

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 3/23/2024

Inspection Period: 3/17/2024 thru 3/23/2024



**US Army Corps
of Engineers**
Portland District

JD/WC Project-Fisheries
P.O. Box 823
Rufus, Oregon 97050
Phone: 541-739-1061

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:	44.5 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	0	1.0' - 2.0'	AVG (Ft.)	1.2			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.4			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.07			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.5			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	8.8			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	8.8			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0						
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	9.8	Avg (%)	7.2	
Spill pattern	0	per FPP					
Turbine Unit Priority	0	per FPP					
Turbine 1% Efficiency	0	per FPP					

Fisheries Related Operations

Smolt Monitoring Operations:

The JBS watered up on 3/18/24, SMF waterd up on 03/19/24 with SMF monitoring to begin on 4/1/24

Adult Ladder Operations:

NFL is operating in criteria.

SFL RTS 2/29/24.

SFL turbine #3 RTS 02/29/24, FOG's removed. Operating 2 SFL Turbines @ reduced RPMS (SFP-1: 55 RPM & SFP-3: 60 RPM).

Project Operations:

TSW spill through Bay-19 began on March 21st, STS are being installed for fish passage season.

Current outages: MU3 (ETR:5/9/24), MU4 (ETR:4/11/24), MU7 (ETR: 07/31/28), MU8 (ETR: 03/26/24), MU13 (ETR: 11/14/24) .

Spillbay Outages: #1-missing brake/motor (ETR Unknown), #6 and #10-operates in manual/local mode only (ETR: Unknown).

Weekly Average Tailwater TDG: 102.7

Maintenance:

NFL AWS pump #4 is OOS with an unkown RTS date (see 21JDA02). NFL AWS pump #2 has a failed RTD sensor that keeps it from reading an accurate temperature on the lower bearing (occured 4/22/23). Therefore, there is no overheat fail safe and it is being run as a last on first off pump (the pump will need to be unstacked to repair the sensor). The repair date is unknown.

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Very low foraging gull numbers (~1/inspection), very low foraging grebes (~2/inspection) , and very low foraging cormorant numbers (~1/inspection).

There are ≤6 pelicans hanging around Preacher's Island and occasionally feeding in Powerhouse Zone 2 and 3.

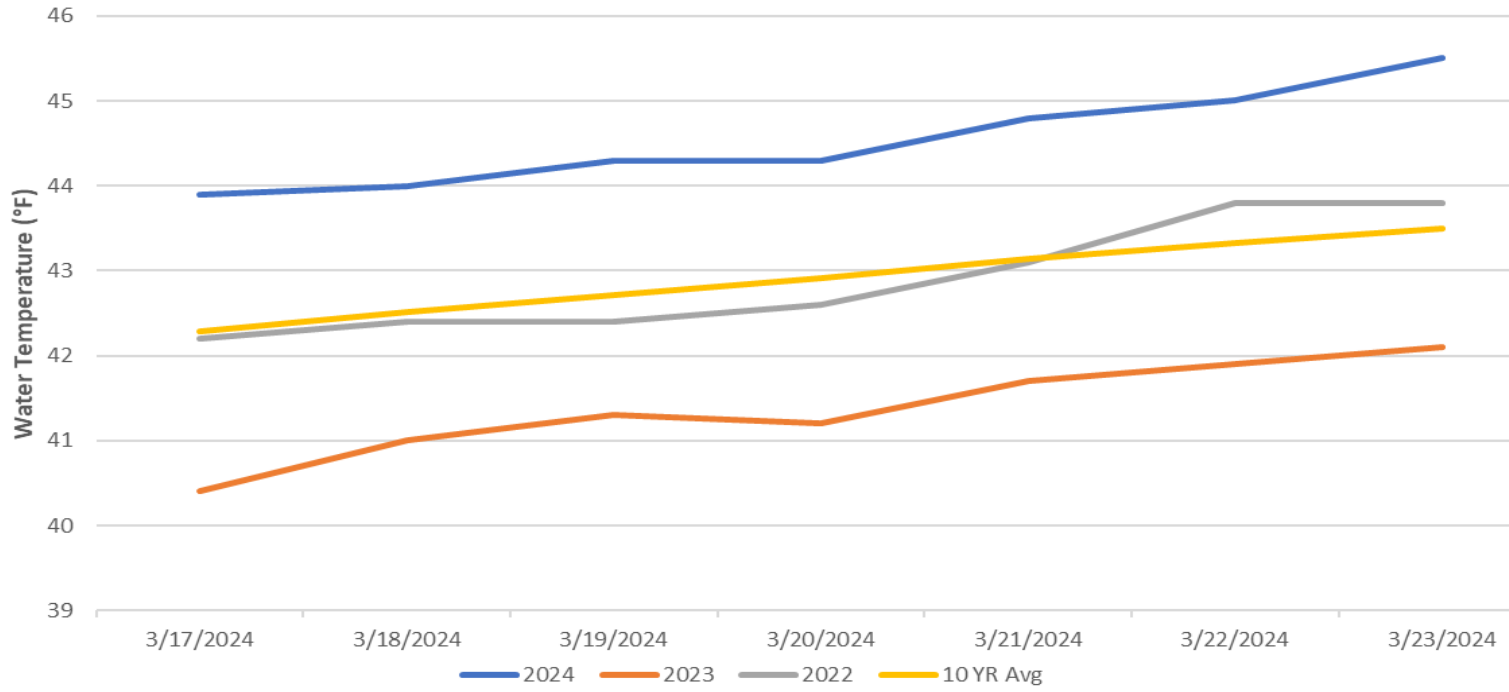
4 of 125 avian lines are down. USDA replaced the 17 lines from the powerhouse on 3/13/24 & 3/14/24.

Research:

Four Peaks started ladder counts on 3/1/23 and are performing year-round counts for the 2023 season (Day video 11/1/23 - 3/31/24).

Research preparation/paperwork for FY'24 is ongoing. PNNL Started installation of Lamprey monitoring research project on spillway.

John Day Water 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)
3/20/2024	Unit 4	1.90	55,0,55	159.9
3/20/2024	Unit 12	1.95	55,0,55	159.9
3/21/2024	Unit 4	2.05	55,0,55	159.5
3/21/2024	Unit 12	2.07	55,0,55	159.5
3/23/2024	Unit 4	2.27	55,0,60	160.3
3/23/2024	Unit 12	2.18	55,0,60	160.3

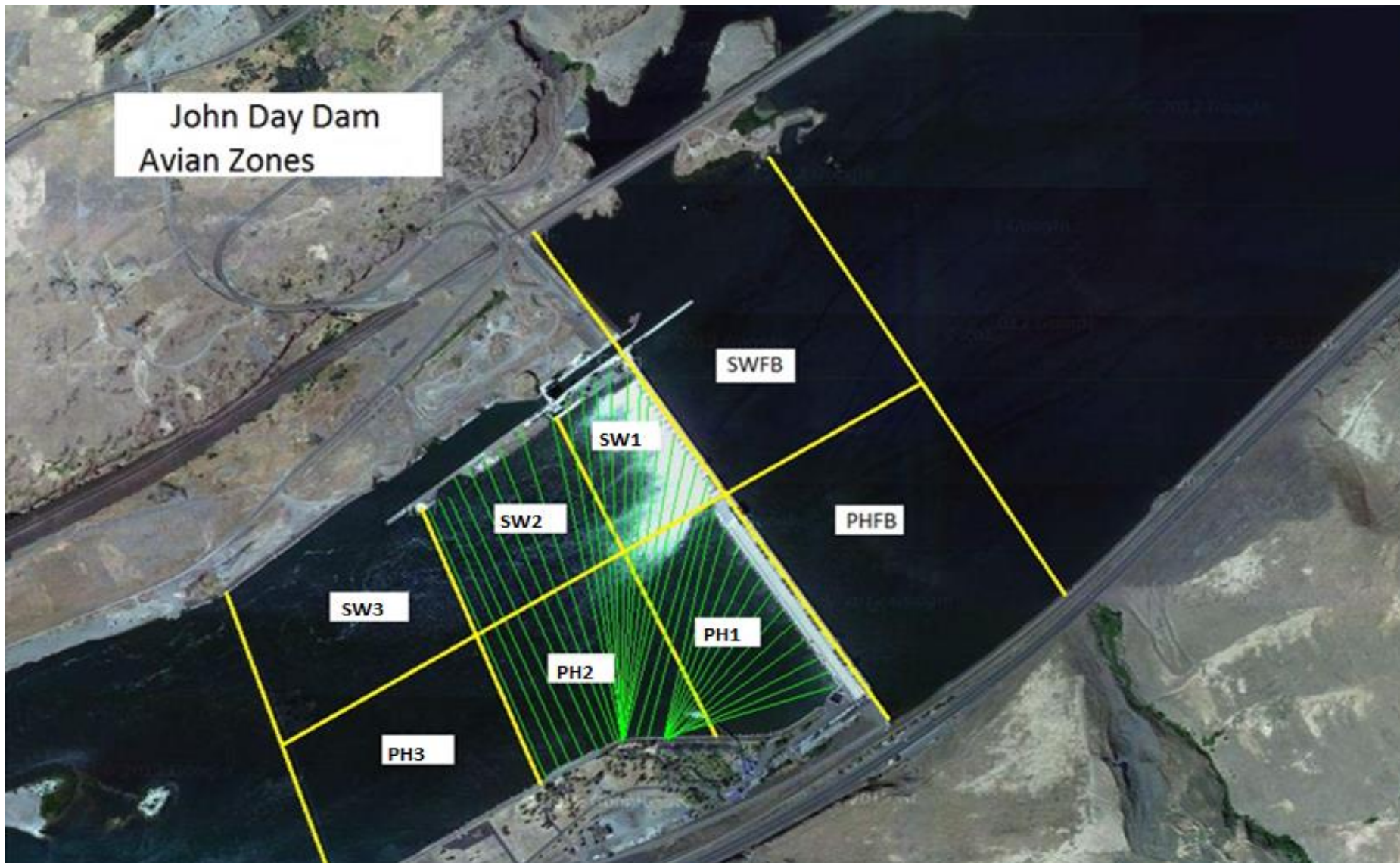
Average Weekly Velocity (ft/sec)	2.07
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JOHN DAY WEEKLY AVERAGES

	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	1.5	8.9	8.9	1.5	1.5	OOS	0.0	0.0	0
Sunday	8.7	1.3	8.7	8.7	1.5	1.6	OOS	0.0	0.0	0
Monday	8.4	1.3	8.5	8.5	1.4	1.1	OOS	0.0	0.0	0
Monday	8.1	1.3	8.2	8.2	1.6	1.7	4.8	0.0	0.0	0
Tuesday	9.2	1.0	9.1	9.1	1.3	1.4	4.6	0.0	0.0	0
Tuesday	8.9	1.0	8.8	8.8	1.3	1.5	4.6	0.0	0.0	0
Wednesday	8.2	1.3	9.2	9.2	1.5	1.5	4.7	0.0	0.0	0
Wednesday	8.0	1.2	8.6	8.6	1.2	1.6	4.4	0.0	0.0	0
Thursday	8.5	1.1	9.3	9.3	1.5	1.5	4.7	9.8	7.1	1
Thursday	8.2	1.2	8.4	8.4	1.3	1.7	4.5	9.8	8.8	1
Friday	8.0	1.1	9.1	9.1	1.5	1.5	4.6	9.8	6.1	1
Friday	8.1	1.1	8.6	8.6	1.5	1.6	4.6	9.8	6.8	1
Saturday	8.6	1.3	9.0	9.1	1.7	1.5	4.7	9.8	6.4	1
Saturday	8.2	1.4	8.6	8.6	1.6	1.6	4.6	9.9	7.7	1
AVG:	8.4	1.2	8.8	8.8	1.5	1.5	4.6	9.8	7.2	1.0

	Temp (F)	Secchi (Ft)	Notes
Sunday	43.9	6.0	
Monday	44.0	6.0	
Tuesday	44.3	6.0	
Wednesday	44.3	6.0	
Thursday	44.8	6.0	
Friday	45.0	6.0	
Saturday	45.5	6.0	
AVG	44.5	6.0	

John Day Dam
Avian Zones



JDA Bird Counts: 3/17/24 to 3/23/24

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-Mar	PHFB	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6
17-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-Mar	SW2	0	0	0	0	0	0	12	32	0	0	0	0	0	0	0	0	0	0	0	0	44
17-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		0		25		0		0		0		0		0		0		25
18-Mar	PHFB	0	0	0	0	0	0	7	3	0	0	0	0	0	0	0	0	0	0	0	0	10
18-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Mar	SW2	0	0	0	0	0	0	13	40	0	0	0	0	0	0	0	0	0	0	0	0	53
18-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		0		32		0		0		0		0		0		0		32
19-Mar	PHFB	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
19-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-Mar	SW1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
19-Mar	SW2	0	0	0	0	1	0	20	25	0	0	0	0	0	0	0	0	0	0	0	0	46
19-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		2		24		0		0		0		0		0		0		26
20-Mar	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4
20-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-Mar	SW2	0	0	0	0	0	0	20	25	0	0	0	0	0	0	0	0	0	0	0	0	45
20-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0		0		0		23		0		0		0		0		2		0		25

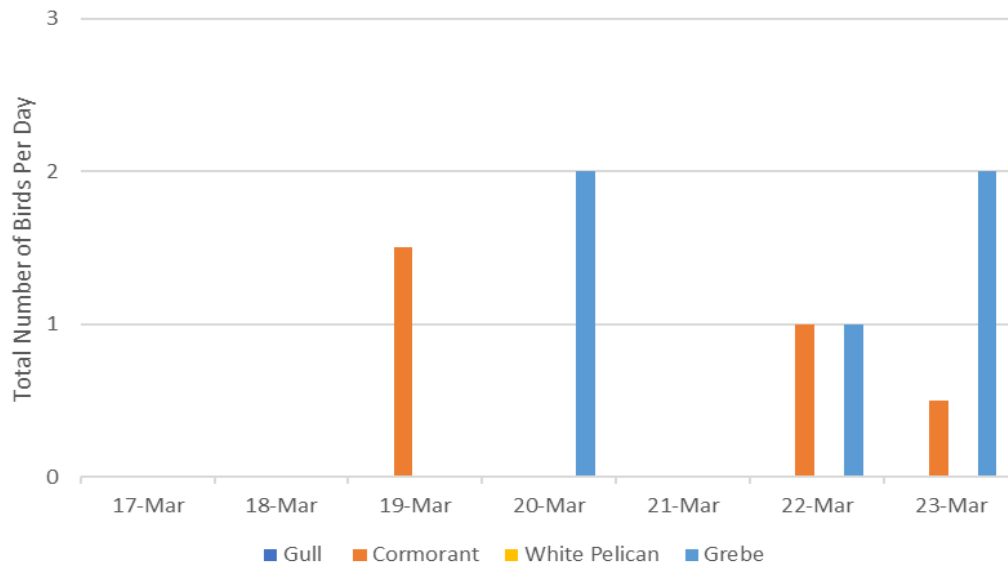
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Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
21-Mar	PHFB	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14
21-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-Mar	SW2	0	0	0	0	0	0	12	9	0	0	0	0	0	0	0	0	0	0	0	0	21
21-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	18
22-Mar	PHFB	0	0	0	0	1	1	4	8	0	0	0	0	0	0	0	0	0	2	0	0	16
22-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-Mar	SW2	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	3
22-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	1	0	8	0	0	0	0	0	0	0	0	0	1	0	0	0	10
23-Mar	PHFB	0	0	0	0	0	1	6	12	0	0	0	0	0	0	0	0	2	2	0	0	23
23-Mar	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-Mar	SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Avg/Survey		0	0	0	0	1	0	9	0	0	0	0	0	0	0	0	0	2	0	0	0	12

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	0	0	6	274	0	0	0	0	0	0	0	0	0	10	0	290					
Avg/Survey	0	0	0	20	0	0	0	0	0	0	0	0	0	1	0	21					

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

