

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/6/2022

Inspection Period: 7/31/2022 thru 8/6/2022



**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:	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.)	1.6			
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.)	1.6			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.1			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.77			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8			
Entrance weir NE1	1	depth (≥ 8')	AVG (Ft.)	9.3			
Entrance weir NE2	1	depth (≥ 8')	AVG (Ft.)	9.5			
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)	65.8	Avg %	34.8	
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, MU10, MU11, MU15

Summer spill started 06/16.

USDA avian hazing ended July 31.

Tailwater average weekly TDG: 115.0

Maintenance:

South fish turbine #2 was forced out of service on 30 March with an excessive vibration issue.

NFL HVAC unit replaced and returned to service on 6 July

Calibration:

All gauges within the 0.3' criteria.

Bird Data:

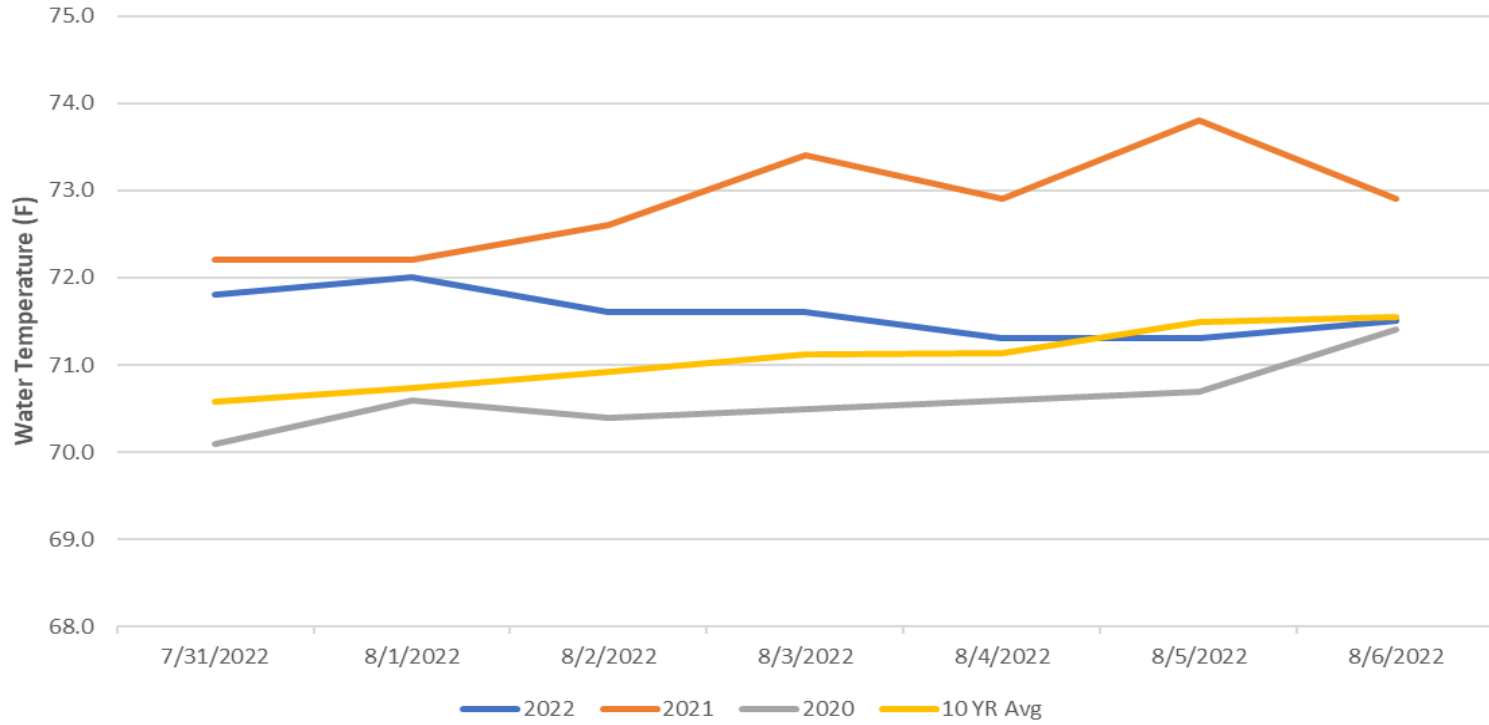
Cormorant number are low. Gull numbers have decreased. Grebe numbers have decreased. Pelican numbers are increasing with more foraging in tailrace being observed. Pelicans on Preacher's Island: averaged 261 per day. (see 'Bird Count' tab for details).

5 of 125 avian lines down.

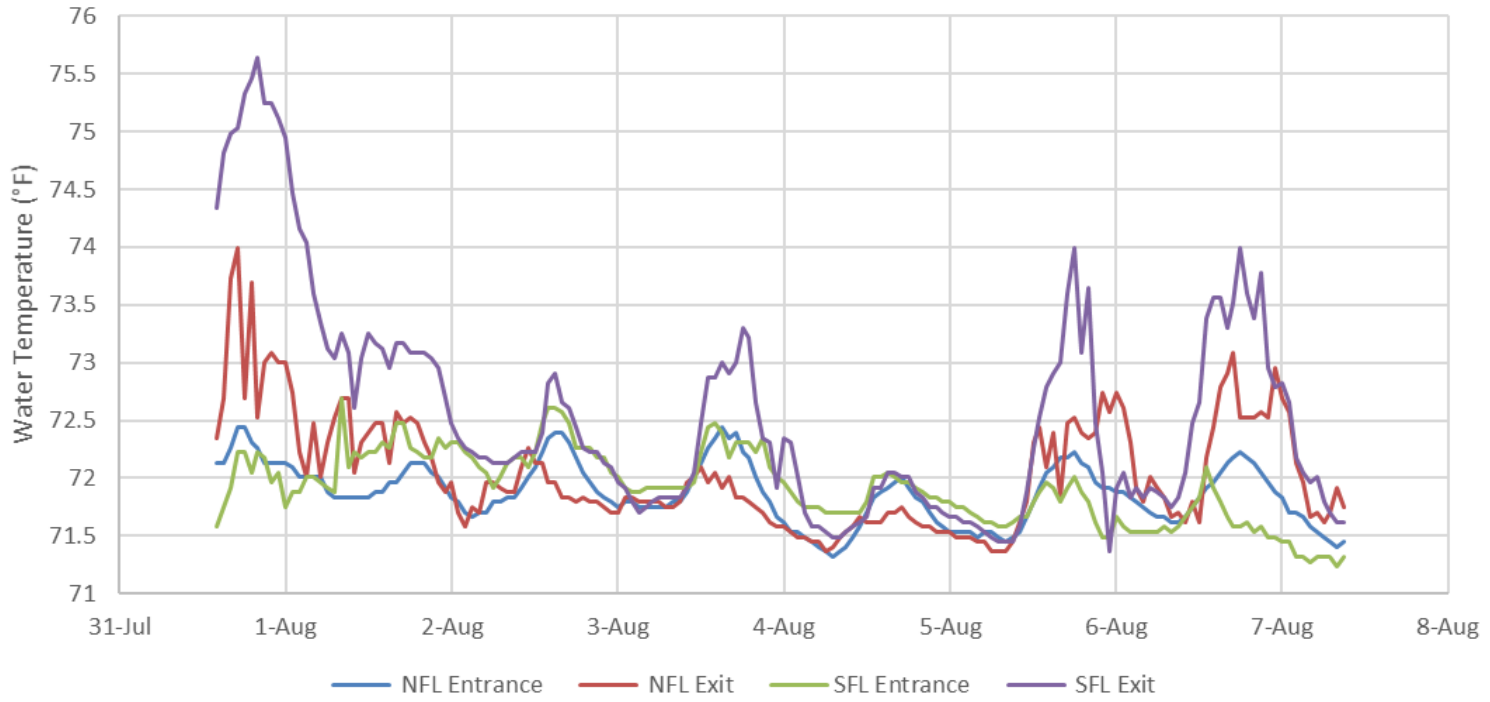
Research:

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)
8/1/2022	Unit 4	2.81	68,0,68	161.1
8/1/2022	Unit 12	2.93	68,0,68	161.1
8/4/2022	Unit 4	2.60	68,0,68	160.0
8/4/2022	Unit 12	2.68	68,0,68	160.0
8/6/2022	Unit 4	2.75	68,0,68	160.5
8/6/2022	Unit 12	2.83	68,0,68	160.5

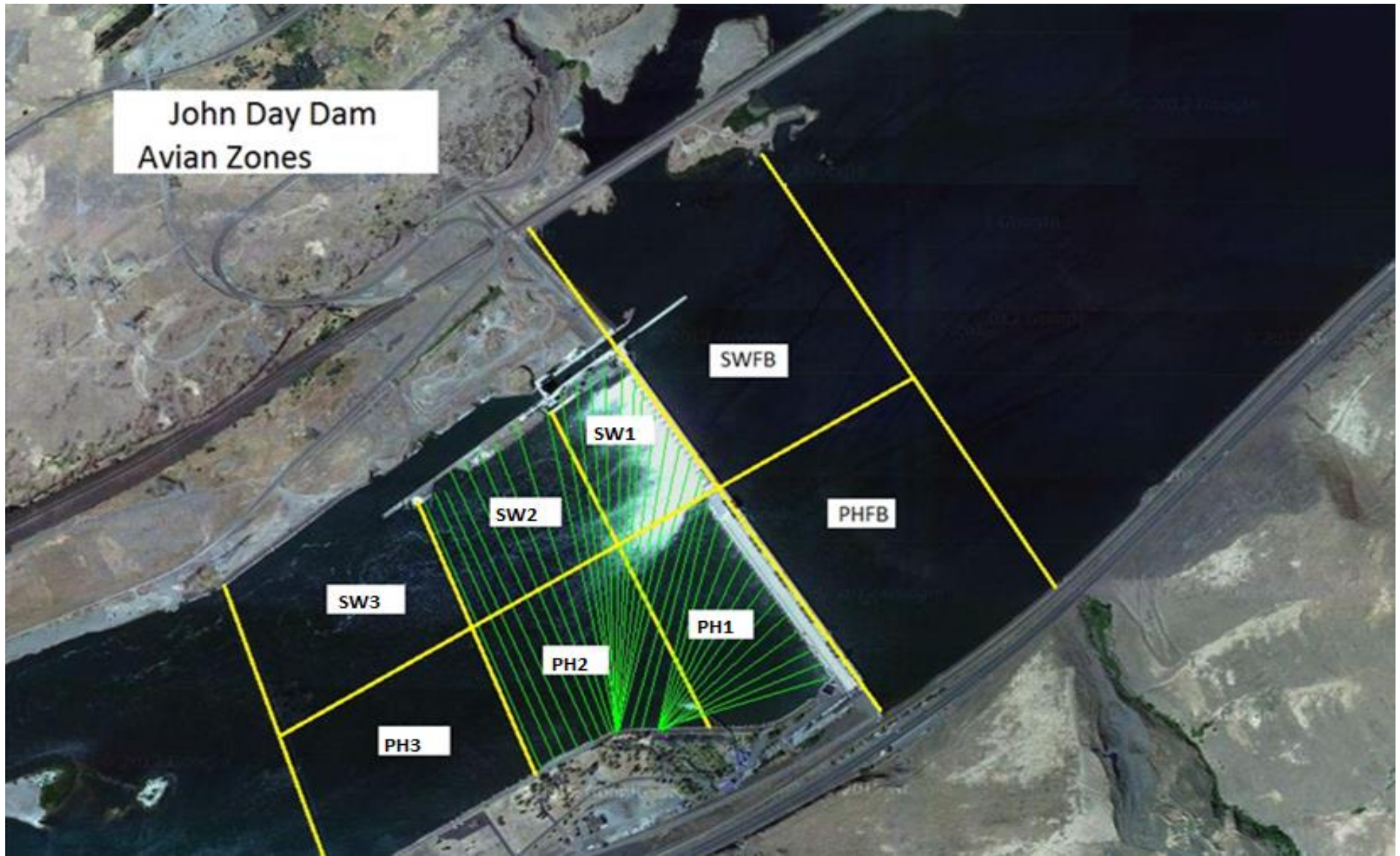
Average Weekly Velocity (ft/sec)	2.77
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JOHN DAY WEEKLY AVERAGES

	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	8.8	1.6	7.8	7.8	2.0	1.5	4.5	56.1	35.0	19
Sunday	9.4	1.5	8.4	8.4	1.9	1.5	4.6	68.5	35.0	19
Monday	8.0	1.8	9.1	9.3	2.0	1.6	4.5	65.0	35.3	19
Monday	9.3	1.6	9.8	10.0	2.0	1.6	4.6	75.1	34.7	19
Tuesday	8.6	1.7	9.2	9.4	1.9	1.6	4.6	67.4	35.4	19
Tuesday	8.6	1.7	9.1	9.4	2.0	1.5	4.5	67.2	34.8	19
Wednesday	9.6	1.4	8.9	9.1	1.8	1.4	4.6	61.5	34.3	19
Wednesday	10.8	1.3	11.4	11.3	1.3	1.4	4.6	88.9	34.4	19
Thursday	8.3	1.7	9.2	9.4	1.7	1.5	4.6	44.1	35.0	19
Thursday	9.3	1.5	9.6	9.8	1.6	1.5	4.6	54.4	33.7	19
Friday	8.6	1.5	9.0	9.2	1.8	1.7	4.6	71.2	35.0	19
Friday	9.7	1.6	10.1	10.3	1.8	1.6	4.6	70.1	34.3	19
Saturday	8.8	1.5	9.2	9.4	1.9	1.7	4.7	61.9	35.2	19
Saturday	9.4	1.4	9.8	10.0	1.8	1.6	4.7	70.1	35.0	19
AVG:	9.1	1.6	9.3	9.5	1.8	1.6	4.6	65.8	34.8	19.0

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	71.8	6.0	N/A	351
Monday	72.0	6.0	34	305
Tuesday	71.6	6.0	N/A	264
Wednesday	71.6	6.0	N/A	284
Thursday	71.3	6.0	46	266
Friday	71.3	6.0	N/A	185
Saturday	71.5	6.0	N/A	170
AVG	71.6	6.0	40	261

John Day Dam
Avian Zones



JDA Bird Counts: 7/31/22 to 8/6/22

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

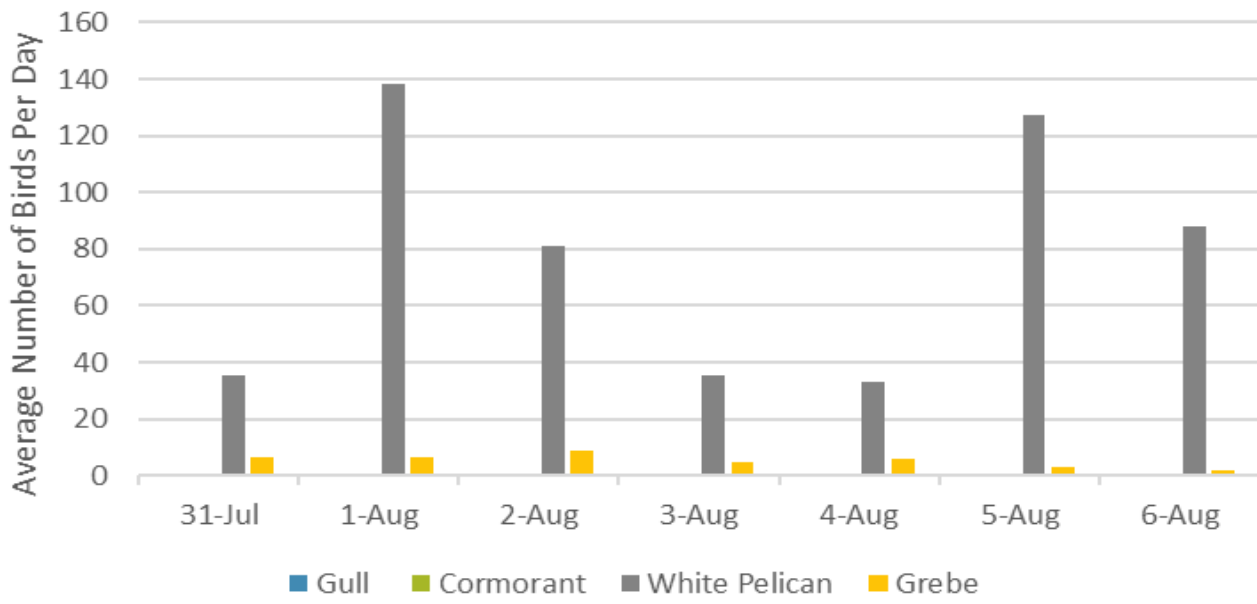
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
31-Jul	PHFB	0	0	6	12	0	0	0	0	0	0	0	0	5	1	0	0	8	5	0	0	37
31-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	8
31-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
31-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
31-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	10	10	0	0	0	0	0	0	20
31-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
31-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Total/Survey		0		9		0		0		0		0		36		0		7		0		51
1-Aug	PHFB	0	0	0	6	0	0	0	0	0	0	0	0	3	2	0	0	6	7	0	0	24
1-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	4	5	0	0	0	0	0	0	9
1-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	14	40	0	0	0	0	0	0	54
1-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	67	86	0	0	0	0	0	0	153
1-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	8
1-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	12	15	0	0	0	0	0	0	27
1-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	3	18	0	0	0	0	0	0	21
Total/Survey		0		3		0		0		0		0		139		0		7		0		148
2-Aug	PHFB	0	0	1	0	0	0	7	0	0	0	0	0	3	1	0	0	6	6	0	0	24
2-Aug	SWFB	0	0	9	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0	17
2-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	17
2-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	15	31	0	0	0	0	0	0	46
2-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	7	41	0	0	0	0	0	0	48
2-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	12
2-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	0	16
2-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	4	13	0	0	0	0	0	0	17
Total/Survey		0		5		0		4		0		0		81		0		9		0		99
3-Aug	PHFB	0	0	9	12	0	0	0	0	0	0	0	0	1	3	0	0	5	5	0	0	35
3-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	2	10	0	0	0	0	0	0	12
3-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	15	40	0	0	0	0	0	0	55
Total/Survey		0		11		0		0		0		0		36		0		5		0		51

JDA Bird Counts: 8/4/22 to 8/6/22

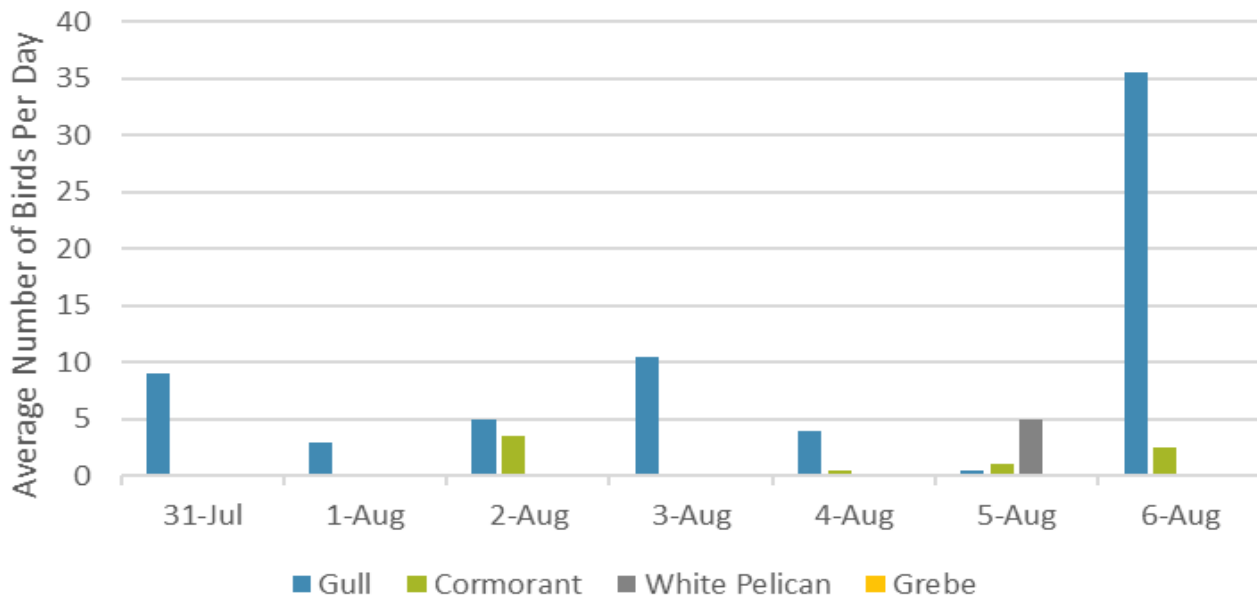
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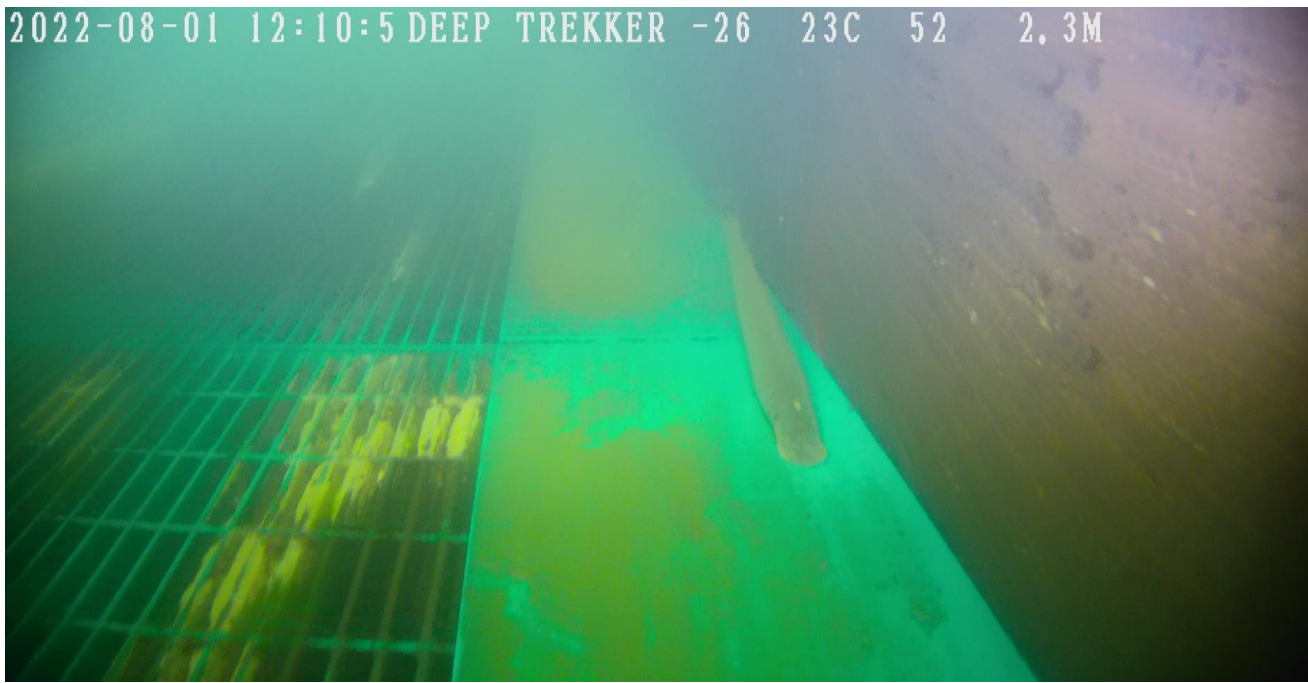
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
4-Aug	PHFB	0	0	2	6	0	0	1	0	0	0	0	0	4	6	0	0	5	7	0	0	31
4-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
4-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
4-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
4-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	17	15	0	0	0	0	0	0	32
Total/Survey		0	0	4	6	0	0	1	0	0	0	0	0	33	0	0	0	6	0	0	0	44
5-Aug	PHFB	0	0	1	0	0	0	2	0	0	0	0	0	3	3	0	0	6	0	0	0	15
5-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	18
5-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
5-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	11	73	0	0	0	0	0	0	84
5-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	62	10	0	0	0	0	0	79
5-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	41	23	0	0	0	0	0	0	64
Total/Survey		0	0	1	0	0	0	1	0	0	0	0	0	128	5	3	0	3	0	0	0	137
6-Aug	PHFB	0	0	2	7	0	0	0	5	0	0	0	0	0	0	0	0	4	0	0	0	18
6-Aug	SWFB	0	0	27	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62
6-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	12
6-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	20	18	0	0	0	0	0	0	38
6-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	63	11	0	0	0	0	0	0	74
6-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
6-Aug	SW2	0	0	0	0	1	0	0	0	0	0	0	0	24	4	0	0	0	0	0	0	29
6-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	17	5	0	0	0	0	0	0	22
Total/Survey		0	0	36	7	1	0	3	5	0	0	0	0	88	0	2	0	2	0	0	0	129
Totals		Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F	F	NF	NF	F	F	NF	NF	F	F	NF	NF	F	F	NF	NF	F	F	NF	NF	
Weekly Total		0	0	135	7	1	0	15	5	0	0	0	0	1078	10	76	0	0	0	0	0	
Avg/Survey		0	0	10	1	0	0	1	1	0	0	0	0	77	1	5	0	0	0	0	0	94

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds





Lamprey in NFL during AWS ROV inspection on 8/1/22.