

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/20/2022

Inspection Period: 8/14/2022 thru 8/20/2022



**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:	71.3 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.)	1.4			
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	0	1.0' - 2.0'	AVG (Ft.)	1.5			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	10.0			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.72			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.7			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.6			
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 visual inspection 8/22-8/25				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	AVG (kcfs)	26.3	Avg %	14.8	
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.
Concluded block study on 8/16 (8/2-8/16, 2-on 2-off days alternating between shad/salmon mode on SFL, See MOC # JDA07)

Project Operations:

Current outages: MU4, MU6, MU7, MU10, MU11, MU15
Late Summer spill started - 08/15-8/31 at 20kcfs.
USDA avian hazing ended July 31.

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.

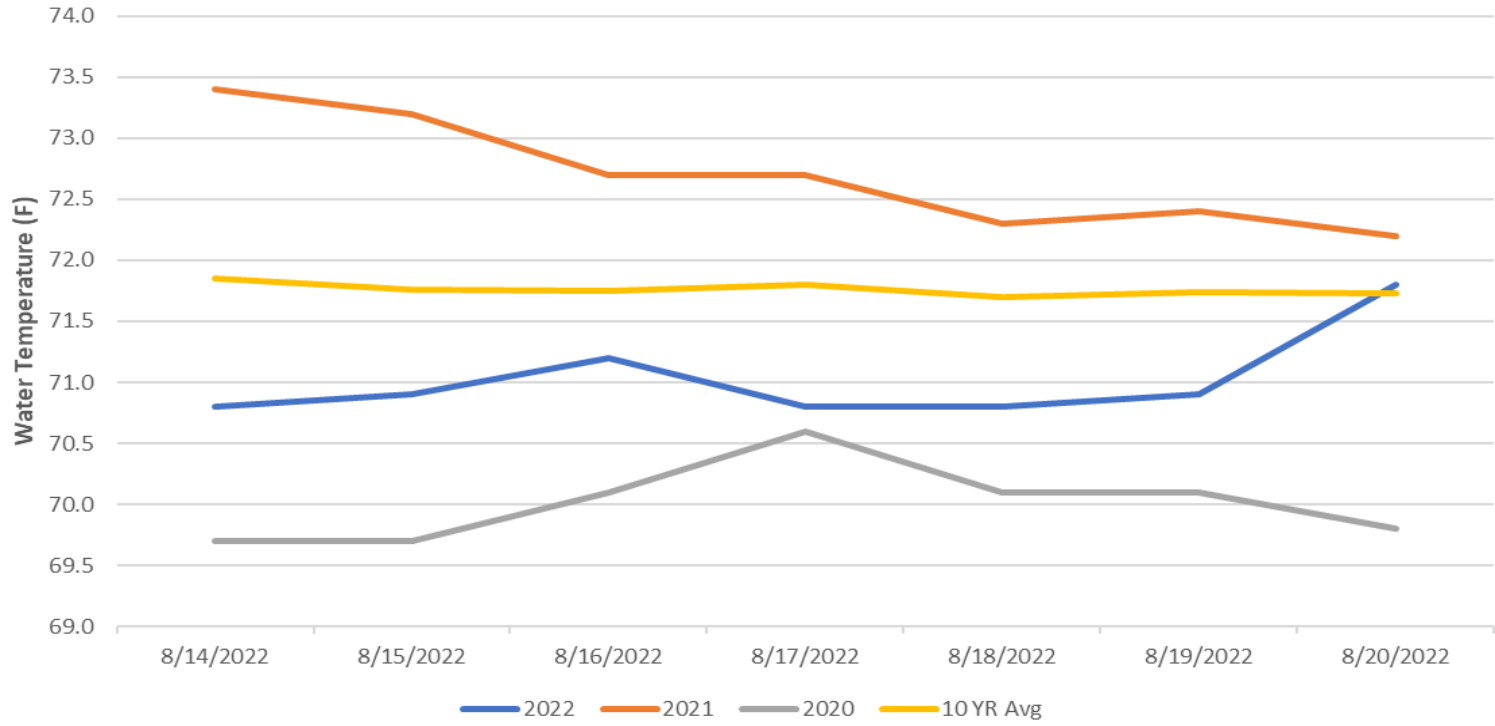
Bird Data:

Gull numbers are starting to increase with the increase of juvenile shad. A few cormorants have returned to the project. Grebe numbers have decreased. Pelican numbers are decreasing .
5 of 125 avian lines down.

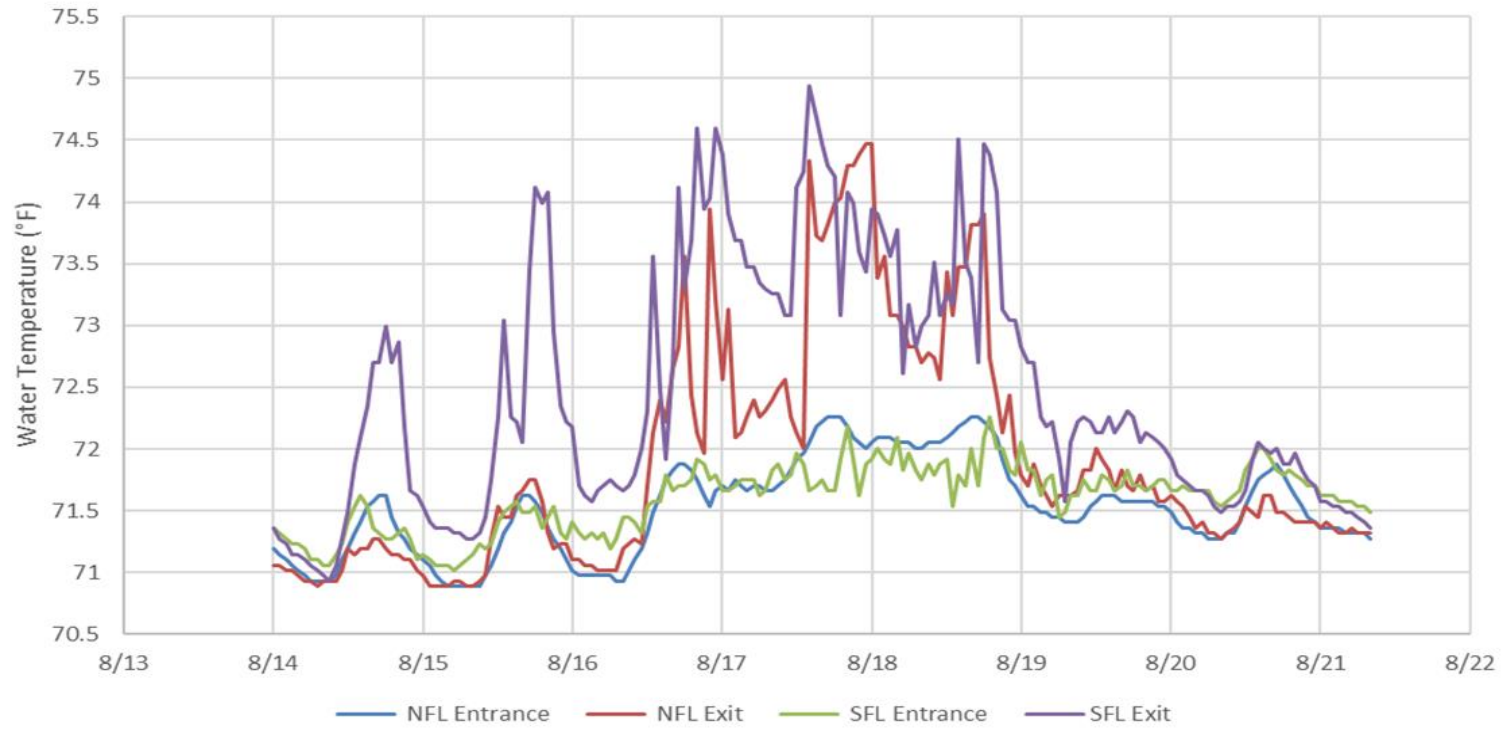
Research:

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)
8/17/2022	Unit 4	2.63	68,0,68	160.3
8/17/2022	Unit 12	2.65	68,0,68	160.3
8/20/2022	Unit 4	2.74	68,0,68	160.1
8/20/2022	Unit 12	2.87	68,0,68	161.2

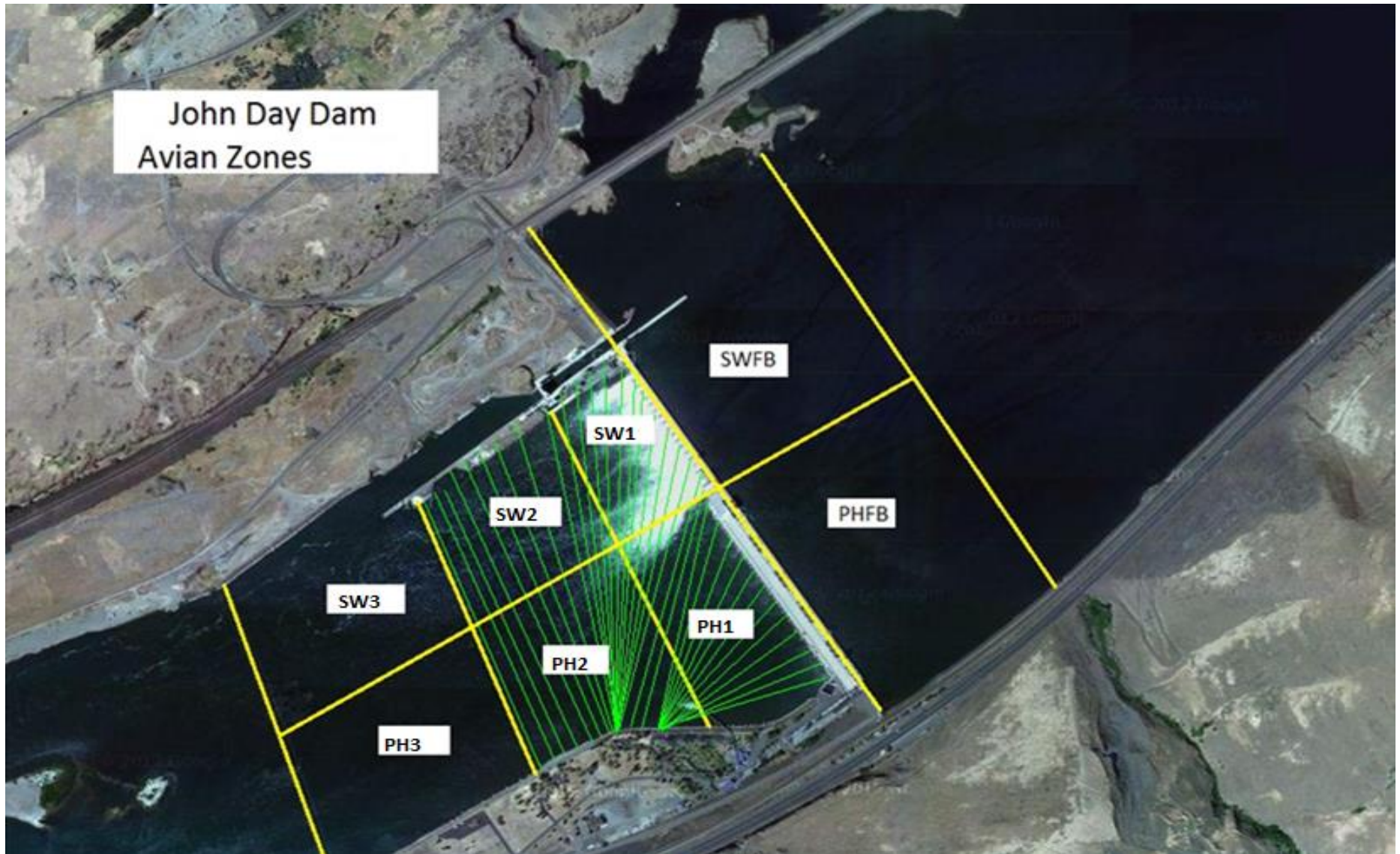
Average Weekly Velocity (ft/sec)	2.72
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JOHN DAY WEEKLY AVERAGES

	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	8.5	1.6	9.1	9.3	1.7	1.5	4.9	56.9	34.4	19
Sunday	8.9	1.4	9.2	9.4	1.8	1.6	4.4	65.0	35.3	19
Monday	9.0	1.5	8.9	9.1	1.8	1.5	4.6	20.8	16.5	3
Monday	9.5	1.5	9.7	9.9	1.6	1.4	4.5	21.3	12.7	3
Tuesday	11.2	1.3	10.2	10.4	1.5	1.6	4.6	20.8	12.7	3
Tuesday	10.6	1.9	9.7	9.9	1.8	1.4	4.7	21.7	11.3	3
Wednesday	9.9	1.3	8.8	9.0	1.9	1.4	4.8	21.6	11.7	3
Wednesday	11.2	1.0	10.1	10.2	1.8	1.4	4.6	21.6	11.1	3
Thursday	9.8	2.0	8.9	9.1	1.8	1.5	4.5	21.3	11.5	3
Thursday	11.6	1.7	10.7	10.9	1.3	1.3	4.6	21.3	10.0	3
Friday	10.3	1.2	9.5	9.7	1.5	1.4	4.7	10.4	6.5	2
Friday	11.8	1.8	10.7	10.9	1.1	1.4	4.6	21.6	10.1	3
Saturday	8.1	1.3	9.3	9.5	2.0	1.4	4.6	21.7	12.9	3
Saturday	9.0	1.2	10.1	10.3	1.8	1.4	4.7	21.7	10.6	3
AVG:	10.0	1.5	9.6	9.8	1.7	1.4	4.6	26.3	14.8	5.2

	Temp (F)	Secchi (Ft)	Average # of Pelicans on Island Per Day
Sunday	70.8	6.0	109
Monday	70.8	6.0	76
Tuesday	70.9	6.0	83
Wednesday	71.8	6.0	93
Thursday	72.3	6.0	70
Friday	71.4	6.0	103
Saturday	71.3	6.0	50
AVG	71.3	6.0	83

John Day Dam
Avian Zones



JDA Bird Counts: 8/14/22 to 8/20/22

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

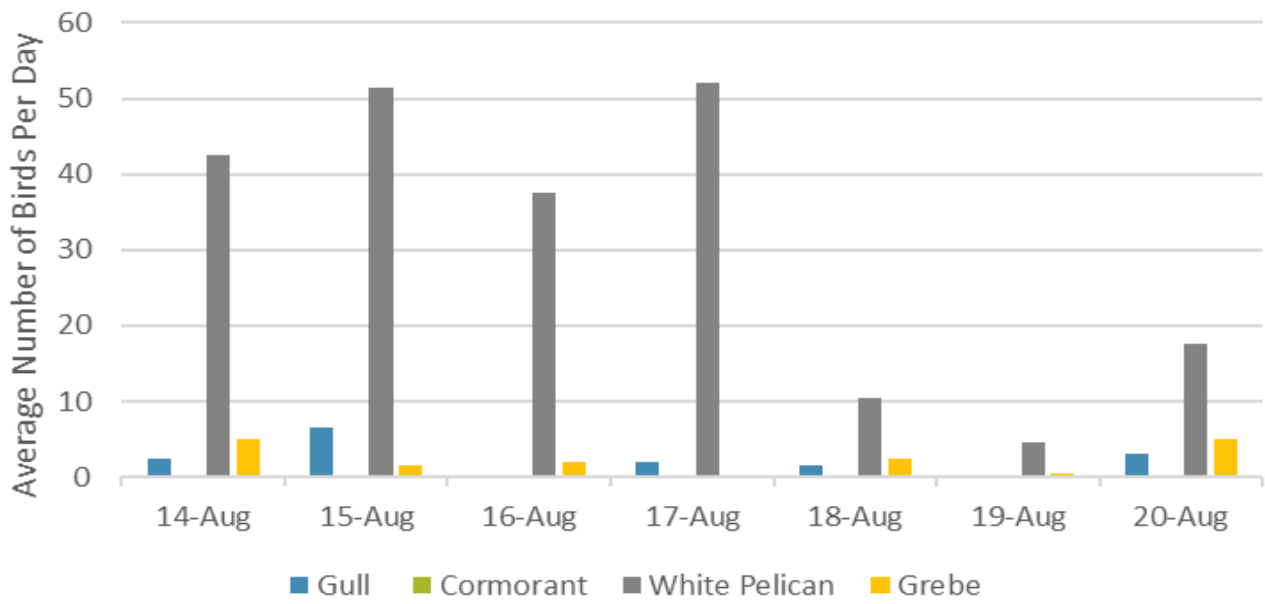
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
14-Aug	PHFB	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	4	6	0	0	15
14-Aug	SWFB	0	0	31	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166
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	8	5	0	0	0	0	0	0	13
14-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
14-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	17
14-Aug	SW3	5	0	0	0	0	0	0	0	0	0	0	0	31	11	0	15	0	0	0	0	62
Total/Survey		3		84		0		2		0		0		43		8		5		0		143
15-Aug	PHFB	0	1	0	0	0	0	12	0	0	0	0	0	0	0	0	0	2	1	0	0	16
15-Aug	SWFB	0	0	0	60	0	0	0	10	0	0	0	0	0	3	0	0	0	0	0	0	73
15-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
15-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	15	20	0	0	0	0	0	0	35
15-Aug	SW3	12	0	0	0	0	0	0	0	0	0	0	0	32	30	0	0	0	0	0	0	74
Total/Survey		7		30		0		11		0		0		52		0		2		0		101
16-Aug	PHFB	0	0	2	0	0	0	10	0	0	0	0	0	0	0	0	0	4	0	0	0	16
16-Aug	SWFB	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
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	0	0	0	0	0	0	0	0	0
16-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3
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	0	0	0	0	0	0	0	0	0	0	0	0	15	20	0	0	0	0	0	0	35
16-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	27	10	0	0	0	0	0	0	37
Total/Survey		0		35		0		5		0		0		38		0		2		0		79
17-Aug	PHFB	4	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	13
17-Aug	SWFB	0	0	12	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	17
17-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
17-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
17-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	50
17-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
17-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	0	11
Total/Survey		2		6		0		5		0		0		52		0		0		0		65

JDA Bird Counts: 8/18/22 to 8/20/22

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)	
18-Aug	PHFB	2	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	5	0	0	0	33
18-Aug	SWFB	0	1	20	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46
18-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	2	12	0	0	0	0	0	0	0	14
18-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	6
18-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total/Survey		2		23		0		13		0		0		11		0		3		0		50
19-Aug	PHFB	0	0	0	1	0	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	10
19-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	2	3	0	0	0	0	0	0	0	5
19-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Total/Survey		0		1		0		4		0		0		5		0		1		0		10
20-Aug	PHFB	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	5	5	0	0	0	13
20-Aug	SWFB	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
20-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
20-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
20-Aug	PH3	6	0	0	0	0	0	0	0	0	0	0	6	15	0	0	0	0	0	0	0	27
20-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
20-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	6
20-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
Total/Survey		3		17		0		0		0		0		18		0		5		0		43
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		31	389	0	78	0	0	432	15	33	0	489										
Avg/Survey		2	28	0	6	0	0	31	1	2	0	70										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

