

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/28/2022

Inspection Period: 5/22/2022 thru 5/28/2022



**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: 54.5 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.)	1.6			
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.)	1.5			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	9.5			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.92			
N. Entrance PH(Bay 19)differential	1	1.0' - 2.0'	AVG (Ft.)	1.7			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	10.4			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	10.2			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.5			
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)	200.4	Avg %	72.0	
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.

Project Operations:

Current outages: MU3, MU4, MU7, MU 10, and MU15.

Spring spill started April 10 along with the Caspian tern forebaby operation for the Blalock islands.

USDA avian hazing started 16 April.

Tailwater average weekly TDG: 123

Maintenance:

South fish turbine #2 was forced out of service on 30 March with an excessive vibration issue. Pumps 1 & 3 are running.

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 decreasing slightly, mainly in PHFB. (see 'Bird Count' tab for details).

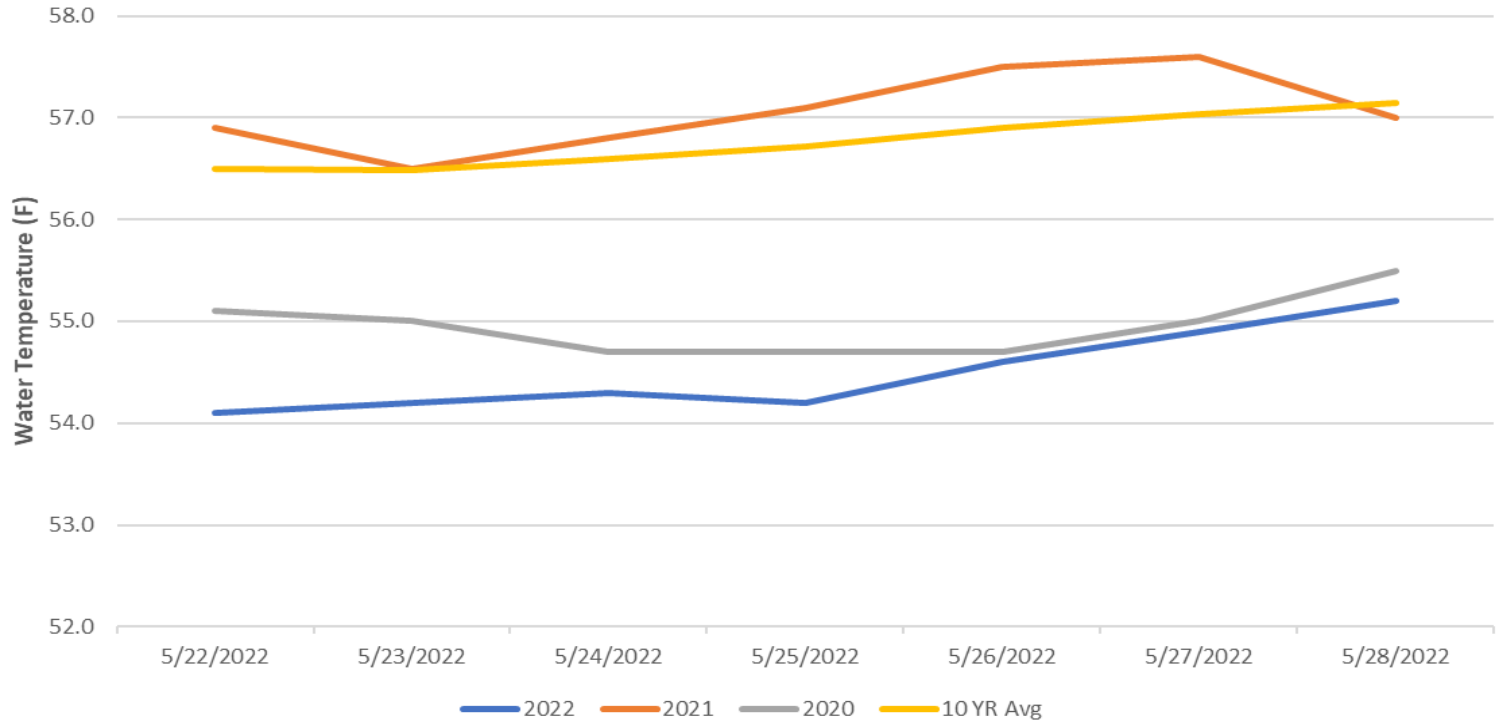
2 of 125 avian lines down.

Pelicans on Preacher's Island: averaged 32 per day

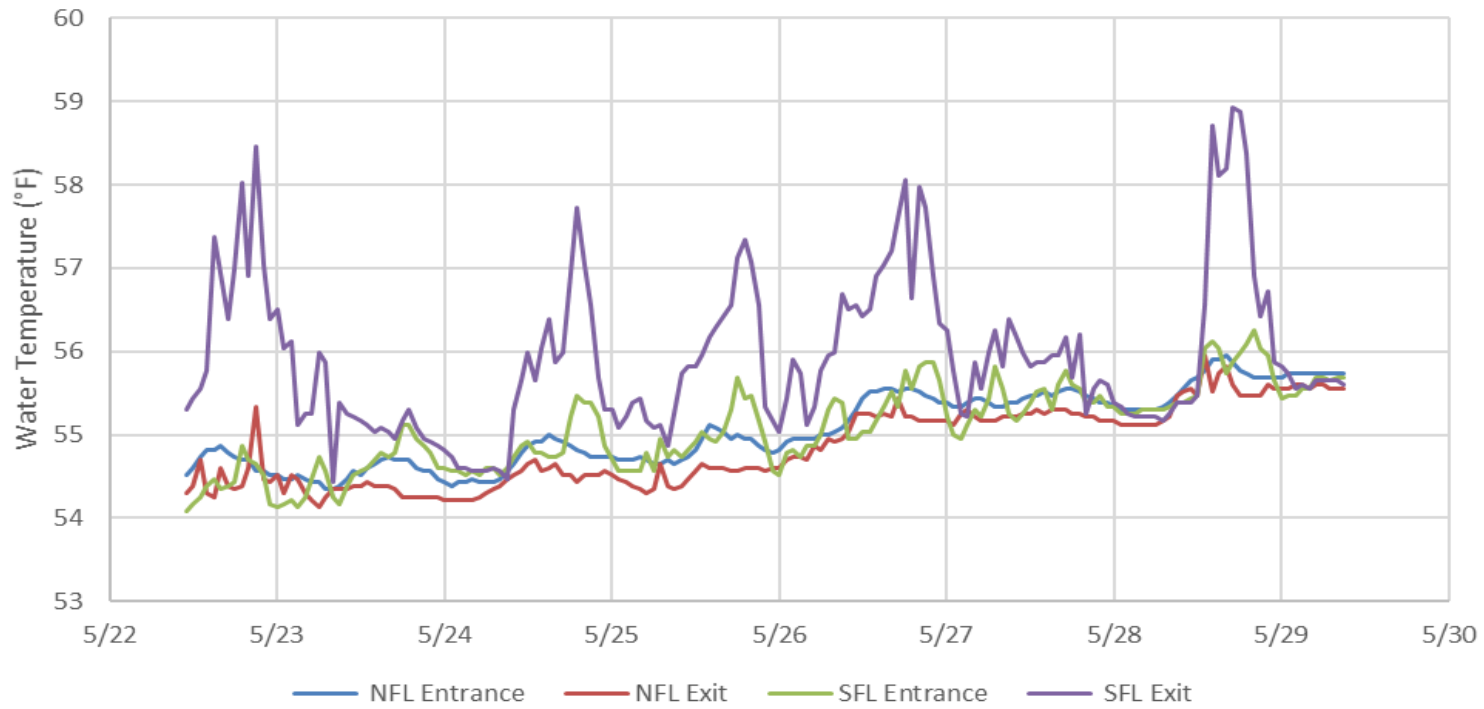
Research:

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)
5/23/2022	Unit 4	2.85	68,0,68	161.1
5/23/2022	Unit 12	2.90	68,0,68	161.1
5/25/2022	Unit 4	2.78	68,0,68	161.0
5/25/2022	Unit 12	2.82	68,0,68	161.0
5/28/2022	Unit 4	2.98	68,0,68	162.2
5/28/2022	Unit 12	3.22	68,0,68	162.2

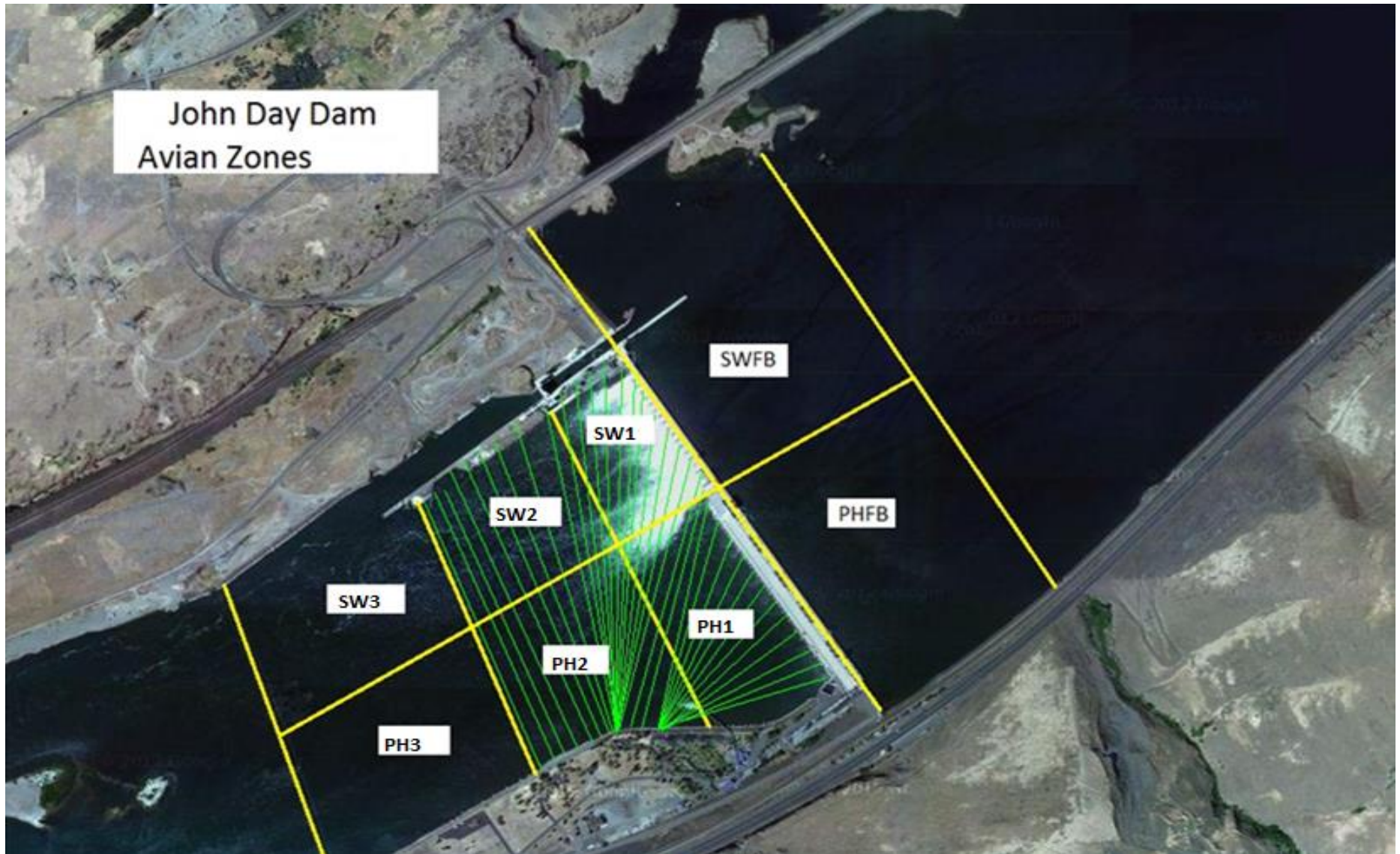
Average Weekly Velocity (ft/sec)	2.92
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JOHN DAY WEEKLY AVERAGES

	NE1 (Ft)	NE2 (Ft)	S.Ent (Ft)	SE1 (Ft)	N.Ent (Ft)	JBS Diff (Ft)	Bay19 (Ft)	Spill Vol. (kcfs)	Spill %	# Spillbays
Sunday	12.1	11.9	1.4	11.6	1.4	4.6	2.3	88.1	32.5	19
Sunday	9.7	9.6	1.6	8.7	1.4	4.5	1.7	222.0	75.2	19
Monday	10.1	9.8	1.4	9.6	1.5	4.2	1.9	199.6	79.2	19
Monday	9.5	9.6	1.6	9.0	1.6	4.6	1.9	200.2	79.1	19
Tuesday	11.4	11.1	1.3	10.3	1.5	4.6	1.3	208.3	78.4	19
Tuesday	9.8	9.5	1.4	9.1	1.3	4.5	1.6			
Wednesday	11.6	11.3	1.1	11.0	1.5	4.2	1.6	86.1	32.0	19
Wednesday	10.4	10.3	1.4	9.8	1.5	4.7	1.5	227.0	77.8	19
Thursday	9.9	9.6	1.5	9.0	1.6	4.2	1.7	227.1	80.8	19
Thursday	9.1	8.8	1.7	8.3	1.5	4.6	1.5	226.8	81.1	19
Friday	10.7	10.4	1.6	9.4	1.8	4.5	1.5	229.9	82.0	19
Friday	10.1	9.8	1.4	8.9	1.7	4.6	1.5	230.0	81.0	19
Saturday	10.1	9.8	1.5	9.0	1.9	4.6	1.9	230.0	81.7	19
Saturday	10.9	10.7	1.4	9.9	1.5	4.2	1.4	230.1	74.6	19
AVG:	10.4	10.2	1.5	9.5	1.6	4.5	1.7	200.4	72.0	19.0

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	54.1	4.5	N/A	20
Monday	54.2	4.5	2	41
Tuesday	54.3	4.0	7	24
Wednesday	54.2	3.5	3	25
Thursday	54.6	3.5	0	30
Friday	54.9	4.0	4	61
Saturday	55.2	4.0	N/A	22
AVG	54.5	4.0	3	32

John Day Dam
Avian Zones



JDA Bird Counts: 5/22/22 to 5/28/22

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

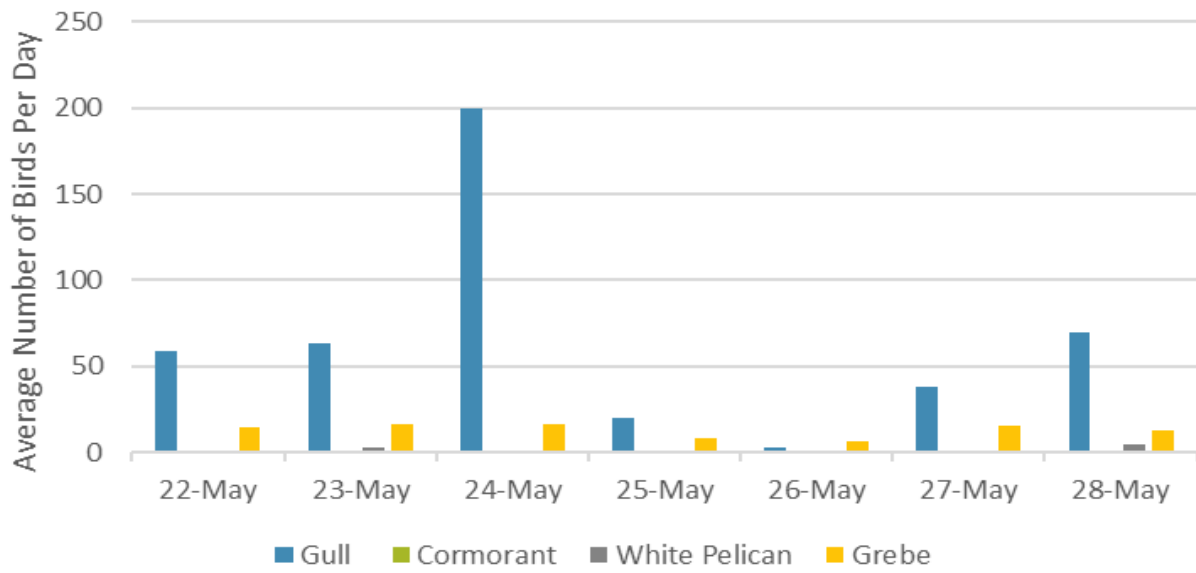
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
22-May	PHFB	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	22	7	0	0	53
22-May	SWFB	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
22-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	PH3	4	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	8
22-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-May	SW2	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
22-May	SW3	51	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
Total/Survey		59		27		0		0		0		0		2		0		15		0		102
23-May	PHFB	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16	0	0	34
23-May	SWFB	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
23-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	PH3	8	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
23-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-May	SW2	21	16	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	39
23-May	SW3	33	42	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	79
Total/Survey		64		5		0		0		0		0		3		0		16		0		88
24-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	15	0	0	33
24-May	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	PH2	11	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
24-May	PH3	72	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154
24-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-May	SW2	19	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
24-May	SW3	68	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173
Total/Survey		200		0		0		0		0		0		0		0		17		0		217
25-May	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	17
25-May	SWFB	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
25-May	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May	PH3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
25-May	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-May	SW3	32	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
Total/Survey		20		8		0		0		0		0		0		0		9		0		36

JDA Bird Counts: 5/26/22 to 5/28/22

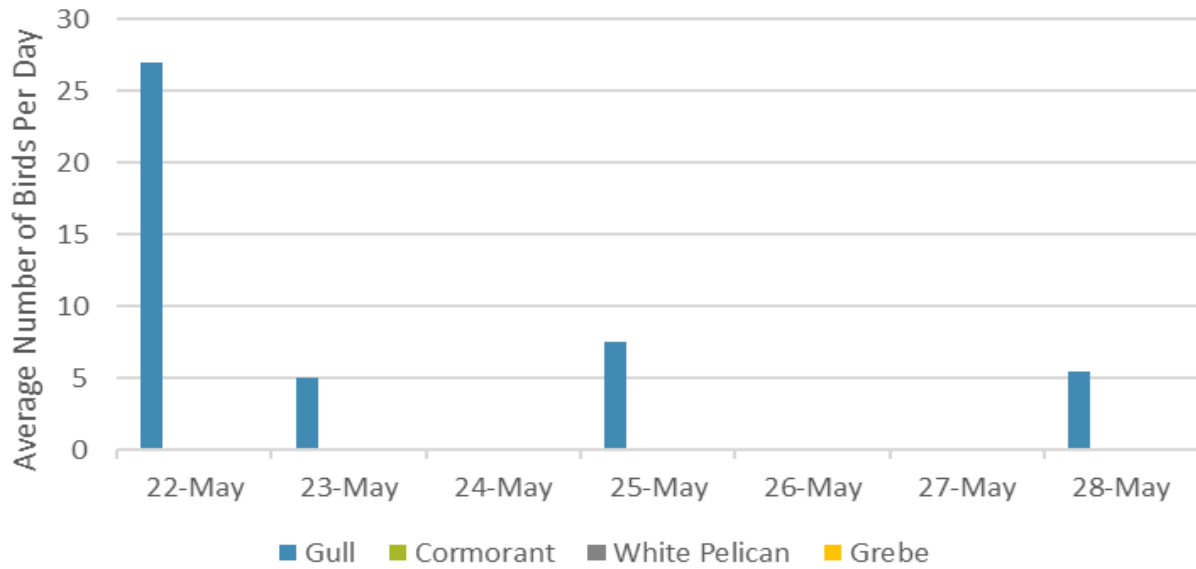
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Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
26-May PHFB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	13
26-May SWFB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May PH1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May PH2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May PH3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May SW1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May SW2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-May SW3		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total/Survey		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	9	
27-May PHFB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	16	0	0	0	31
27-May SWFB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May PH1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May PH2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May PH3		0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
27-May SW1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-May SW2		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
27-May SW3		41	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72
Total/Survey		38	0	0	0	0	0	0	0	0	0	0	1	0	0	16	0	0	0	0	54	
28-May PHFB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25
28-May SWFB		0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
28-May PH1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-May PH2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-May PH3		0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
28-May SW1		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-May SW2		9	17	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	32
28-May SW3		63	47	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	113
Total/Survey		70	6	0	0	0	0	0	0	0	0	0	5	0	0	13	0	0	0	0	92	
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	905	90	0	0	0	0	0	0	0	19	0	180	0	0	0							
Avg/Survey	65	6	0	0	0	0	0	0	0	1	0	13	0	0								

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds





JDF participated in a CAP flight on 5/24 to monitor avian colonies in the Columbia River.