

FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/5/2023

Inspection Period: 7/30/2023 thru 8/5/2023



**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:	71.5 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.)	1.6			
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.)	1.4			
Entrance weir SE1	0	depth (≥ 8')	AVG (Ft.)	8.2			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.63			
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.)	9.4			
JUVENILE PASSAGE							
Forebay/bypass conduit differential	0	4.0' - 5.0'	AVG (Ft.)	4.6			
Submersible traveling screens	0	visual inspect	next inspection				
Turbine trashrack drawdown	0	<1.5', wkly					
Vert barrier screen drawdown	0	<1.2', wkly					
Spill volume	0	per FPP	Avg (kcfs)	43.9	Avg (%)	35.7	
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 2023 sampling season on April 3rd for condition monitoring only. High water temperature protocol went into effect on July 6 when water temperatures exceeded 70F. Sampling will occur on Mondays and Thursdays unless water temperature drops below 69.5, at which point sampling will resume on Monday, Wednesday, and Fridays until September 15.

Adult Ladder Operations:

NFL is operating in criteria.

SFL turbine #2 RTS 3/20 @ reduced RPMs (55 RPMs) to prolong the repairs. SFL turbine #3 OOS (Philadelphia gear inspected on 2/22 and recommended FOOS - See 23JDA03) - Funding awarded (RTS-Unknown). FOG's removed

Ladders switched to salmon mode on 7/11.

ROV Inspections performed on 8/8/23 for both ladders - nothing unusual to report

Project Operations:

Current outages: MU2 (ETR: 08/10/23), MU3 (ETR:8/10/23), MU4 (ETR: 11/2/23), MU7 (ETR: 7/31/28), MU10 (ETR: 11/15/23), MU15 (ETR: 10/19/23)

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

Weekly Average Tailwater TDG: 114.7

Maintenance:

NFL AWS pump #4 is OOS with an unknown 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).

Calibration: All gauges within the 0.3' criteria.

Bird Data:

Increase in pelican foraging within the tailrace this week (average ~218/inspection), foraging gull numbers have increased this week (~27/inspection), no foraging grebes or cormorants observed this week.

There are ~1000 pelicans hanging around Preacher's Island

19 of 125 avian lines down

Research:

Four Peaks started ladder counts on 3/1/23 and will be performing year-round counts for 2023 (Day video 11/1/23 - 2/29/24)

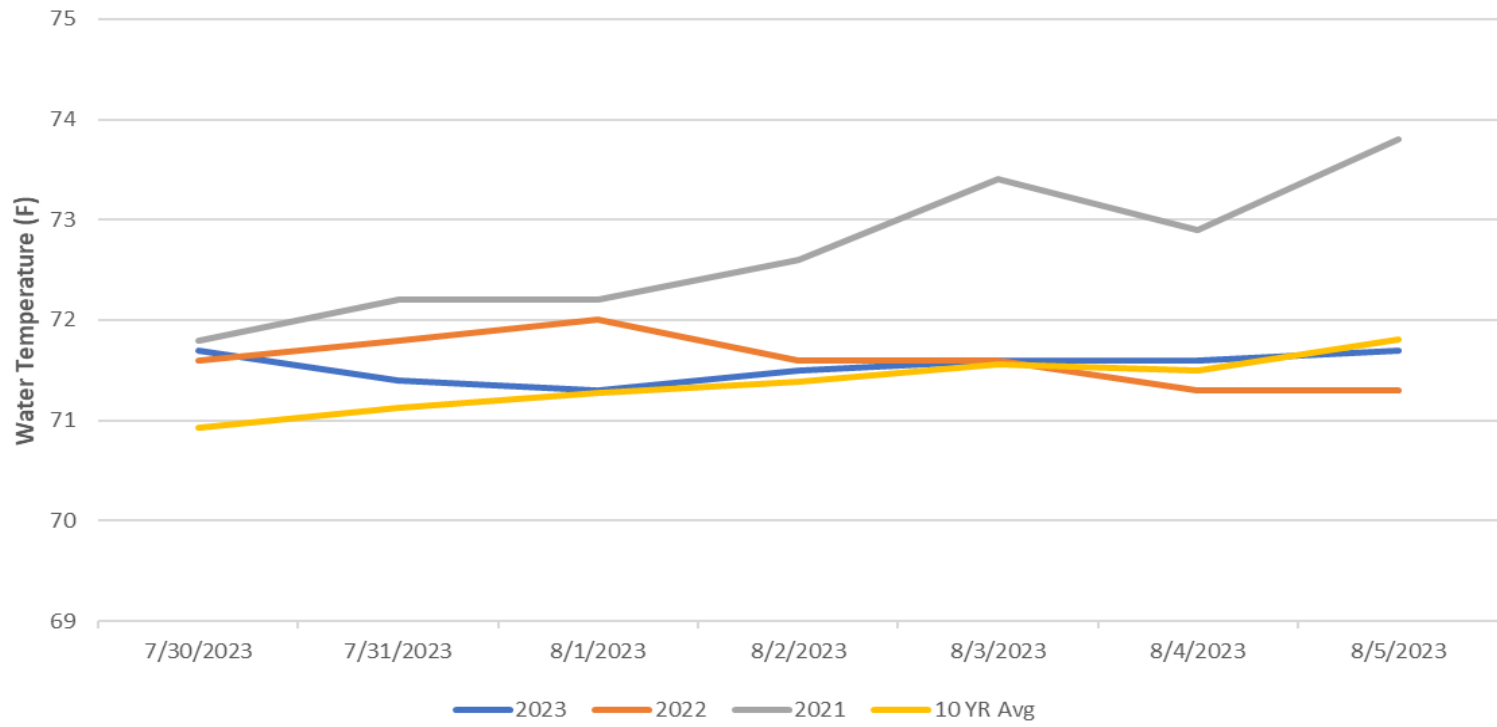
PSMFC smolt condition monitoring began 4/3/23 (currently 2-days/week)

USDA hazing ended 07/31/23

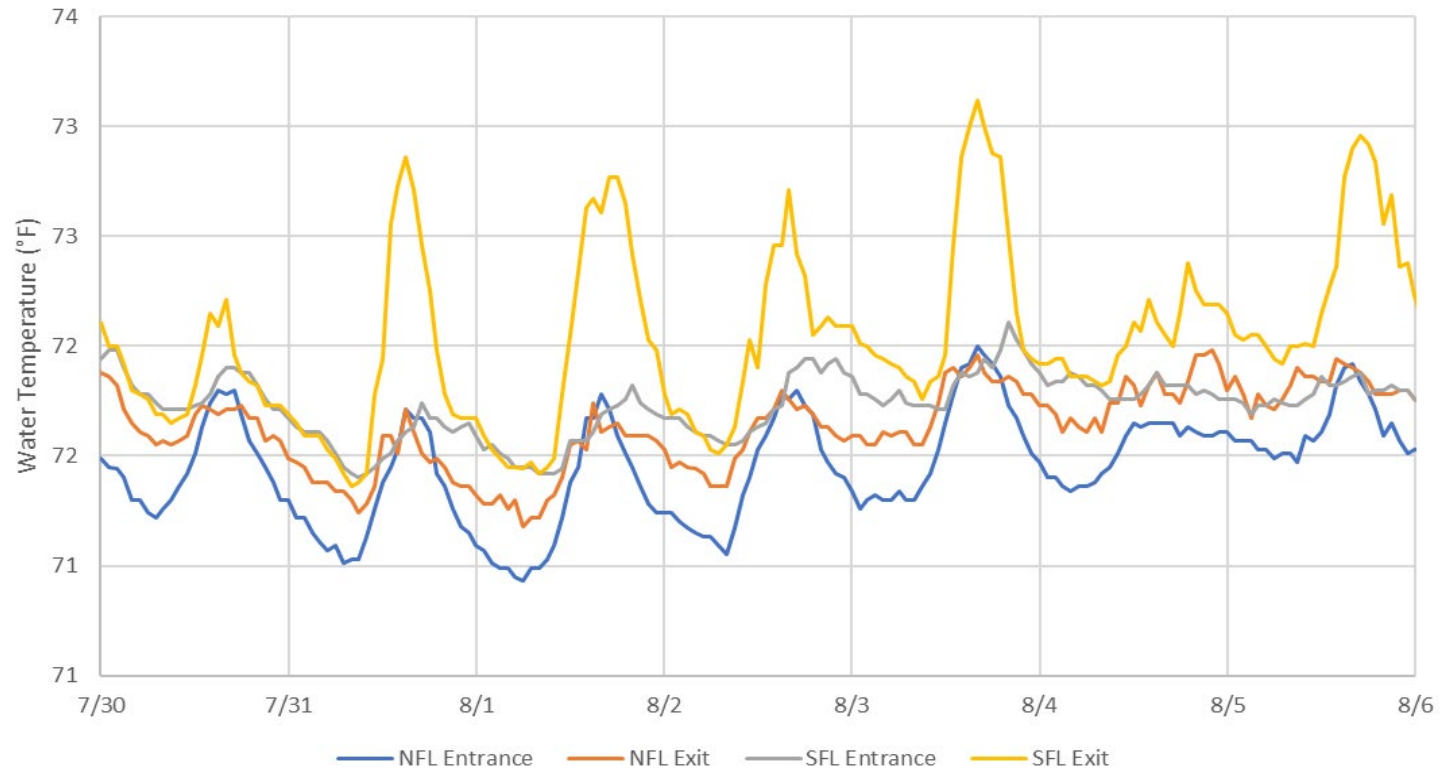
WDFW currently performing NPMP dam angling (started 5/8/23)

CRITFC translocation started on 6/12/23. NFL LPS collection ended on 6/20/23 due to safety concerns (see 23JDA24)

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)
7/31/2023	Unit 4	2.61	55,55,0	159.4
7/31/2023	Unit 12	2.59	55,55,0	159.4
8/2/2023	Unit 4	2.67	55,55,0	159.6
8/2/2023	Unit 12	2.62	55,55,0	159.6
8/5/2023	Unit 4	2.71	55,55,0	159.9
8/5/2023	Unit 12	2.60	55,55,0	159.9

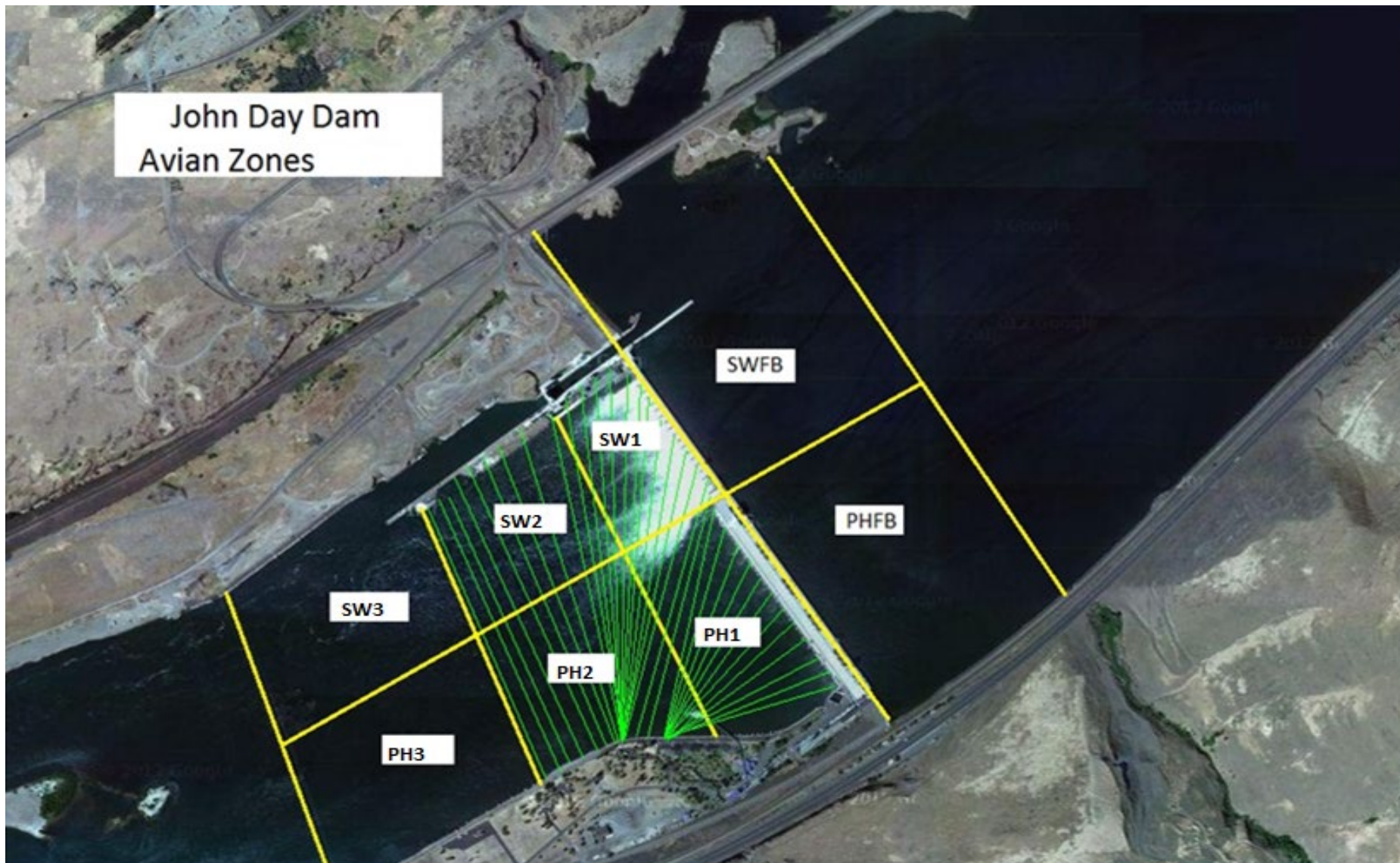
Average Weekly Velocity (ft/sec)	2.63
----------------------------------	------

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	8.2	1.4	9.7	9.5	1.8	1.6	4.6	42.0	35.8	16.0
Sunday	8.3	1.3	10.4	10.2	1.5	1.4	4.7	47.2	34.6	18.0
Monday	8.2	1.5	9.3	9.1	1.8	1.7	4.5	47.1	35.5	17.0
Monday	9.0	1.2	10.1	9.9	1.6	1.7	4.6	57.2	35.8	19.0
Tuesday	8.3	1.4	9.3	9.1	1.8	1.6	4.6	40.1	34.5	14.0
Tuesday	8.2	1.4	9.2	9.1	1.7	1.7	4.5	50.9	34.3	17.0
Wednesday	8.0	1.4	9.2	9.0	1.7	1.7	4.5	36.9	40.8	12.0
Wednesday	8.2	1.4	9.5	9.3	1.7	1.6	4.7	51.4	36.6	19.0
Thursday	8.0	1.4	9.7	9.5	1.8	1.6	4.5	37.2	35.1	12.0
Thursday	8.0	1.4	9.7	9.5	1.6	1.7	4.5	37.0	35.9	12.0
Friday	8.0	1.4	8.9	8.7	1.8	1.6	4.5	35.0	36.3	11.0
Friday	8.1	1.3	9.4	9.2	1.4	1.6	4.6	37.1	34.5	12.0
Saturday	8.2	1.2	9.8	9.6	1.7	1.6	4.6	45.9	35.0	17.0
Saturday	8.1	1.4	10.3	10.0	1.8	1.5	4.7	49.0	34.8	18.0
AVG:	8.2	1.4	9.6	9.4	1.7	1.6	4.6	43.9	35.7	15.3

	Temp (F)	Secchi (Ft)	Notes
Sunday	71.7	6.0	
Monday	71.4	6.0	
Tuesday	71.3	6.0	
Wednesday	71.5	6.0	
Thursday	71.6	6.0	
Friday	71.6	6.0	
Saturday	71.7	6.0	
AVG	71.5	6.0	

John Day Dam
Avian Zones

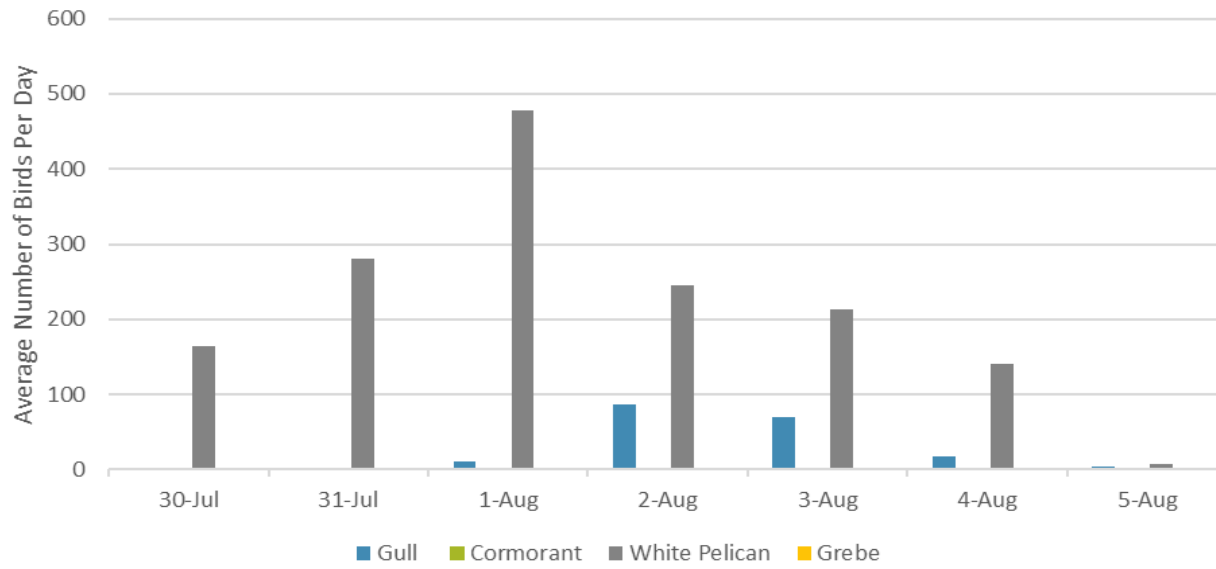


JDA Bird Counts: 7/30/23 to 8/5/23

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)	
30-Jul	PHFB	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4
30-Jul	SWFB	0	0	25	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125
30-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	76	25	0	0	0	0	0	0	101
30-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	81	30	20	50	0	0	0	0	181
30-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	83	30	20	0	0	0	0	0	133
Avg/Survey		0		63		0		0		0		0		165		45		0		0		272
31-Jul	PHFB	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
31-Jul	SWFB	0	0	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
31-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	2	13	0	0	0	0	0	0	15
31-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	50	44	0	0	0	0	0	0	94
31-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	10	56	0	0	0	0	0	0	66
31-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	90	24	0	0	0	0	0	0	114
31-Jul	SW2	0	0	0	0	0	0	0	1	0	0	0	0	97	12	50	22	0	0	0	0	182
31-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	102	60	50	17	0	0	0	0	229
Avg/Survey		1		40		0		1		0		0		280		70		0		0		391
1-Aug	PHFB	0	0	0	0	0	0	4	0	0	0	0	0	4	1	0	0	0	0	0	0	9
1-Aug	SWFB	0	0	75	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225
1-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	10	25	0	0	0	0	0	0	35
1-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	85	75	0	0	0	0	0	0	160
1-Aug	PH3	0	7	0	0	0	0	0	0	0	0	0	0	121	125	0	0	0	0	0	0	253
1-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	25	25	0	0	0	0	0	0	50
1-Aug	SW2	0	2	0	0	0	0	0	0	0	0	0	0	75	90	30	33	0	0	0	0	230
1-Aug	SW3	0	12	0	0	0	0	0	0	0	0	0	0	150	145	56	25	0	0	0	0	388
Avg/Survey		11		113		0		2		0		0		478		72		0		0		675
2-Aug	PHFB	0	0	19	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	22
2-Aug	SWFB	0	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
2-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	0	14
2-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	94	62	0	0	0	0	0	0	156
2-Aug	PH3	60	20	40	0	0	0	0	0	0	0	0	0	85	25	0	0	0	0	0	0	230
2-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	11	7	0	0	0	0	0	0	18
2-Aug	SW2	33	7	0	0	0	0	2	0	0	0	0	0	88	22	6	0	0	0	0	0	158
2-Aug	SW3	37	17	65	0	0	0	0	0	0	0	0	0	52	30	70	13	0	0	0	0	284
Avg/Survey		87		106		0		2		0		0		246		45		0		0		485

Foraging Piscivorous Birds



Non-Foraging Piscivorous Birds

