

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/20/2023

Inspection Period: 5/14/2023 thru 5/20/2023



**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: 14				Temperature:	55.9 F
						Secchi:	3.3 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.)	1.4				

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	1	1.0' - 2.0'	AVG (Ft.)	1.3				
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.7				
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.99				
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.6				
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	11.9				
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	11.9				

JUVENILE PASSAGE

Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.5				
Submersible traveling screens	0	visual inspect	next inspection 5/22-5/25					
Turbine trashrack drawdown	0	<1.5', wkly						
Vert barrier screen drawdown	0	<1.2', wkly						
Spill volume	0	per FPP	AVG (kcfs)	211.1	Avg (%)	54.0		
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. From April 3 - June 15 condition sampling will occur 5 days a week (Monday-Friday) from approximately 0700-1300 or until the target of 100 fish of the predominant species has been reached. From June 16 - September 15 condition sampling will occur 3 days a week (Monday, Wednesday, Friday) from approximately 0700-1300 or until the target of 100 fish of the predominant species has been reached. High water temperature protocol goes into effect when water temperatures exceed 70F.

Adult Ladder Operations:

NFL in criteria

SFL turbine 2 RTS 3/20 @ reduced RPMs (55 RPMs) to prolong the repairs

SFL turbine 3 still OOS (Philadelphia gear inspected on 2/22 and recommended FOOS - See 23JDA03) - Awaiting Funding

FOG's removed

Project Operations:

Current outages: MU4 (ETR: 11/2/23), MU7 (ETR: 7/31/28), MU8 (ETR: 1/10/24), MU10 (ETR: 11/15/23), MU13 (ETR: 6/14/23)

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

Weekly Average Tailwater TDG: 124.1

Maintenance:

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

Grebe numbers are holding steady in the forebay (~10), gull numbers are increasing with most foraging activity located in PH3 and SW3 zones (~70/inspection), and no cormorant sightings this week.

There are approximately 40-50 pelicans hanging around Preacher's Island with a few foraging observations in JDA bird counting zones.

11 of 125 avian lines down, in contracting phase for replacement of 9 lines from powerhouse roof.

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)

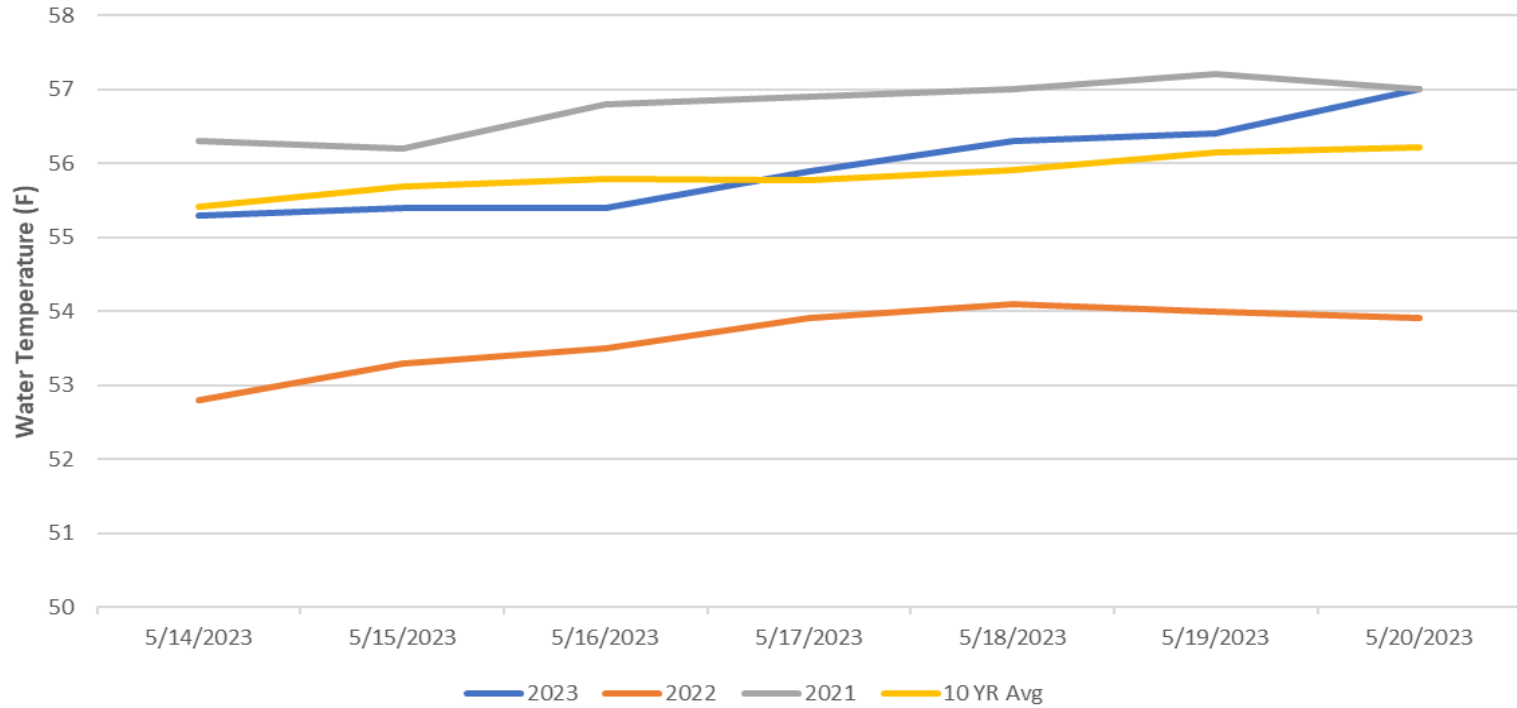
PSMFC smolt condition monitoring began 4/3/23 (currently 5-days/week)

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

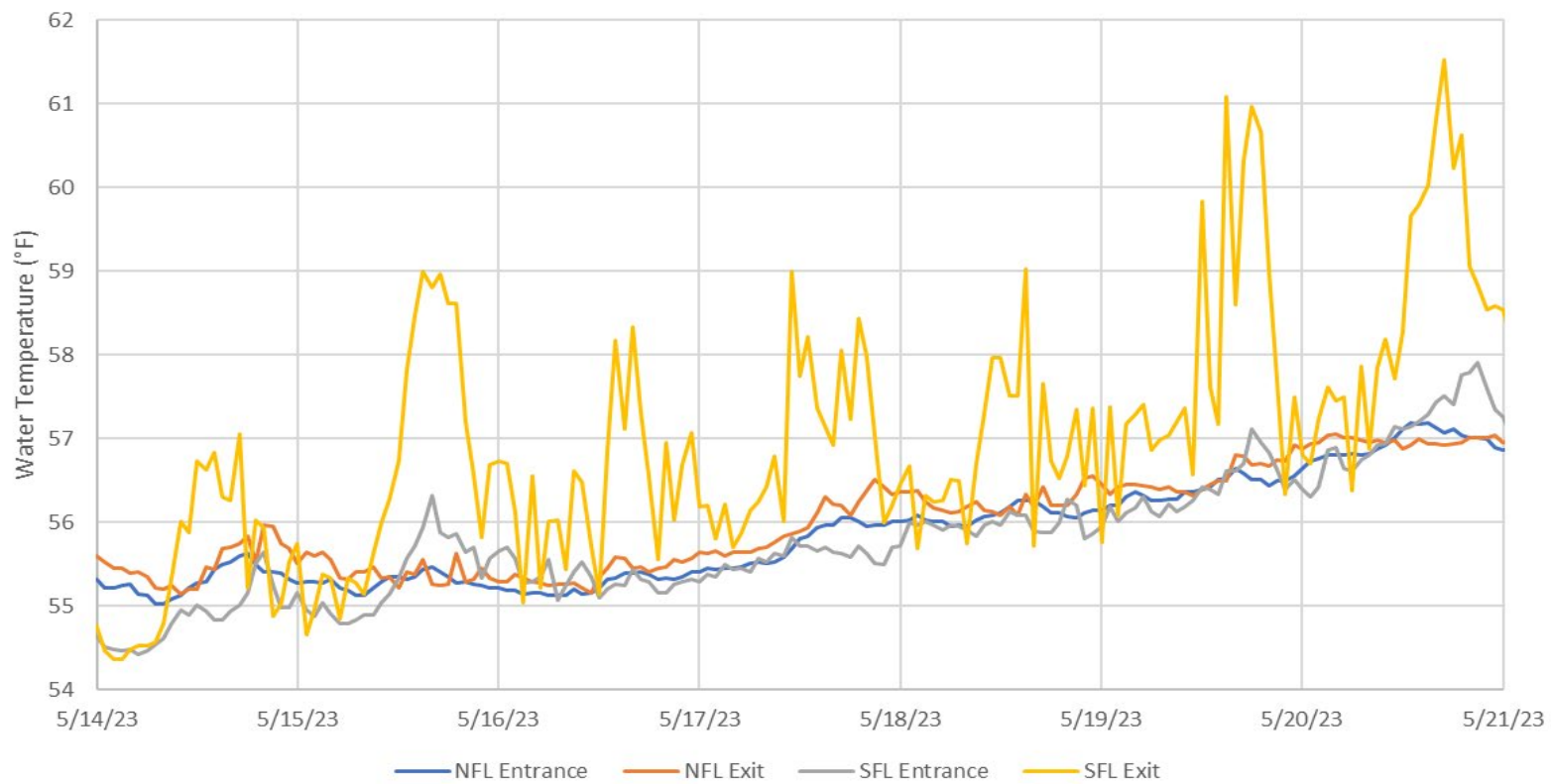
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation is upcoming and TBD

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)
5/15/2023	Unit 4	3.03	55,55,0	163.2
5/15/2023	Unit 12	2.96	55,55,0	163.2
5/17/2023	Unit 4	3.12	55,55,0	164.6
5/17/2023	Unit 12	3.25	55,55,0	164.6
5/20/2023	Unit 4	2.82	55,55,0	165.9
5/20/2023	Unit 12	2.78	55,55,0	165.9

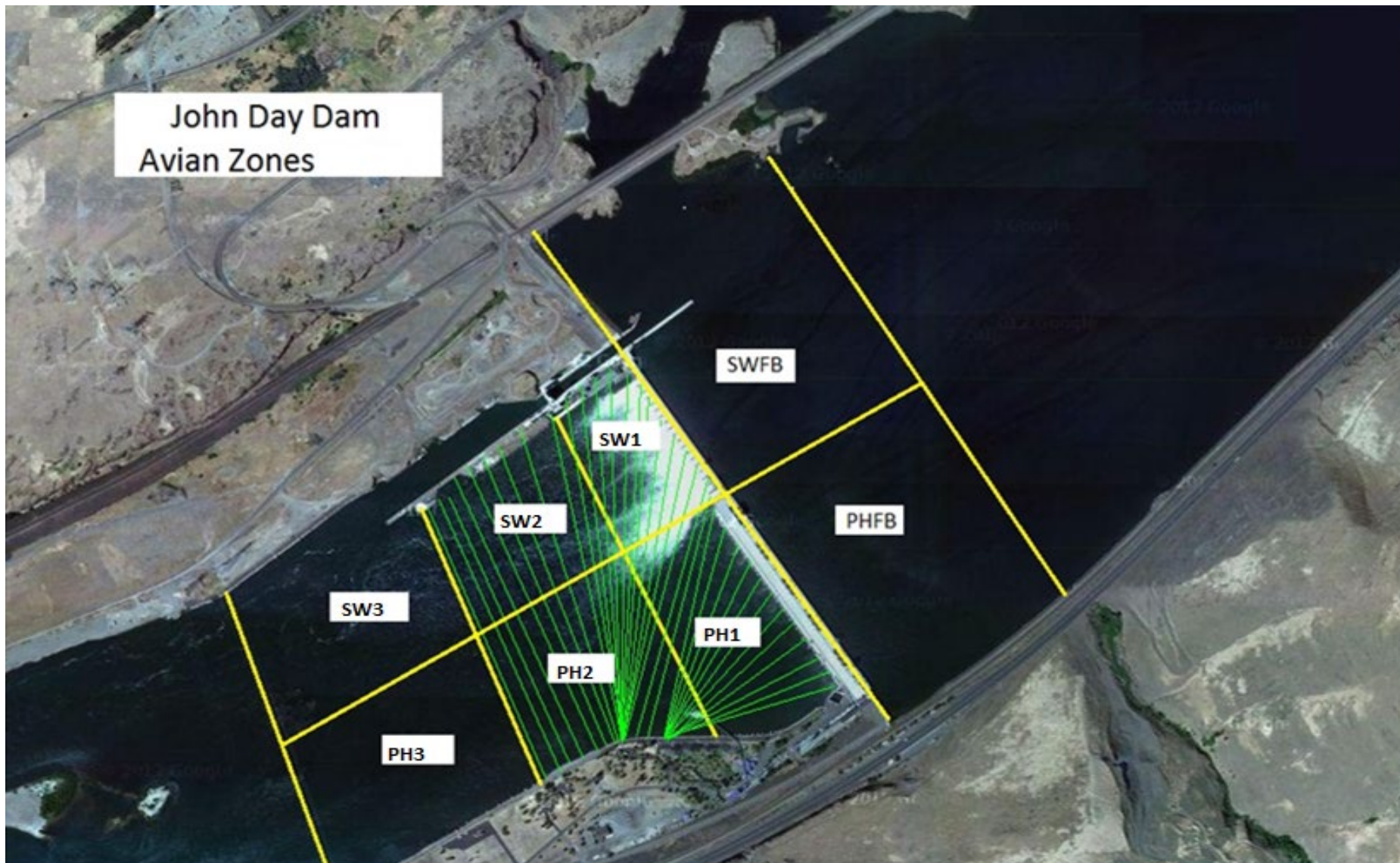
Average Weekly Velocity (ft/sec)	2.99
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JOHN DAY WEEKLY AVERAGES

	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	1.4	9.7	9.8	1.8	1.5	4.6	230.6	72.2	18.0
Sunday	8.8	1.5	11.5	11.7	1.4	1.5	4.6	230.4	65.6	18.0
Monday	8.6	1.2	10.9	11.1	1.7	1.3	4.6	219.7	64.0	18.0
Monday	9.5	1.9	12.1	12.3	1.9	1.4	4.7	174.4	45.1	19.0
Tuesday	9.2	1.2	12.5	12.7	1.8	1.5	4.6	209.9	51.9	19.0
Tuesday	8.9	1.0	13.4	13.6	1.1	1.4	4.6	209.9	52.0	19.0
Wednesday	8.6	1.1	12.5	12.7	1.7	1.6	4.4	223.6	54.0	19.0
Wednesday	9.1	1.2	12.5	12.7	2.0	1.5	4.1	223.6	54.0	19.0
Thursday	8.9	1.0	12.9	13.0	1.6	1.5	4.5	204.8	49.4	19.0
Thursday	9.3	0.8	13.4	13.5	1.4	1.3	4.7	204.6	49.0	19.0
Friday	8.1	1.1	11.2	10.7	1.1	1.5	4.6	205.0	49.8	19.0
Friday	8.0	1.4	11.4	10.9	1.6	1.4	4.5	205.0	49.4	19.0
Saturday	8.0	1.7	11.3	10.8	1.8	1.4	4.5	205.0	49.2	19.0
Saturday	8.0	1.3	11.3	10.8	1.2	1.1	4.5	209.0	49.8	19.0
AVG:	8.7	1.3	11.9	11.9	1.6	1.4	4.5	211.1	54.0	18.8

	Temp (F)	Secchi (Ft)	Notes
Sunday	55.3	3.5	SE-1 was raised on the Thursday OOC to bring the differential back in to criteria.
Monday	55.4	3.5	
Tuesday	55.3	3.0	
Wednesday	55.6	3.0	
Thursday	56.2	3.0	
Friday	56.4	3.5	
Saturday	57.0	3.5	
AVG	55.9	3.3	

John Day Dam
Avian Zones



JDA Bird Counts: 5/14/23 to 5/20/23

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)	
14-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	14
14-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12
14-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-May	SW3	89	75	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	170
Avg/Survey		82		0		0		0		0		0		3		0		13		0		98
15-May	PHFB	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	12	0	0	31
15-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	PH3	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
15-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-May	SW2	0	52	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	53
15-May	SW3	15	53	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	72
Avg/Survey		76		0		0		0		0		0		3		0		10		0		88
16-May	PHFB	4	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	9	0	0	44
16-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	PH1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
16-May	PH2	6	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	8
16-May	PH3	30	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105
16-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-May	SW3	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Avg/Survey		73		0		0		0		0		0		1		0		10		0		84
17-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	4	0	0	15
17-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
17-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
17-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	PH3	0	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
17-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-May	SW3	5	22	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	28
Avg/Survey		51		0		0		0		0		0		1		0		9		0		61

JDA Bird Counts: 5/14/23 to 5/20/23

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)	
18-May	PHFB	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	51	
18-May	SWFB	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
18-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	PH3	8	52	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	61	
18-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18-May	SW3	7	33	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	43	
Avg/Survey		54		16		0		0		0		0		2		0		10		0	81	
19-May	PHFB	35	0	0	102	0	0	0	0	0	0	0	0	0	0	0	8	8	0	0	153	
19-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19-May	SW2	3	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
19-May	SW3	50	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	
Avg/Survey		52		54		0		0		0		0		0		0		8		0	114	
20-May	PHFB	0	0	0	130	0	0	0	0	0	0	0	0	0	0	0	17	8	0	0	155	
20-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20-May	SW2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
20-May	SW3	106	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	
Avg/Survey		83		65		0		0		0		0		0		0		13		0	161	

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	939	269	0	0	0	0	1	18	0	143	0	1370									
Avg/Survey	67	19	0	0	0	0	1	10	0	98											

