

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 7/23/2022

Inspection Period: 7/17/2022 thru 7/23/2022



**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:	66.8 F
						Secchi:	5.5 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.)	9.2				
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.65				
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8				
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.3				
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	next visual inspection 7/25-7/28					
Turbine trashrack drawdown	0	<1.5', wkly						
Vert barrier screen drawdown	0	<1.2', wkly						
Spill volume	0	per FPP	AVG (kcfs)	76.6	Avg %	35.2		
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. July 4 - 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 salmon mode on 7/19.

Project Operations:

Current outages: MU4, MU6, MU7, MU10, MU11.

Summer spill started 06/16.

USDA avian hazing started 16 April.

Tailwater average weekly TDG: 115.1

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:

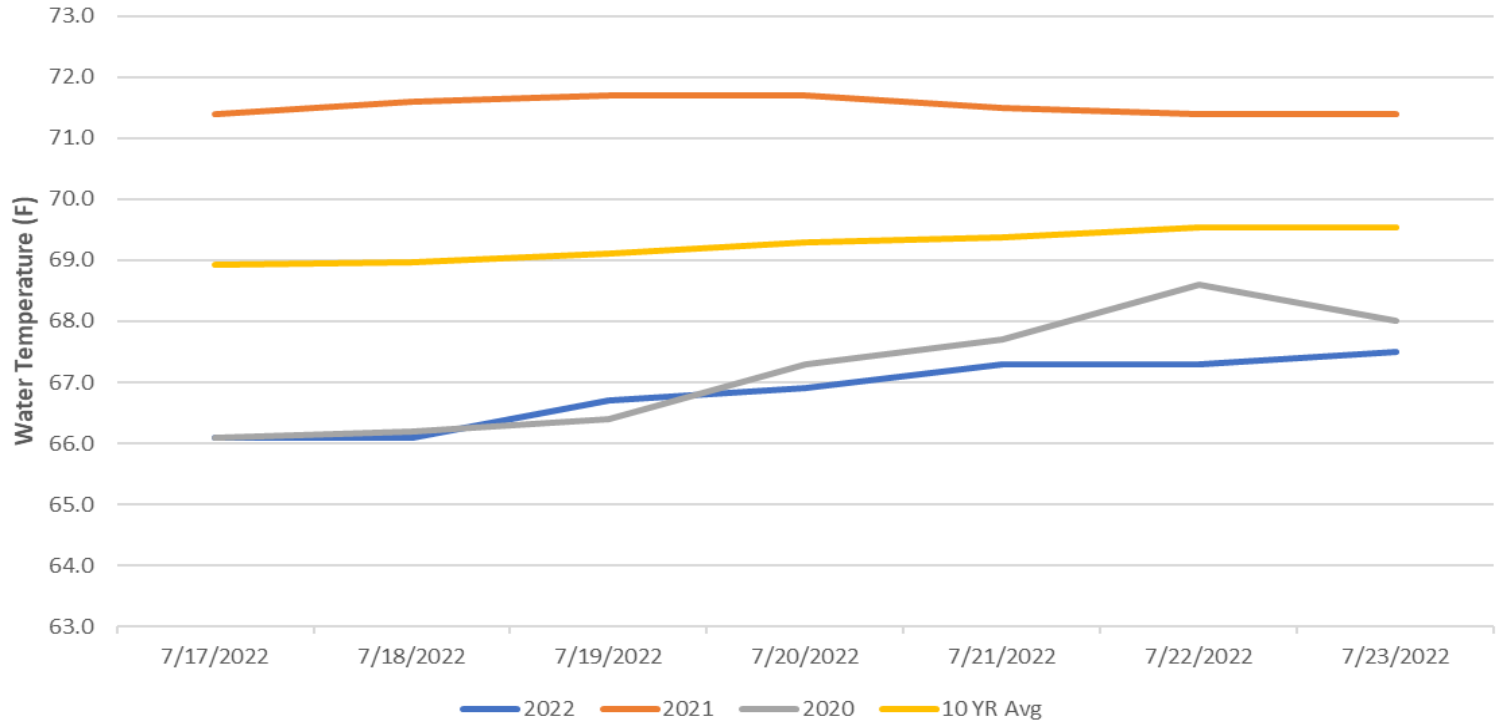
Cormorants have dispersed. Gull numbers have decreased. Grebe numbers are steady. Pelican numbers are increasing with more foraging in tailrace being observed. Pelicans on Preacher's Island: averaged 258 per day. (see 'Bird Count' tab for details).

5 of 125 avian lines down.

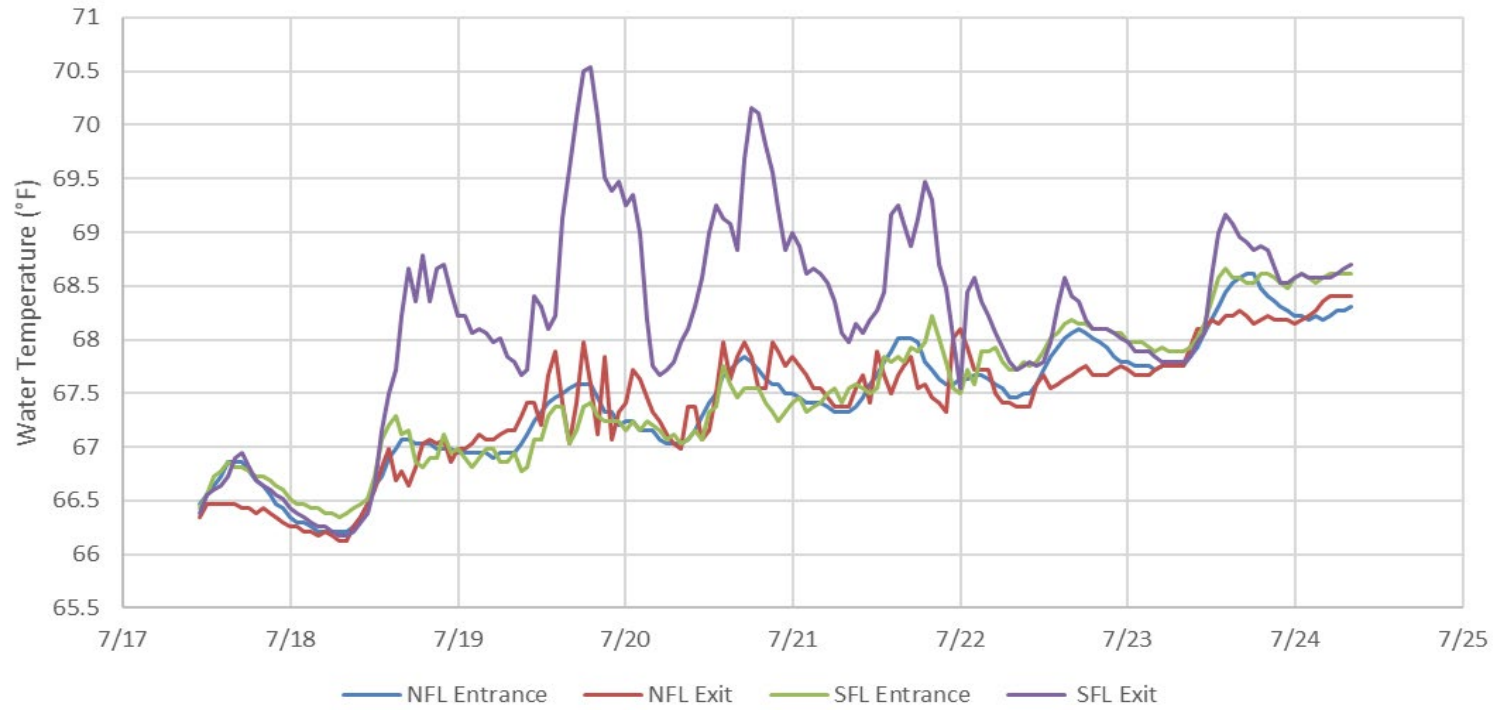
Research:

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)
7/19/2022	Unit 4	2.72	68,0,68	161.9
7/19/2022	Unit 12	2.85	68,0,68	161.9
7/21/2022	Unit 4	2.51	68,0,68	161.5
7/21/2022	Unit 12	2.58	68,0,68	161.5
7/23/2022	Unit 4	2.58	68,0,68	162.0
7/23/2022	Unit 12	2.65	68,0,68	162.0

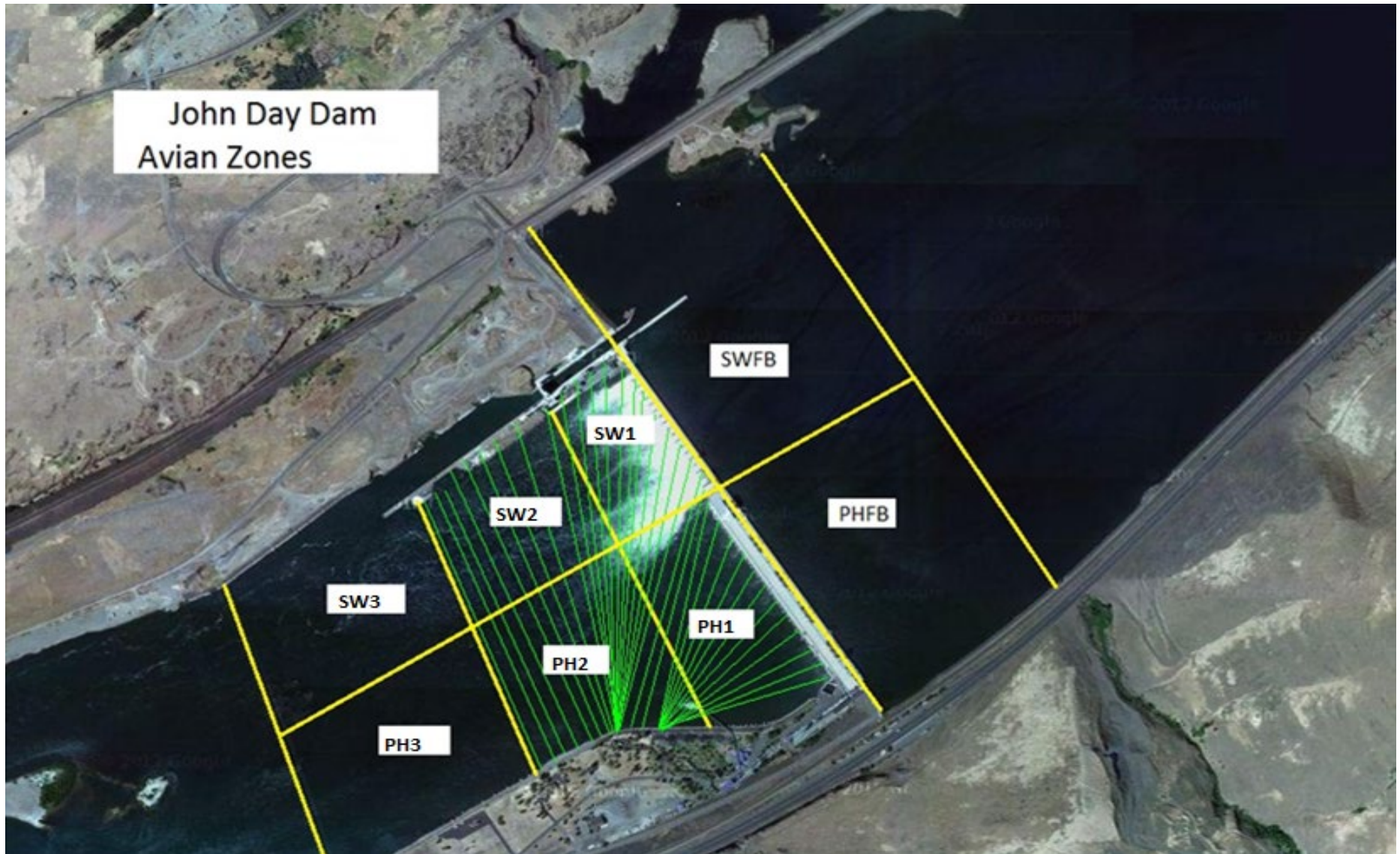
Average Weekly Velocity (ft/sec)	2.65
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JOHN DAY WEEKLY AVERAGES

	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	9.0	1.5	9.7	9.7	1.9	1.4	4.6	77.1	34.5	19
Sunday	9.4	1.6	9.7	9.8	1.9	1.5	4.6	97.9	34.5	19
Monday	8.2	1.6	8.7	8.6	1.9	1.6	4.6	74.3	35.9	19
Monday	9.6	1.4	9.9	10.0	1.9	1.5	4.6	83.0	35.1	19
Tuesday	8.9	1.4	8.7	8.7	2.0	1.5	4.5	67.3	34.8	19
Tuesday	9.7	1.5	9.2	9.3	2.0	1.4	4.3	82.2	34.7	19
Wednesday	9.2	1.6	9.0	9.0	1.8	1.5	4.5	67.1	35.4	19
Wednesday	10.1	1.4	10.0	10.1	1.4	1.2	4.5	87.1	35.7	19
Thursday	8.7	1.6	8.8	8.9	1.9	1.4	4.5	67.1	34.9	19
Thursday	9.2	1.5	9.3	9.4	1.6	1.3	4.5	74.4	35.0	19
Friday	9.1	1.5	9.4	9.3	1.5	1.4	4.8	77.4	35.8	19
Friday	9.7	1.2	9.8	9.9	1.7	1.5	4.7	77.3	35.8	19
Saturday	8.9	1.6	8.6	8.6	1.8	1.5	4.6	70.0	35.2	19
Saturday	9.7	1.3	9.1	9.1	1.8	1.4	4.5	69.7	35.3	19
AVG:	9.2	1.5	9.3	9.3	1.8	1.4	4.6	76.6	35.2	19.0

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	66.1	6.0	N/A	225
Monday	66.1	6.0	43	265
Tuesday	66.7	5.5	N/A	88
Wednesday	66.9	5.0	109	160
Thursday	67.3	5.0	N/A	205
Friday	67.3	5.0	86	437
Saturday	67.5	6.0	N/A	423
AVG	66.8	5.5	79	258

John Day Dam
Avian Zones



JDA Bird Counts: 7/17/22 to 7/23/22

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

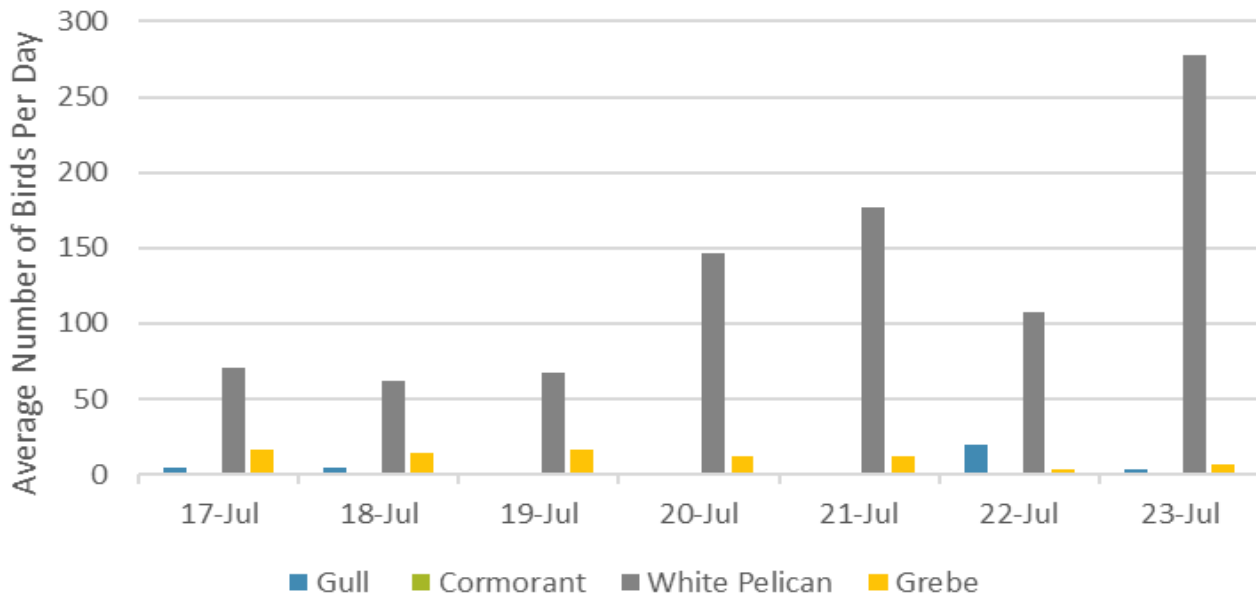
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
17-Jul	PHFB	0	0	9	20	0	0	0	0	0	0	0	0	4	2	0	0	17	16	0	0	68
17-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jul	PH1	4	5	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	14
17-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	13	8	0	0	0	0	0	0	21
17-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	67	12	0	0	0	0	0	0	79
17-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
17-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	25	1	0	0	0	0	0	0	26
Total/Survey		5		15		0		0		0		0		71		0		17		0		107
18-Jul	PHFB	0	0	27	10	0	0	0	0	0	0	0	0	2	0	0	0	17	12	0	0	68
18-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jul	PH1	7	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	11
18-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	9
18-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	47
18-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	0	19
18-Jul	SW3	0	1	0	0	0	0	0	0	0	0	0	0	38	5	0	0	0	0	0	0	44
Total/Survey		4		19		0		0		0		0		62		0		15		0		99
19-Jul	PHFB	0	0	8	24	0	0	0	0	0	0	0	0	3	0	0	0	14	18	0	0	67
19-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	11	2	0	0	0	0	0	0	13
19-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	6	17	0	0	0	0	0	0	23
19-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
19-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	44	2	51	0	0	0	0	0	97
19-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	38	10	0	0	0	0	0	0	48
Total/Survey		0		16		0		0		0		0		68		26		16		0		125
20-Jul	PHFB	0	0	45	15	0	0	0	0	0	0	0	0	5	8	0	0	10	15	0	0	98
20-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
20-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
20-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	50	20	0	0	0	0	0	0	70
20-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	100	10	0	0	0	0	0	0	110
Total/Survey		0		30		0		0		0		0		147		0		13		0		189

JDA Bird Counts: 7/21/22 to 7/23/22

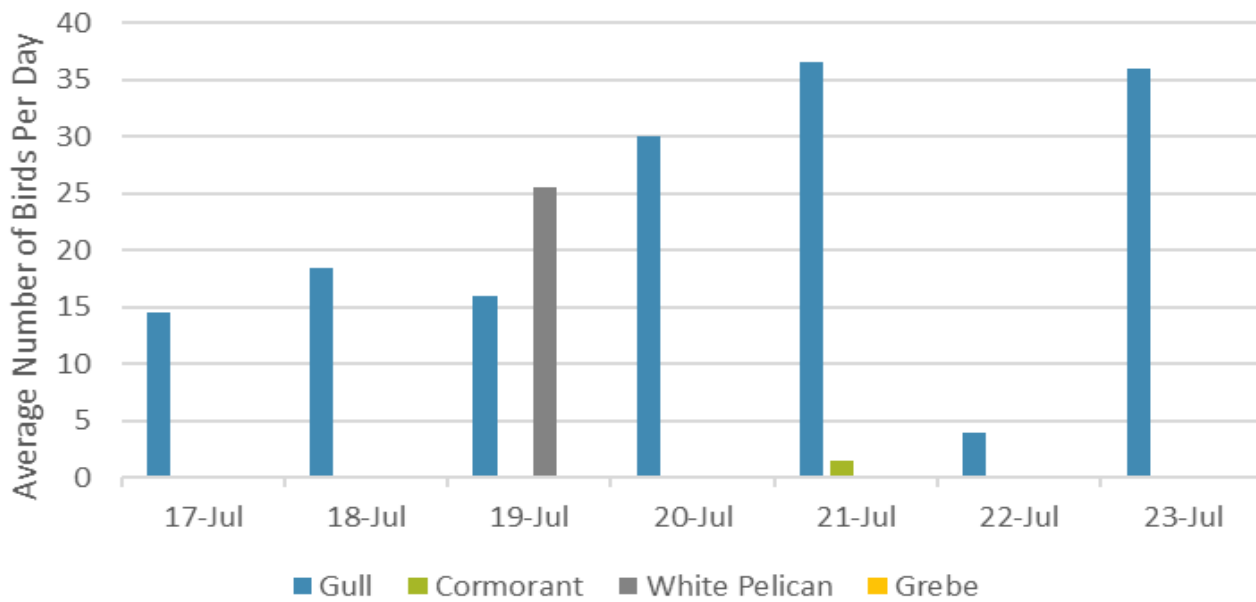
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Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
21-Jul	PHFB	0	0	28	20	0	0	3	0	0	0	0	0	10	2	0	0	12	12	0	0	87
21-Jul	SWFB	0	0	10	15	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	30
21-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	14
21-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	0	0	0	53
21-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	43	10	0	0	0	0	0	0	53
21-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	141	75	0	0	0	0	0	0	216
Total/Survey		0	0	37	20	0	0	2	0	0	0	0	0	177	0	0	0	12	0	0	0	227
22-Jul	PHFB	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	15
22-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Jul	PH1	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
22-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	10	32	0	0	0	0	0	0	42
22-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19
22-Jul	SW1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
22-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	11	31	0	0	0	0	0	0	42
22-Jul	SW3	11	1	0	0	0	0	0	0	0	0	0	0	53	60	0	0	0	0	0	0	125
Total/Survey		20	16	4	0	0	0	0	0	0	0	0	0	108	0	0	0	4	0	0	0	135
23-Jul	PHFB	0	0	43	29	0	0	0	0	0	0	0	0	23	11	0	0	8	6	0	0	120
23-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Jul	PH1	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	10
23-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	15	63	0	0	0	0	0	0	78
23-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	33	90	0	0	0	0	0	0	123
23-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	82	0	0	0	0	0	0	89
23-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	121	107	0	0	0	0	0	0	228
Total/Survey		4	7	36	29	0	0	0	0	0	0	0	0	278	0	0	0	7	0	0	0	324
Totals		Gulls		Cormorant		Caspian tern		White Pelican		Grebe		Total										
		F	NF	F	NF	F	NF	F	NF	F	NF	F	NF									
Weekly Total		63	311	0	3	0	0	1818	51	164	0	1205										
Avg/Survey		5	22	0	0	0	0	130	4	12	0	172										

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds





A white sturgeon salvaged from MU6 draft tube, approximately 6ft in length.