/23/2023 thru 7/29/2023



**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.

John Day Dam	Inspection OOC	Criteria Limit	Total Number of Inspections: 13				Temperature:	72.0 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.)	8.2					
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.62					
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7					
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.8					
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.6					

JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6					
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)	48.6	Avg (%)	35.1			
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: 114.67

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:

Slight increase in pelican foraging within the tailrace this week (average ~181/inspection), Grebe numbers are decreasing (~0/inspection), Gull numbers have slightly increased this week (~5/inspection).

There are ~800 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)

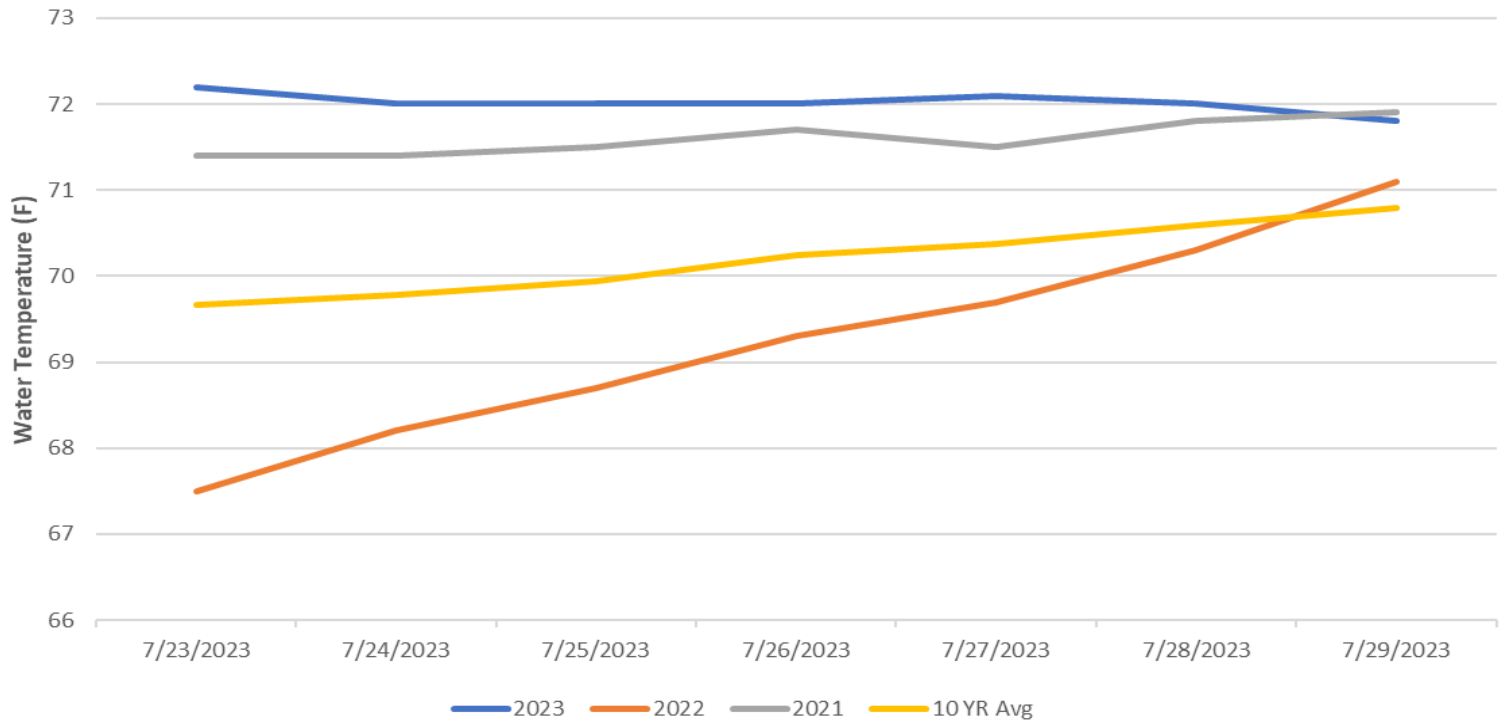
PSMFC smolt condition monitoring began 4/3/23 (currently 2-days/week)

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

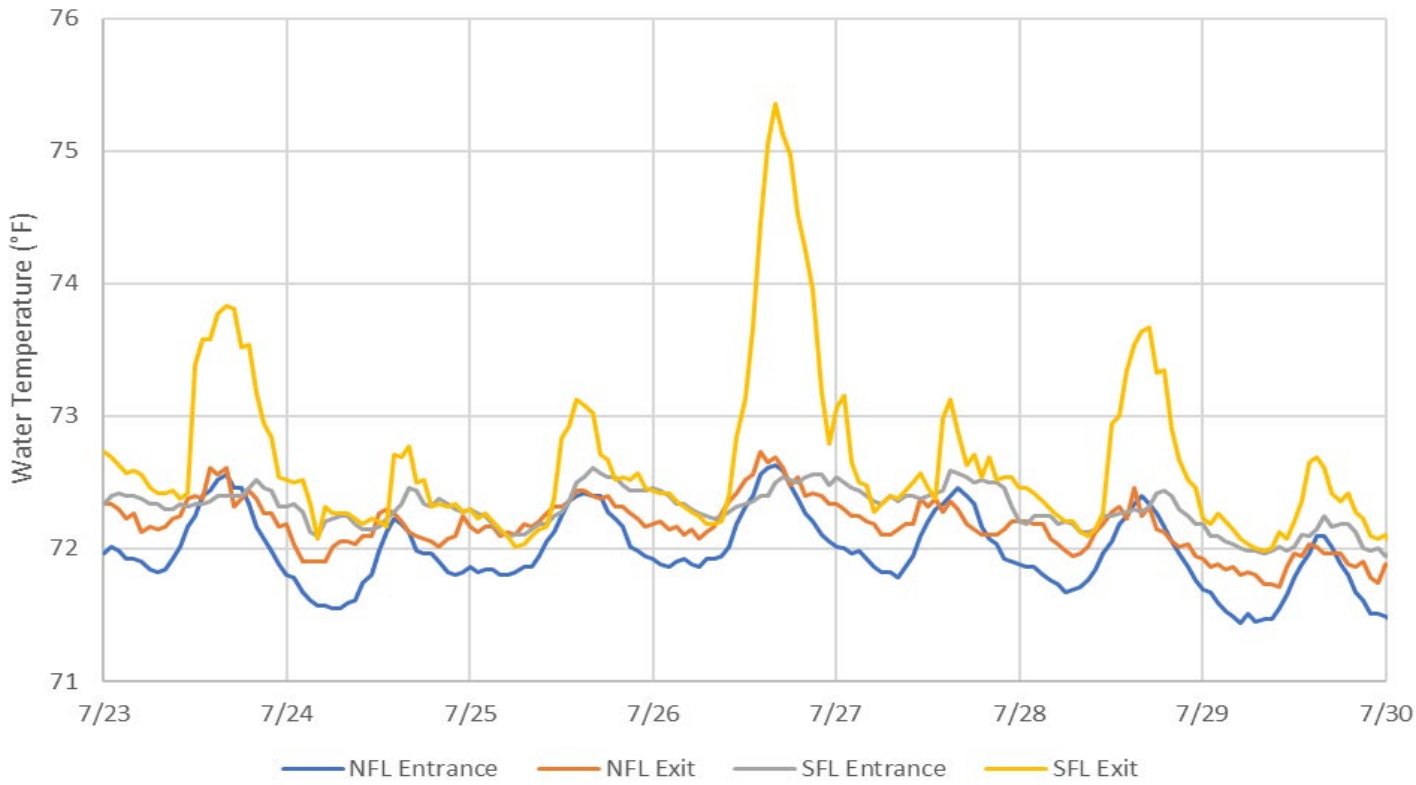
WDFW currently performing NPMP dam angling (started 5/8/23)

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)
7/24/2023	Unit 4	2.63	55,55,0	159.3
7/24/2023	Unit 12	2.50	55,55,0	159.3
7/26/2023	Unit 4	2.68	55,55,0	159.8
7/26/2023	Unit 12	2.63	55,55,0	159.8
7/29/2023	Unit 4	2.67	55,55,0	159.2
7/29/2023	Unit 12	2.62	55,55,0	159.2

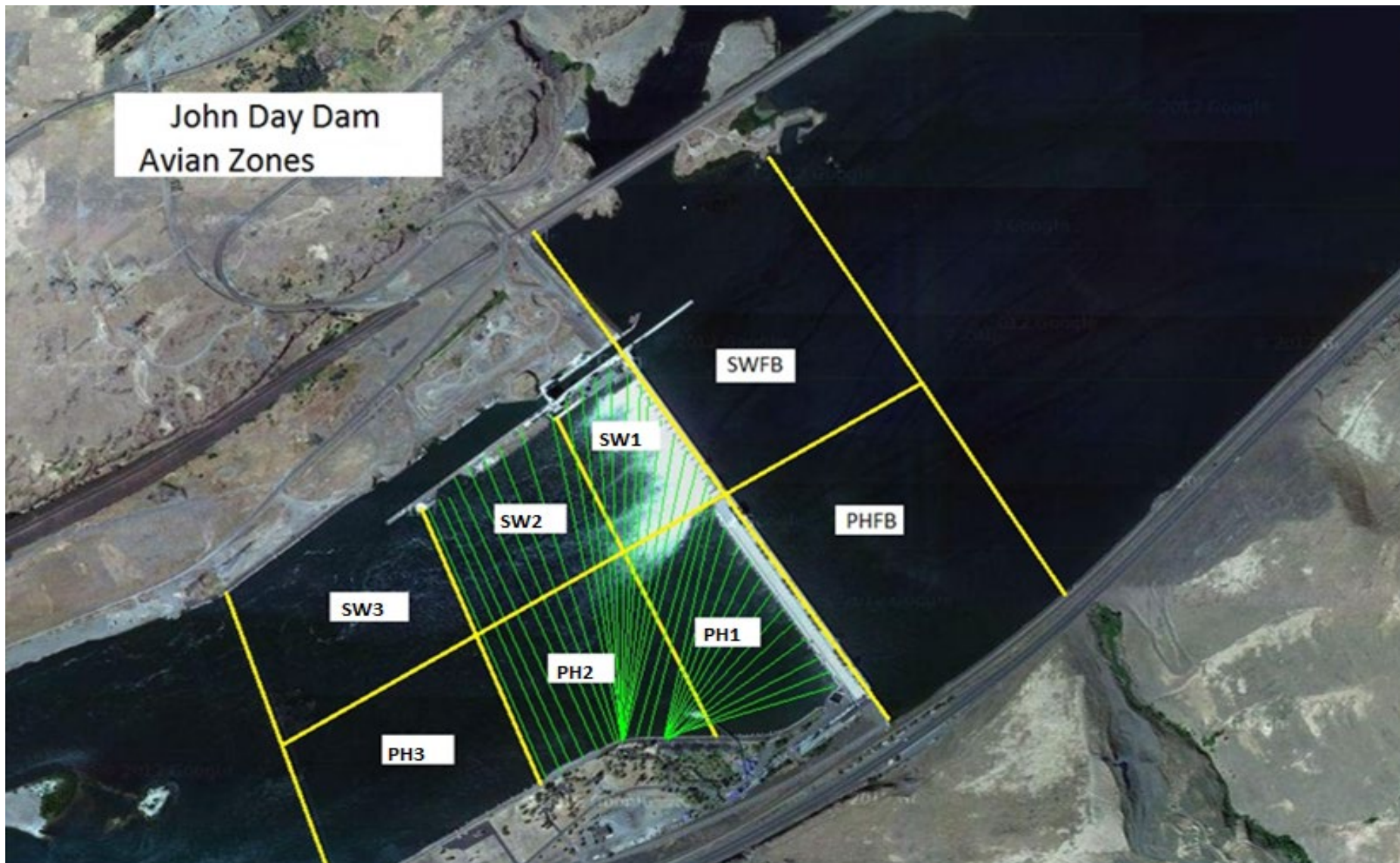
Average Weekly Velocity (ft/sec)	2.62
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JOHN DAY WEEKLY AVERAGES

	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	8.3	1.1	9.3	9.1	1.8	1.6	4.6	41.1	34.7	14.0
Sunday	8.2	1.5	9.4	9.2	1.8	1.6	4.5	40.3	35.0	14.0
Monday	8.3	1.2	9.2	9.0	1.8	1.5	4.6	44.9	35.6	17.0
Monday	8.3	1.3	9.7	9.5	1.9	1.4	4.6	45.2	34.4	17.0
Tuesday	8.2	1.5	10.5	10.3	1.9	1.4	4.7	49.0	35.0	18.0
Tuesday	8.0	1.2	10.4	10.2	1.8	1.5	4.5	54.1	35.5	19.0
Wednesday	8.2	1.3	9.2	9.0	1.5	1.6	4.6	44.2	35.6	16.0
Wednesday	8.4	1.3	10.2	10.0	1.7	1.4	4.6	65.1	35.0	19.0
Thursday	8.1	1.3	10.0	9.8	1.7	1.5	4.6	53.1	35.0	19.0
Thursday										
Friday	8.1	1.3	10.0	9.8	1.4	1.6	4.5	47.5	35.7	17.0
Friday	8.2	1.2	9.9	9.8	1.5	1.5	4.6	47.5	35.1	17.0
Saturday	8.2	1.2	9.1	8.9	1.8	1.6	4.6	46.6	35.2	17.0
Saturday	8.4	1.3	10.0	9.8	1.9	1.3	4.6	53.6	34.6	19.0
AVG:	8.2	1.3	9.8	9.6	1.7	1.5	4.6	48.6	35.1	17.2

	Temp (F)	Secchi (Ft)	Notes
Sunday	72.2	6.0	
Monday	72.0	6.0	
Tuesday	72.0	6.0	
Wednesday	72.0	6.0	
Thursday	72.1	6.0	
Friday	72.0	6.0	
Saturday	71.8	6.0	
AVG	72.0	6.0	

John Day Dam
Avian Zones



JDA Bird Counts: 7/23/23 to 7/29/23

F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

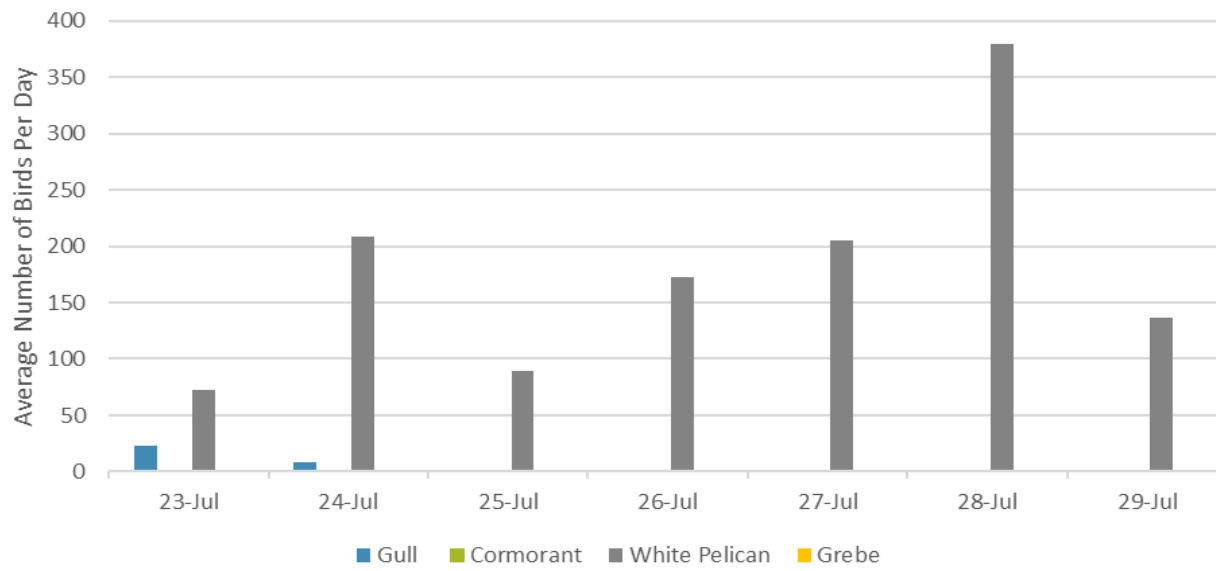
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
23-Jul	PHFB	30	15	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	0	0	54
23-Jul	SWFB	0	0	3	40	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	0	58
23-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
23-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
23-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	20	6	0	0	0	0	0	0	26
23-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	30	10	0	0	0	0	0	0	40
23-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	50	14	20	0	0	0	0	0	84
Avg/Survey		23		22		0		0		0		0		73		18		0		0		135
24-Jul	PHFB	2	15	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	22
24-Jul	SWFB	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	43
24-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
24-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	50	6	0	0	0	0	0	0	56
24-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	132	10	0	0	0	0	0	0	142
24-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	150	14	0	30	0	0	0	0	194
Avg/Survey		9		20		0		0		0		0		209		17		0		0		254
25-Jul	PHFB	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2
25-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
25-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
25-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	20
25-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	40	20	0	0	0	0	0	0	60
25-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	50	30	0	0	0	0	0	0	80
Avg/Survey		1		0		0		0		0		0		89		0		0		0		90
26-Jul	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
26-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
26-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
26-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100
26-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	16
26-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	100	0	41	0	0	0	0	0	141
26-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	60	0	80	0	0	0	0	0	140
Avg/Survey		0		0		0		0		0		0		172		61		0		0		233

JDA Bird Counts: 7/23/23 to 7/29/23

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)	
27-Jul	PHFB	0	0	94	6	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	104
27-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jul	PH1	2	0	0	0	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	31
27-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	70
27-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	112	0	0	0	0	0	0	0	112
27-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
27-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	45	0	43	0	0	0	0	0	88
27-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0	100
Avg/Survey		1		50		0		0		0		0		205		22		0		0		278
28-Jul	PHFB	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
28-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
28-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
28-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	27	28	0	0	0	0	0	0	55
28-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	200	115	73	50	0	0	0	0	438
28-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	250	130	84	14	0	0	0	0	478
Avg/Survey		0		3		0		0		0		0		380		111		0		0		493
29-Jul	PHFB	0	0	0	160	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	163
29-Jul	SWFB	0	0	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
29-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	30	30	0	0	0	0	0	0	60
29-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	60	25	50	10	0	0	0	0	145
29-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	100	25	50	0	0	0	0	0	175
Avg/Survey		0		133		0		0		0		0		137		55		0		0		324
Totals	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total	
	F		NF		F		NF		F		NF		F		NF		F		NF			
	65	454	0	0	0	0	0	0	2527	563	0	0	0	0								
Avg/Survey	5	32	0	0	0	0	0	181	40	0	0	258										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

