

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 6/4/2022

Inspection Period: 5/29/2022 thru 6/4/2022



**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: 55.5 F	Secchi: 4.0 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.)	9.9			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	3.04			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.4			
Entrance weir NE1	1	depth (≥ 8')	AVG (Ft.)	11.4			
Entrance weir NE2	1	depth (≥ 8')	AVG (Ft.)	11.3			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	next visual inspection 5/23 - 5/26				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.5', wkly					
Spill volume	0	per FPP	Avg (kcfs)	189.8	Avg %	56.8	
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 2022 sampling season on April 1 for condition monitoring only. From April 1 - 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:

Both ladders are operating within criteria. Ladders switched to shad mode on 5/31.

Project Operations:

Current outages: MU3, MU4, MU7, MU15.

Spring spill started April 10. Caspian tern forebaby operation for the Blalock islands ended 6/1.

USDA avian hazing started 16 April.

Tailwater average weekly TDG: 125.1

Maintenance:

South fish turbine #2 was forced out of service on 30 March with an excessive vibration issue. South fish turbine #1 tripped out on 6/1 at 1928 and operations adjusted the South Fish Ladder for 1 turbine operation according to FPP. Turbine #1 was restarted on 6/2 at 0915 and the RPMs on #1 and #3 were reduced from 68 to 65 to help minimize stress to the pumps.

MU 15 was FOOS on 14 May.

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

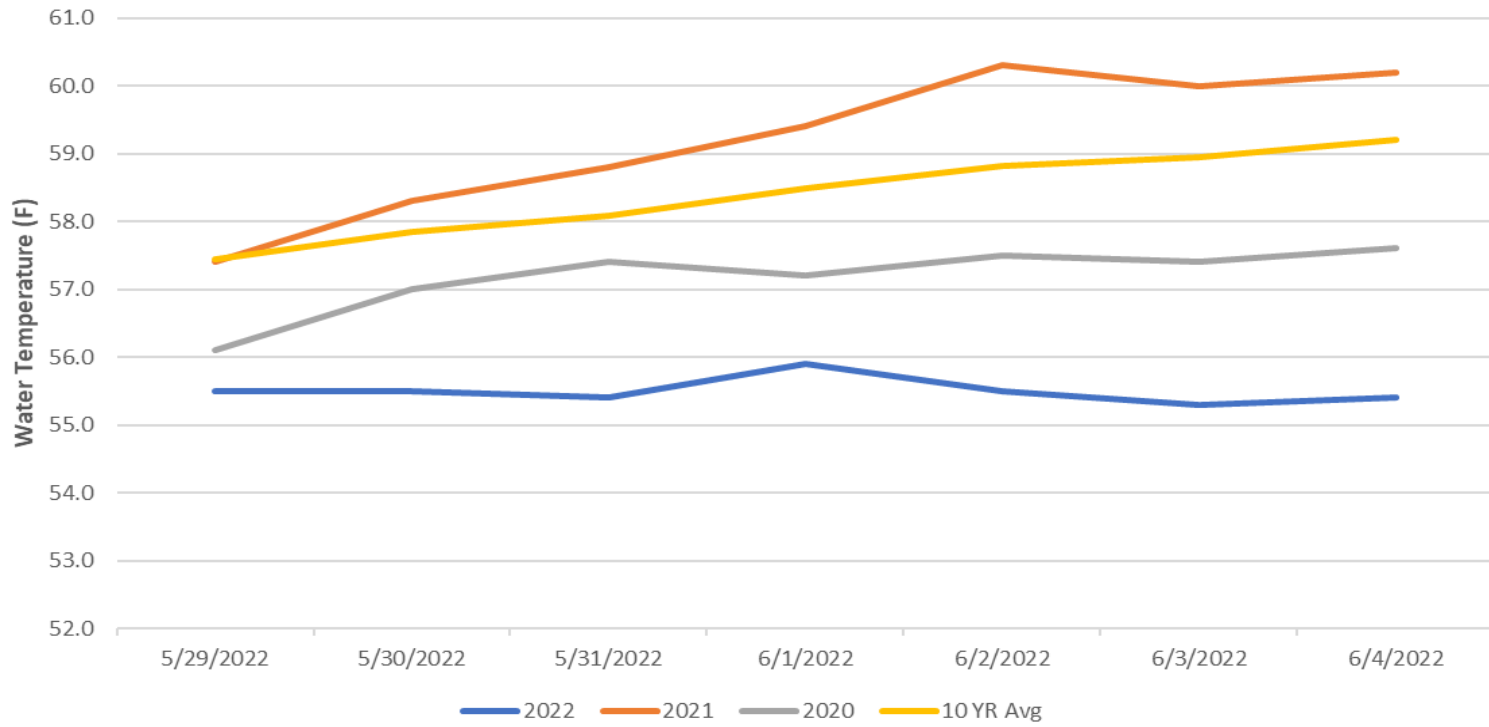
Cormorants have dispersed. Gull numbers continue to increase with more foraging observed in the tailrace. Pelican numbers starting to increase on Preacher's Island, with a few seen foraging in the tailrace. Grebe numbers are steady. (see 'Bird Count' tab for details).

2 of 125 avian lines down.

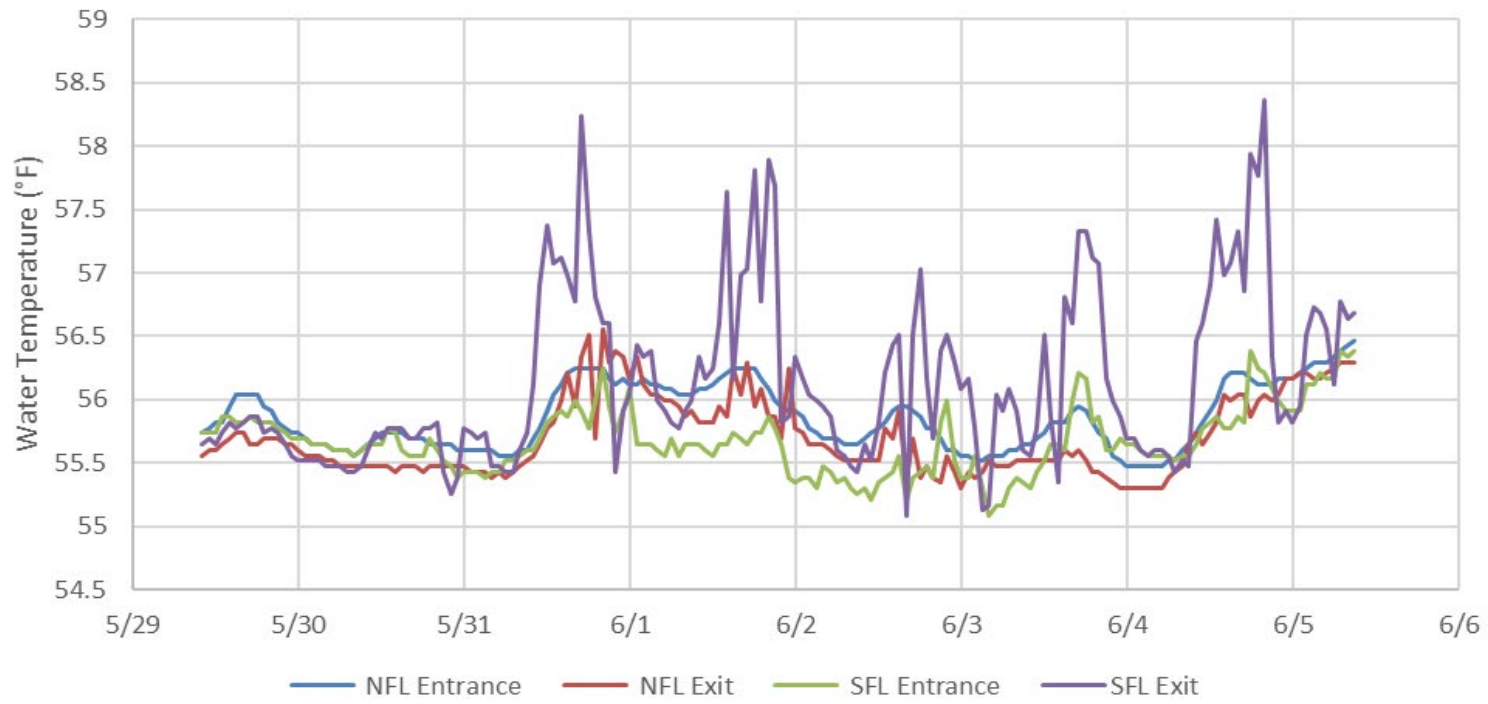
Pelicans on Preacher's Island: averaged 39 per day

Research:

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)
5/30/2022	Unit 4	3.09	68,0,68	163.7
5/30/2022	Unit 12	3.11	68,0,68	163.7
6/1/2022	Unit 4	2.90	68,0,68	163.5
6/1/2022	Unit 12	3.08	68,0,68	163.5
6/2/2022	Unit 4	2.99	65,0,65	163.5
6/2/2022	Unit 12	3.09	65,0,65	163.5

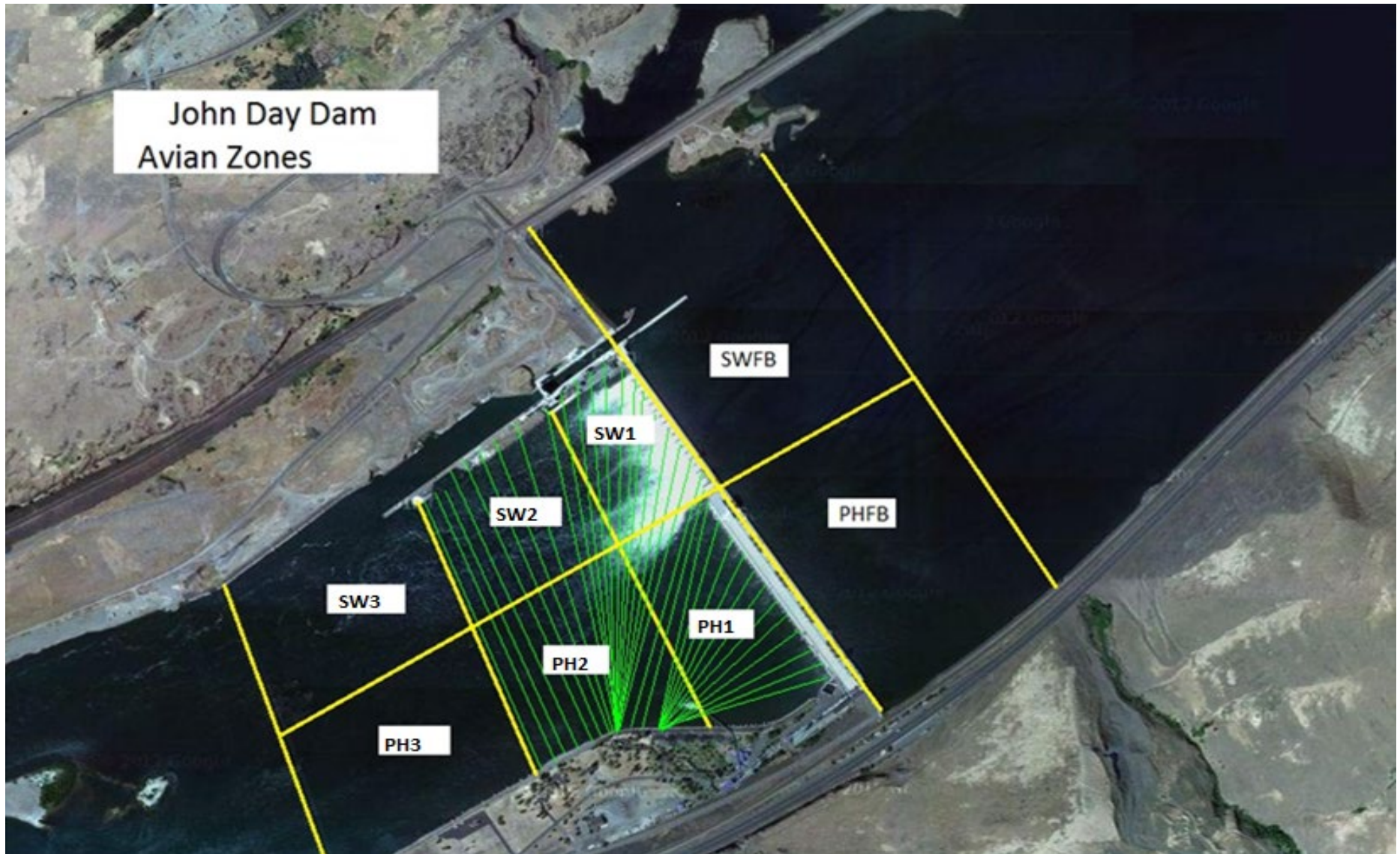
Average Weekly Velocity (ft/sec)	3.04
----------------------------------	------

JOHN DAY WEEKLY AVERAGES

	NE1 (Ft)	NE2 (Ft)	S.Ent (Ft)	SE1 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Bay19 (Ft)	Spill Vol. (kcfs)	Spill %	# Spillbays
Sunday	11.2	10.9	1.2	10.1	1.4	4.7	1.4	234.4	75.9	19
Sunday	12.4	12.1	1.2	11.3	1.5	4.4	1.1	96.1	32.2	19
Monday	12.0	11.7	1.2	10.9	1.4	4.5	1.2	231.0	70.5	19
Monday	11.9	11.6	1.0	11.2	1.9	4.4	1.5	231.1	70.1	19
Tuesday	10.7	10.4	1.4	9.7	1.4	4.3	1.7	231.2	69.6	19
Tuesday	11.5	11.3	1.3	10.7	1.6	4.5	1.5	231.3	76.7	19
Wednesday	11.8	11.5	1.4	9.9	1.6	4.6	1.6	231.2	67.3	19
Wednesday	12.8	12.6	1.3	10.9	1.4	4.9	1.3	105.1	31.8	19
Thursday	7.1	7.7	1.1	8.6	1.3	4.6	1.2	230.9	65.9	19
Thursday	12.1	12.1	1.4	9.3	1.4	4.6	1.3	105.3	31.6	19
Friday	11.3	11.3	1.5	8.1	1.7	4.6	1.4	239.4	67.8	19
Friday	11.7	11.8	1.2	9.5	1.3	4.7	1.5	122.8	34.5	19
Saturday	11.2	11.1	1.5	8.8	1.5	4.6	1.7	227.9	63.5	19
Saturday	11.7	11.7	1.2	9.1	1.2	4.6	1.4	139.8	38.1	19
AVG:	11.4	11.3	1.3	9.9	1.5	4.6	1.4	189.8	56.8	19.0

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	55.5	4.5	N/A	40
Monday	55.5	4.5	1	24
Tuesday	55.4	4.5	1	31
Wednesday	55.9	3.5	4	50
Thursday	55.5	3.5	5	40
Friday	55.3	3.5	4	81
Saturday	55.4	4.0	N/A	7
AVG	55.5	4.0	3	39

John Day Dam
Avian Zones



JDA Bird Counts: 5/29/22 to 6/4/22

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

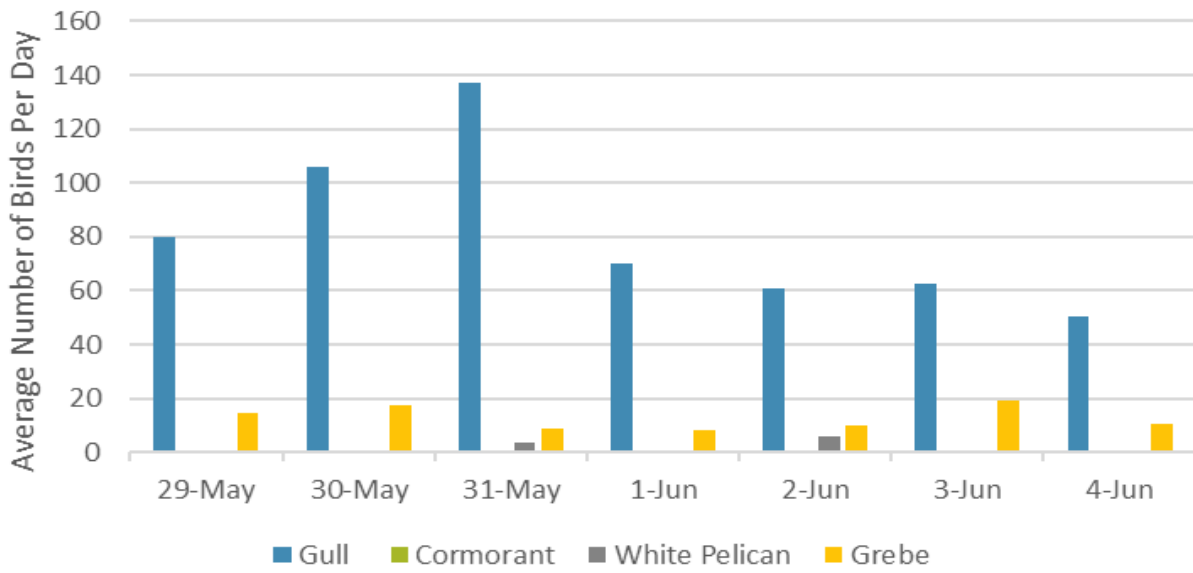
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
29-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
29-May	SWFB	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	18
29-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-May	PH3	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
29-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-May	SW2	8	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29
29-May	SW3	61	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117
Total/Survey		80		3		0		0		0		0		0		15		0		98		
30-May	PHFB	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	41
30-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	17
30-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-May	SW2	22	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
30-May	SW3	73	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158
Total/Survey		106		12		0		0		0		0		0		18		0		135		
31-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18
31-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-May	PH2	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
31-May	PH3	0	67	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	69
31-May	SW1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
31-May	SW2	16	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
31-May	SW3	102	54	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	161
Total/Survey		137		0		0		0		0		0		4		0		9		0		150
1-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	0	0	16
1-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Jun	SW2	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
1-Jun	SW3	90	25	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	116
Total/Survey		70		0		0		0		0		0		1		0		8		0		79

JDA Bird Counts: 6/2/22 to 6/4/22

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)	
2-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	20
2-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2-Jun	SW3	112	10	0	0	0	0	0	0	0	0	0	0	2	10	0	0	0	0	0	0	134
Total/Survey		61	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0	0	0	77
3-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19	0	0	38
3-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3-Jun	SW2	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
3-Jun	SW3	41	73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114
Total/Survey		63	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	19	0	0	0	82
4-Jun	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	21
4-Jun	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jun	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jun	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jun	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jun	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jun	SW2	2	7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	10
4-Jun	SW3	39	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92
Total/Survey		51	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	11	0	0	0	62
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	F	NF	F	NF	
Weekly Total		1134	29	0	0	0	0	0	0	0	0	0	0	22	0	177	0	0	0	0	0	
Avg/Survey		81	2	0	0	0	0	0	0	0	0	0	0	2	0	13	0	0	0	0	0	97

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

