

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 9/10/2022

Inspection Period: 9/4/2022 thru 9/10/2022



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
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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:	71.6 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	1	1.0' - 2.0'	AVG (Ft.)	1.2			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.2			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.43			
N. Entrance PH(Bay 19)differential	1	1.0' - 2.0'	AVG (Ft.)	1.4			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.2			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.3			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect					
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	3.5	Avg %	2.8	
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. High water temperature protocol went into effect on July 28th when water temperatures exceeded 70°F. Samples will continue to target 100 of the predominant out-migrant smolt on Mondays and Thursdays until daily average river water temperatures fall below 69.5 deg.

Adult Ladder Operations:

Both ladders are operating within criteria. Ladders switched to salmon mode on 7/19.

Project Operations:

Current outages: MU4, MU6, MU7, MU8, MU10, MU11, MU13, MU14, MU15, MU16.

TSWs were removed on 8/31. From August 15 through November 30, adult fish attraction flow will be provided by spilling through Bay 2 open one stop (approximately 1.6 kcfs) during daylight hours.

Maintenance:

South fish turbine #2 RTS on 8/18.

NFL HVAC unit replaced and returned to service on 6 July - repairs did not fully fix the HVAC system and the repairs are currently being investigated

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

Gull and Cormorant numbers are increasing. Grebe and Pelican numbers have decreased.

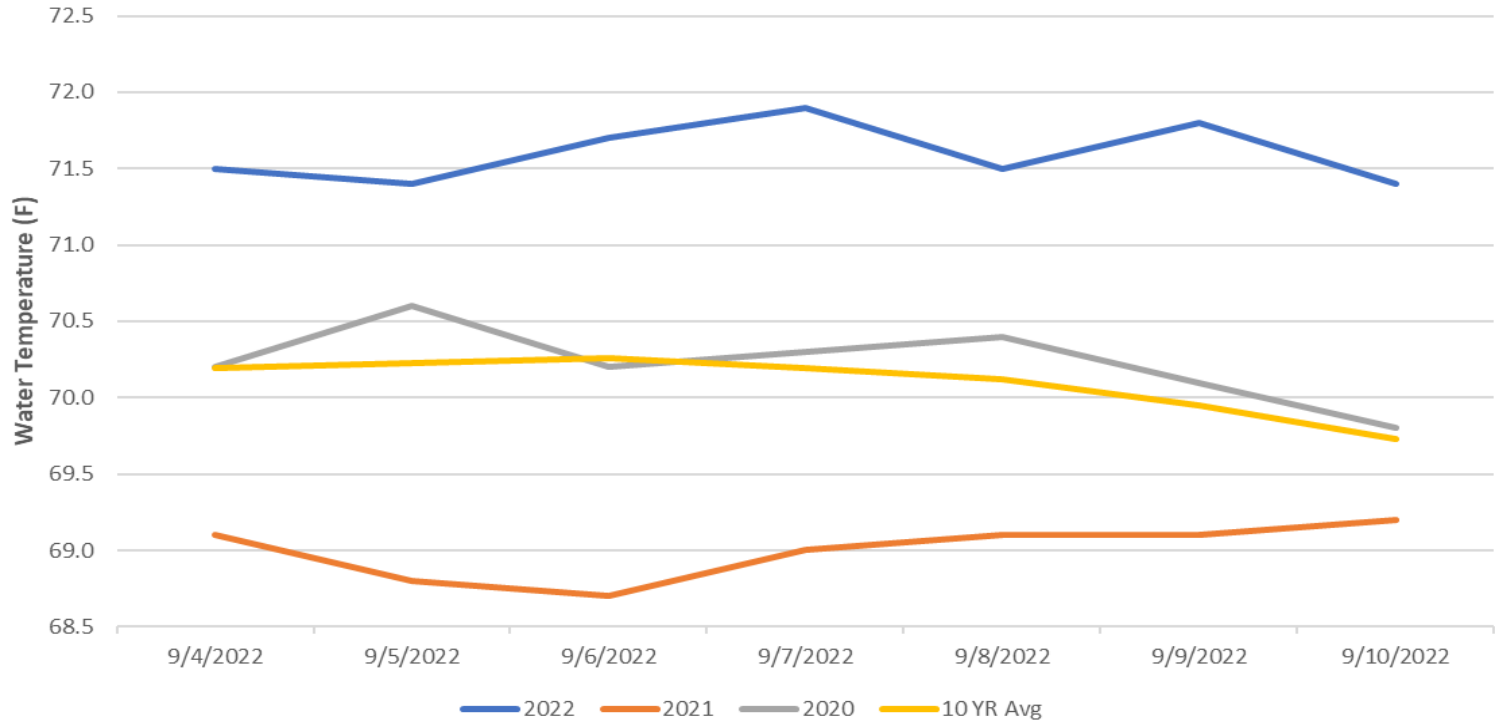
7 of 125 avian lines down.

Research:

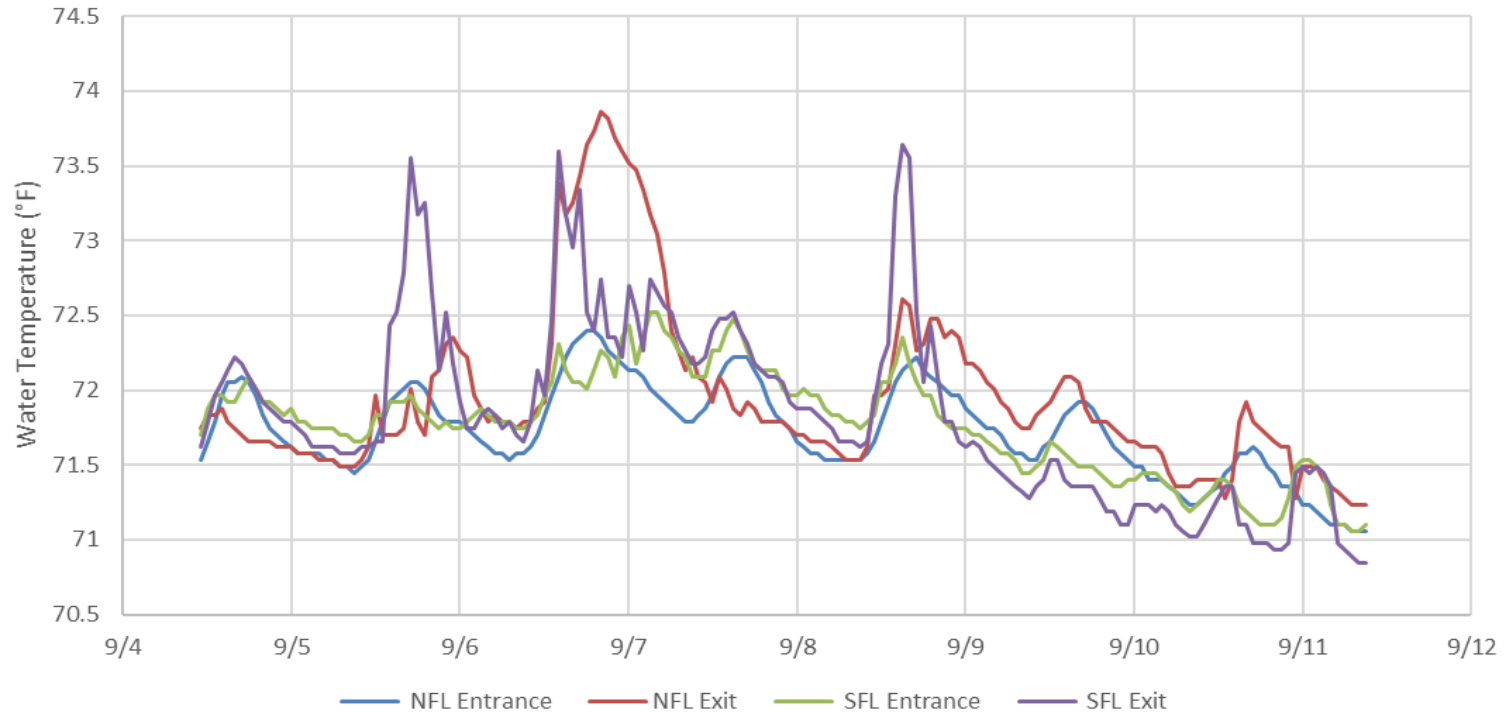
Adult fish counting started April 1.

USGS temperature probes were installed in the forebay on 3/29.

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)
9/5/2022	Unit 4	2.32	0,68,68	160.0
9/5/2022	Unit 12	2.54	0,68,68	160.0
9/7/2022	Unit 4	2.40	0,68,68	159.6
9/7/2022	Unit 12	2.46	0,68,68	159.6

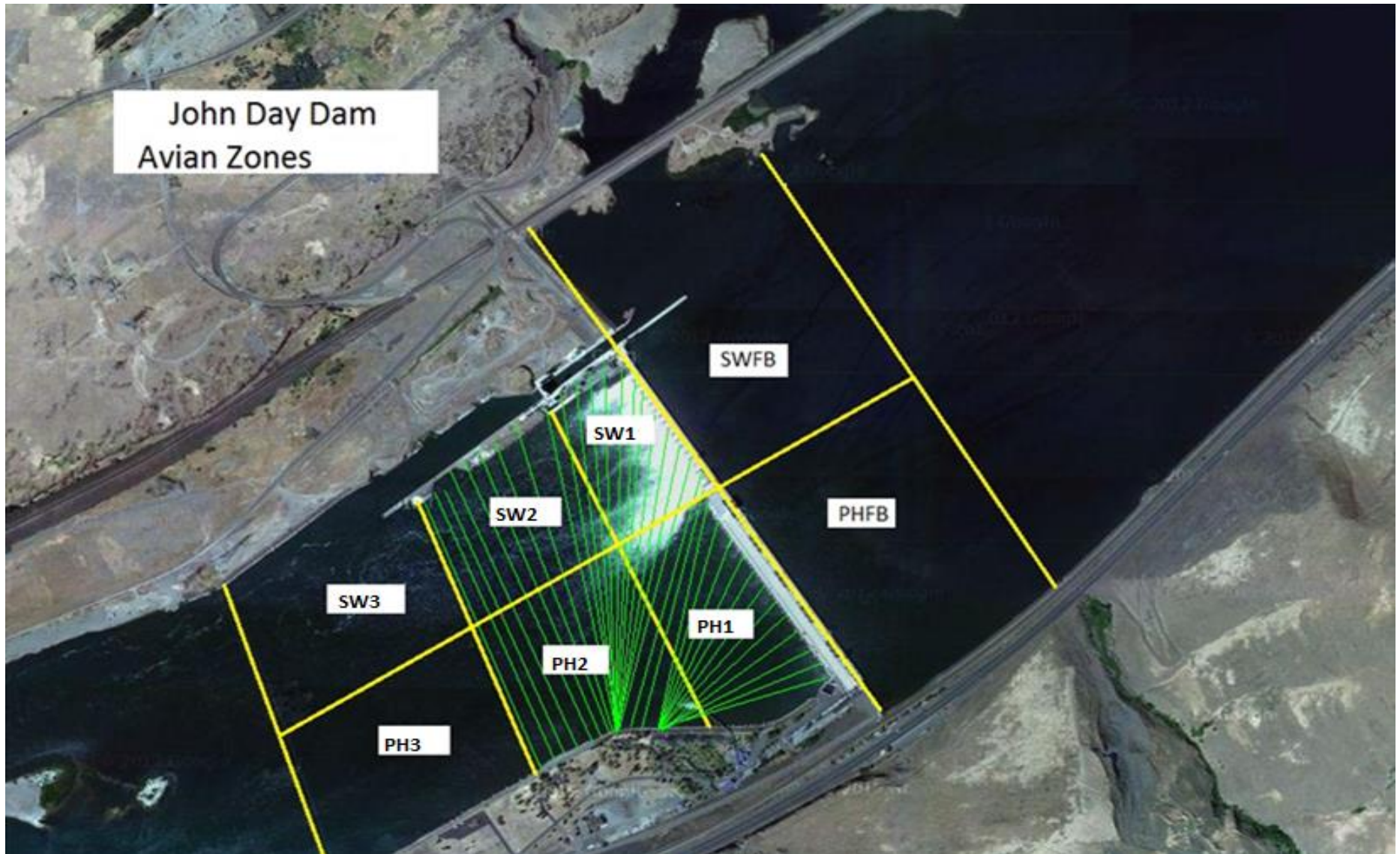
Average Weekly Velocity (ft/sec)	2.43
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JOHN DAY WEEKLY AVERAGES

	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	9.5	1.5	9.0	9.4	1.6	1.7	4.6	1.6	1.9	1
Sunday	10.0	1.1	9.5	9.9	1.3	1.7	4.7	1.5	1.2	1
Monday	9.0	1.3	8.3	8.7	1.8	1.7	4.5	1.6	2.3	1
Monday	9.5	1.3	9.0	9.4	1.6	1.6	4.7	1.5	1.4	1
Tuesday	9.4	1.3	8.7	9.1	1.7	1.5	4.6	1.6	1.6	1
Tuesday	10.0	0.0	9.5	9.9	0.3	1.4	4.7	1.5	1.1	1
Wednesday	9.0	1.3	9.0	9.0	1.4	1.5	4.6	1.5	1.4	1
Wednesday	9.4	1.3	9.2	9.2	1.6	1.4	4.7	10.1	7.1	3
Thursday	10.0	1.0	9.5	9.9	1.5	1.4	4.6	1.6	1.1	1
Thursday	8.5	1.4	9.0	8.4	1.1	1.6	4.6	20.1	15.1	5
Friday	8.8	1.2	9.8	9.7	1.3	1.5	4.5	1.6	1.3	1
Friday	8.8	1.2	9.9	9.7	1.4	1.5	4.5	1.5	1.0	1
Saturday	8.7	1.3	9.2	9.0	1.7	1.6	4.6	1.5	1.3	1
Saturday	8.7	1.3	9.2	9.0	1.7	1.5	4.6	1.5	1.3	1
AVG:	9.2	1.2	9.2	9.3	1.4	1.5	4.6	3.5	2.8	1.4

	Temp (F)	Secchi (Ft)	Average # of Pelicans on Island Per Day
Sunday	71.5	6.0	4
Monday	71.4	6.0	
Tuesday	71.7	6.0	
Wednesday	71.9	6.0	
Thursday	71.5	6.0	8
Friday	71.8	6.0	
Saturday	71.4	6.0	
AVG	71.6	6.0	6

John Day Dam
Avian Zones



JDA Bird Counts: 9/4/22 to 9/10/22

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

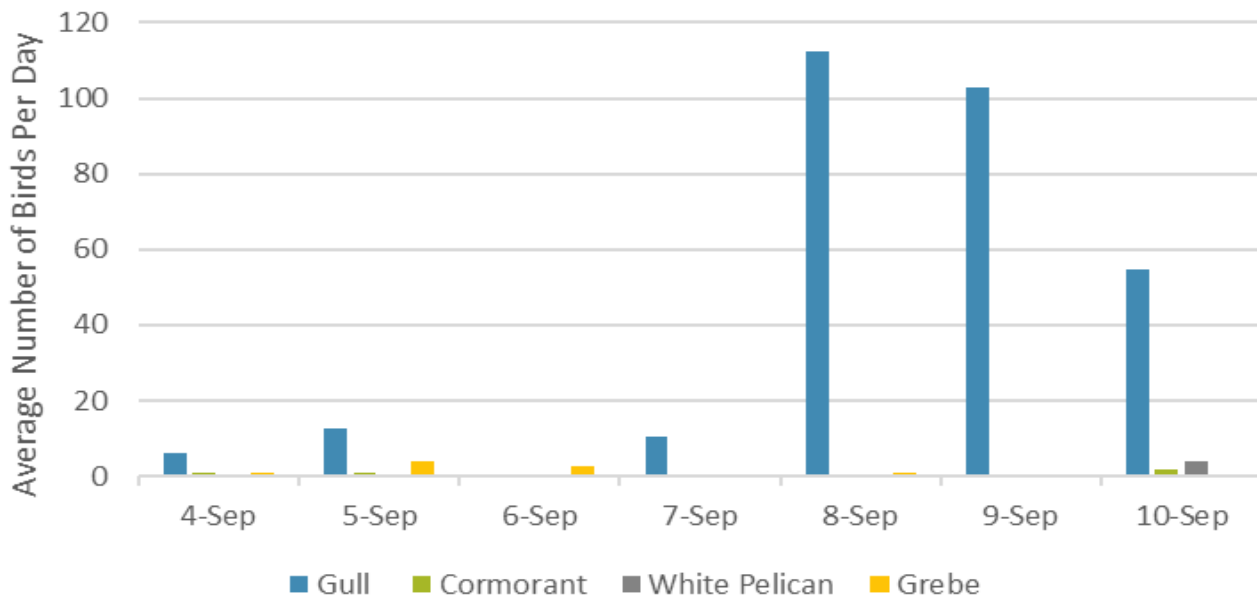
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total	
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)		
4-Sep	PHFB	5	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	11
4-Sep	SWFB	0	0	76	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	144
4-Sep	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep	PH3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
4-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Sep	SW2	0	0	1	0	0	0	16	27	0	0	0	0	0	0	0	0	0	0	0	0	0	44
4-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total/Survey		6		74		1		22		0		0		0		0		1		0		103	
5-Sep	PHFB	0	0	2	1	0	0	8	0	0	0	0	0	0	0	0	0	7	1	0	0	0	19
5-Sep	SWFB	0	0	96	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221
5-Sep	PH1	7	9	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
5-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Sep	PH3	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
5-Sep	SW1	0	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	1	1	0	0	19	27	0	0	0	0	0	0	2	2	0	0	0	0	0	52
5-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total/Survey		13		113		1		27		0		0		0		2		4		0		160	
6-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5
6-Sep	SWFB	0	0	50	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107
6-Sep	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6-Sep	PH3	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
6-Sep	SW1	0	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	15	13	0	0	0	0	0	0	0	2	0	0	0	0	0	30
6-Sep	SW3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total/Survey		0		78		0		14		0		0		0		1		3		0		95	
7-Sep	PHFB	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5
7-Sep	SWFB	0	0	20	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
7-Sep	PH1	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
7-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Sep	PH3	10	0	20	0	0	0	20	0	0	0	0	1	0	0	0	0	0	0	0	0	0	51
7-Sep	SW1	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Sep	SW3	0	0	20	0	0	0	0	20	0	0	0	0	0	3	4	0	0	0	0	0	0	47
Total/Survey		11		80		0		22		0		0		1		4		1		0		117	

JDA Bird Counts: 9/8/22 to 9/10/22

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)	
8-Sep	PHFB	0	0	21	0	0	0	8	0	0	0	0	0	0	0	0	0	2	0	0	0	31
8-Sep	SWFB	0	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
8-Sep	PH1	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
8-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Sep	PH3	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	193
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8-Sep	SW3	7	0	4	0	0	0	4	4	0	0	0	0	0	1	0	0	0	0	0	0	20
Total/Survey		113		38		0		8		0		0		1		0		1		0		160
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep	PH1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9-Sep	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep	PH3	143	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	144
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Sep	SW3	15	48	0	0	0	0	8	0	0	0	0	0	0	0	8	0	0	0	0	0	79
Total/Survey		103		0		1		4		0		0		1		4		0		0		112
10-Sep	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Sep	SWFB	0	0	0	181	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181
10-Sep	PH1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
10-Sep	PH2	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
10-Sep	PH3	0	67	0	0	0	2	0	0	0	0	0	0	0	8	0	0	0	0	0	0	77
10-Sep	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Sep	SW2	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
10-Sep	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total/Survey		55		91		2		8		0		0		4		0		0		0		159
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F		NF		F		NF		F		NF		F		NF		F		NF		
Weekly Total		598		944		9		209		0		0		11		21		18		0		905
Avg/Survey		43		67		1		15		0		0		1		2		1		0		129

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

