

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 7/16/2022

Inspection Period: 7/10/2022 thru 7/16/2022



**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:	65.4 F
						Secchi:	6.0 Ft.
<b>NORTH FISHWAY</b>							
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			
<b>SOUTH FISHWAY</b>							
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.)	9.6			
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.86			
N. Entrance PH(Bay 19)differential	0	1.0' - 2.0'	AVG (Ft.)	1.8			
Entrance weir NE1	0	depth (≥ 8')	AVG (Ft.)	9.8			
Entrance weir NE2	0	depth (≥ 8')	AVG (Ft.)	9.9			
<b>JUVENILE PASSAGE</b>							
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)	91.4	Avg %	34.4	
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, MU7, MU10

Summer spill started 06/16.

USDA avian hazing started 16 April.

Tailwater average weekly TDG: 116.4

### **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:**

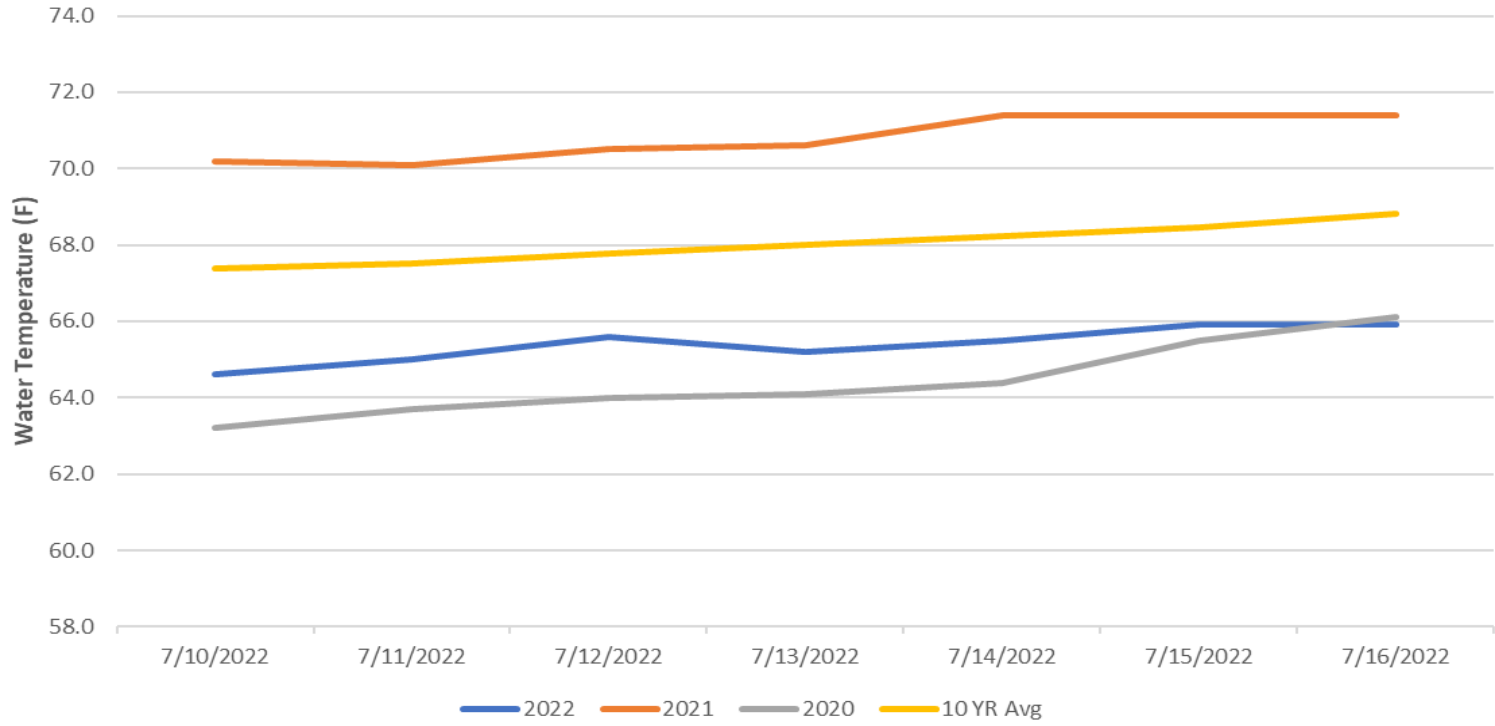
Cormorants have dispersed. Gull numbers have decreased. Grebe numbers are steady. Pelican numbers are increasing with more foraging in tailrace being observed. Pelicans on Preacher's Island: averaged 209 per day. (see 'Bird Count' tab for details).

5 of 125 avian lines down.

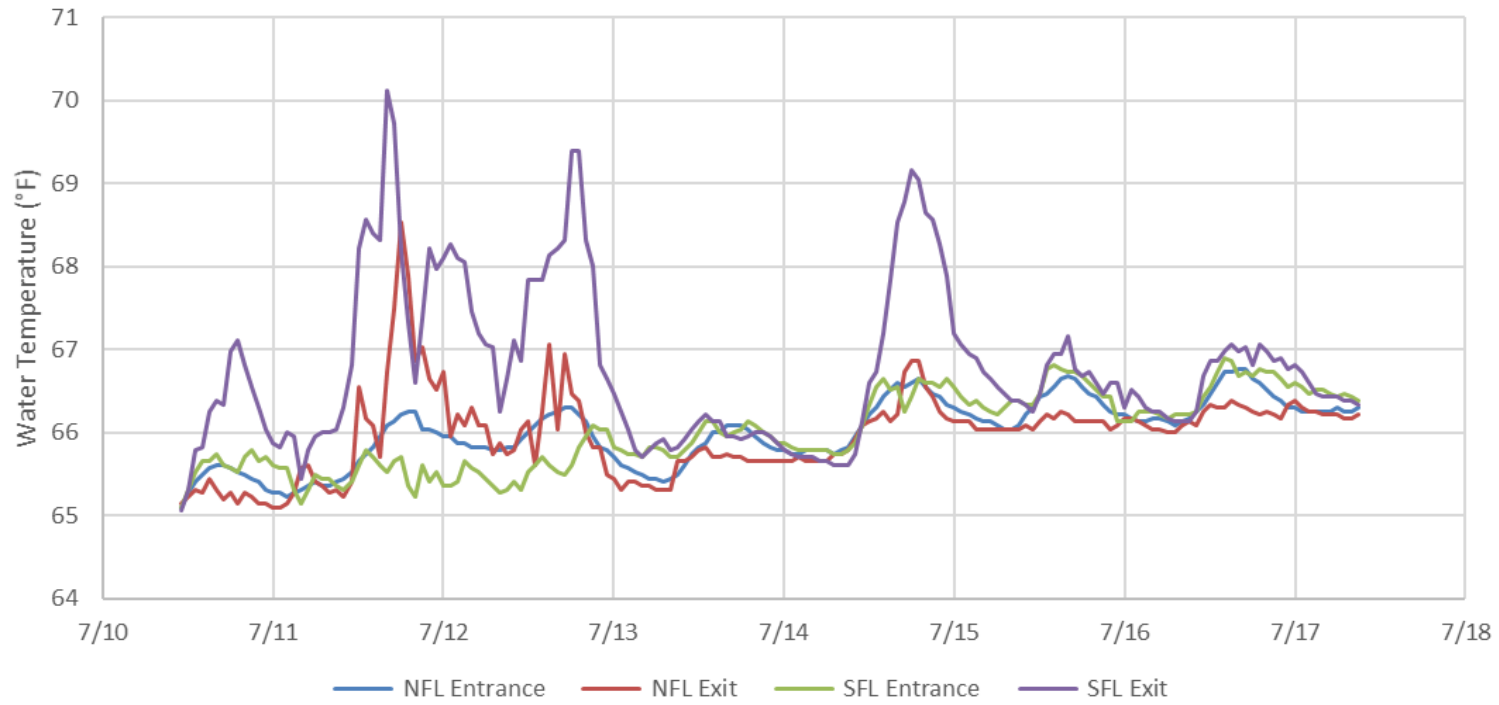
### **Research:**

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)
7/11/2022	Unit 4	2.81	68,0,68	162.1
7/11/2022	Unit 12	2.99	68,0,68	162.1
7/14/2022	Unit 4	2.76	68,0,68	162.6
7/14/2022	Unit 12	2.99	68,0,68	162.6
7/16/2022	Unit 4	2.74	68,0,68	161.9
7/16/2002	Unit 12	2.85	68,0,68	161.9

Average Weekly Velocity (ft/sec)	2.86
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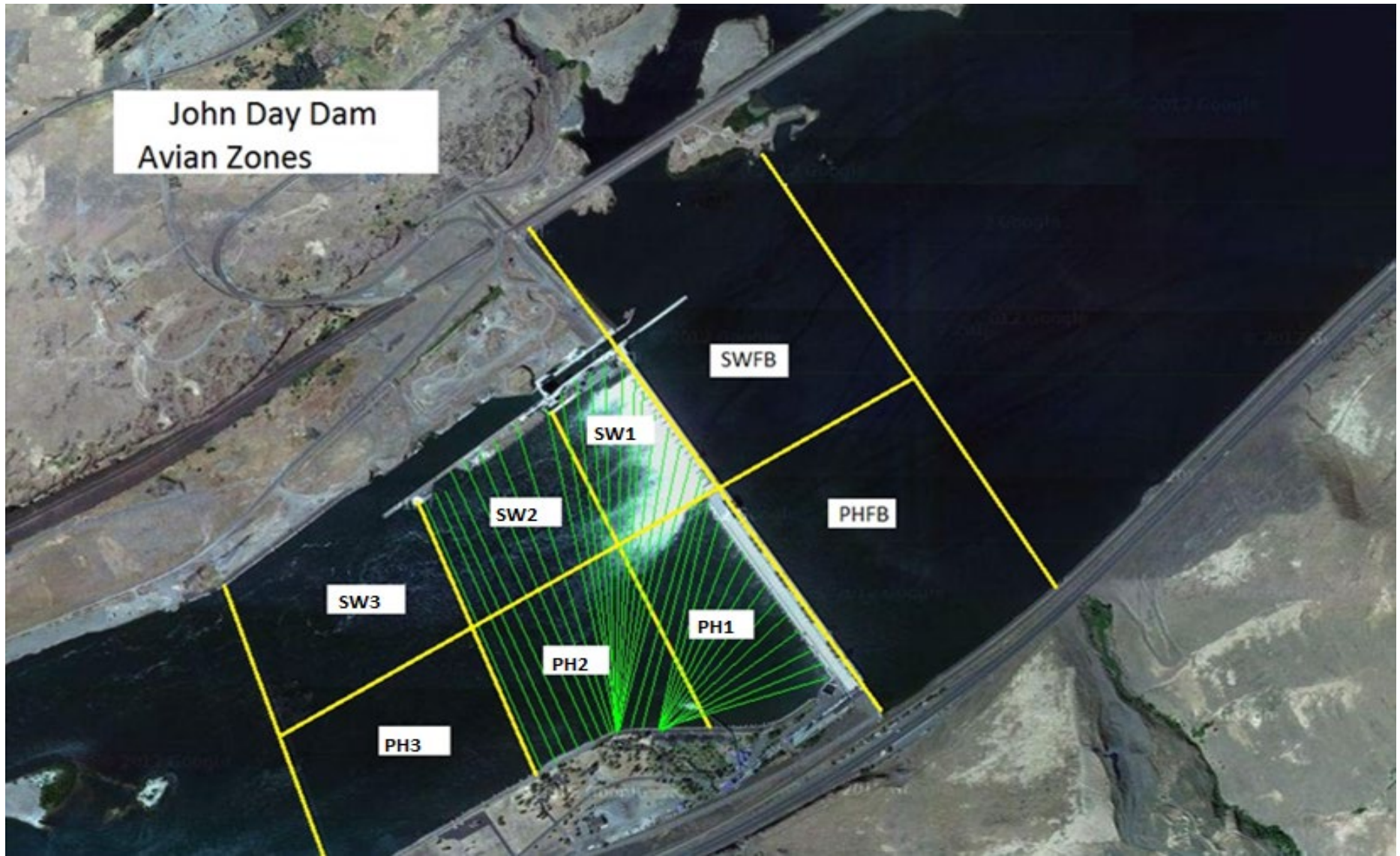
## JOHN DAY WEEKLY AVERAGES

	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	8.7	1.7	9.1	9.1	1.9	1.6	4.5	80.0	34.6	19
Sunday	10.2	1.2	9.9	10.0	2.0	1.3	4.7	105.2	34.8	19
Monday	8.8	1.6	8.9	9.0	2.0	1.6	4.6	86.7	34.6	19
Monday	10.1	1.3	10.0	10.1	1.9	1.4	4.5	100.1	34.8	19
Tuesday	9.7	1.4	9.7	9.7	2.0	1.4	4.7	97.6	34.9	19
Tuesday	10.2	1.3	10.0	10.1	1.9	1.5	4.5	97.0	34.4	19
Wednesday	9.7	1.6	10.2	10.2	1.6	1.5	4.6	97.9	34.0	19
Wednesday	9.9	1.4	10.1	10.2	1.3	1.5	4.5	97.9	34.2	19
Thursday	9.3	1.4	10.0	10.0	1.6	1.5	4.6	84.0	34.6	19
Thursday	9.9	1.5	10.5	10.6	1.3	1.4	4.6	100.1	33.7	19
Friday	9.5	1.6	9.6	9.6	1.9	1.4	4.6	78.9	34.8	19
Friday	10.2	1.4	10.1	10.2	1.8	1.5	4.7	98.7	34.7	19
Saturday	8.6	1.6	9.2	9.2	2.0	1.4	4.6	71.2	32.4	19
Saturday	9.2	1.7	9.7	9.9	2.0	1.4	4.6	84.1	35.0	19
<b>AVG:</b>	<b>9.6</b>	<b>1.5</b>	<b>9.8</b>	<b>9.9</b>	<b>1.8</b>	<b>1.5</b>	<b>4.6</b>	<b>91.4</b>	<b>34.4</b>	<b>19.0</b>

	Temp (F)	Secchi (Ft)	Fallbacks	Average # of Pelicans on Island Per Day
Sunday	64.6	6.0	N/A	265
Monday	65.0	6.0		200
Tuesday	65.6	6.0	N/A	250
Wednesday	65.2	6.0		300
Thursday	65.5	6.0	N/A	150
Friday	65.9	6.0		115
Saturday	65.9	6.0	N/A	185
<b>AVG</b>	<b>65.4</b>	<b>6.0</b>	<b>#DIV/0!</b>	<b>209</b>



John Day Dam  
Avian Zones





**JDA Bird Counts: 7/10/22 to 7/16/22**

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

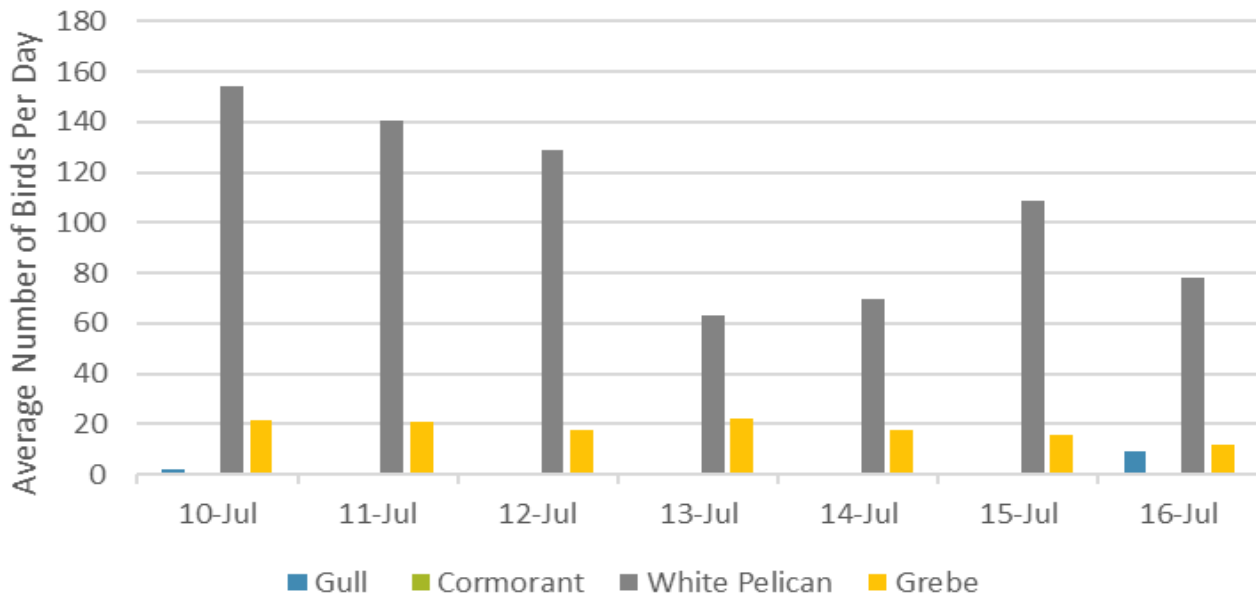
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
10-Jul	PHFB	0	0	19	21	0	0	0	0	0	0	0	0	16	11	0	0	23	20	0	0	110
10-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Jul	PH1	3	0	0	0	0	0	0	0	0	0	0	0	21	28	0	0	0	0	0	0	52
10-Jul	PH2	1	0	0	0	0	0	0	0	0	0	0	0	17	8	0	0	0	0	0	0	26
10-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	54	4	0	0	0	0	0	0	58
10-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	29	37	0	0	0	0	0	0	66
10-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	17	10	0	0	0	0	0	0	27
10-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	32	25	0	0	0	0	0	0	57
<b>Total/Survey</b>		<b>2</b>		<b>20</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>155</b>		<b>0</b>		<b>22</b>		<b>0</b>		<b>198</b>
11-Jul	PHFB	0	0	10	10	0	0	0	0	0	0	0	0	9	2	0	0	26	16	0	0	73
11-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	15	28	0	0	0	0	0	0	43
11-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	13	45	0	0	0	0	0	0	58
11-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	60	15	0	0	0	0	0	0	75
11-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	26	24	0	0	0	0	0	0	50
11-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	11	9	0	0	0	0	0	0	20
11-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	13	11	40	0	0	0	0	0	64
<b>Total/Survey</b>		<b>0</b>		<b>10</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>141</b>		<b>20</b>		<b>21</b>		<b>0</b>		<b>192</b>
12-Jul	PHFB	0	0	11	42	0	0	0	0	0	0	0	0	5	3	0	0	20	15	0	0	96
12-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	25	22	0	0	0	0	0	0	47
12-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	12	42	0	0	0	0	0	0	54
12-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	20	13	0	0	0	0	0	0	33
12-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	22	26	0	0	0	0	0	0	48
12-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	13	0	0	0	0	0	0	20
12-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	23	25	0	0	0	0	0	0	48
<b>Total/Survey</b>		<b>0</b>		<b>27</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>129</b>		<b>0</b>		<b>18</b>		<b>0</b>		<b>173</b>
13-Jul	PHFB	0	0	50	30	0	0	0	0	0	0	0	0	4	6	0	0	25	20	0	0	135
13-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
13-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	21	17	0	0	0	0	0	0	38
13-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	29	13	0	0	0	0	0	0	42
13-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	30	1	0	0	0	0	0	0	31
<b>Total/Survey</b>		<b>0</b>		<b>40</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>63</b>		<b>0</b>		<b>23</b>		<b>0</b>		<b>126</b>

**JDA Bird Counts: 7/14/22 to 7/16/22**

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)	
14-Jul	PHFB	0	0	25	5	0	0	0	0	0	0	0	0	4	20	0	0	15	20	0	0	89
14-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jul	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	10
14-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	5	20	0	0	0	0	0	0	25
14-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	40	10	0	0	0	0	0	0	50
14-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30
<b>Total/Survey</b>		<b>0</b>	<b>0</b>	<b>15</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>102</b>
15-Jul	PHFB	0	0	30	12	0	0	0	0	0	0	0	0	6	6	0	0	16	15	0	0	85
15-Jul	SWFB	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
15-Jul	PH1	2	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	8
15-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	17	6	0	0	0	0	0	0	23
15-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	56	10	0	0	0	0	0	0	66
15-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	14	9	0	0	0	0	0	0	23
15-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	0	11
15-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	75	1	0	0	0	0	0	0	76
<b>Total/Survey</b>		<b>1</b>	<b>0</b>	<b>33</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>109</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>158</b>
16-Jul	PHFB	0	0	56	47	0	0	0	0	0	0	0	0	5	4	0	0	12	12	0	0	136
16-Jul	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul	PH1	11	7	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	0	0	0	26
16-Jul	PH2	0	0	0	0	0	0	0	0	0	0	0	0	10	15	0	0	0	0	0	0	25
16-Jul	PH3	0	0	0	0	0	0	0	0	0	0	0	0	55	27	0	0	0	0	0	0	82
16-Jul	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-Jul	SW2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
16-Jul	SW3	0	0	0	0	0	0	0	0	0	0	0	0	20	10	0	0	0	0	0	0	30
<b>Total/Survey</b>		<b>9</b>	<b>7</b>	<b>52</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>151</b>
<b>Totals</b>		<b>Gulls</b>		<b>Cormorant</b>		<b>Caspian tern</b>		<b>White Pelican</b>		<b>Grebe</b>		<b>Total</b>										
		<b>F</b>	<b>NF</b>	<b>F</b>	<b>NF</b>	<b>F</b>	<b>NF</b>	<b>F</b>	<b>NF</b>	<b>F</b>	<b>NF</b>	<b>F</b>	<b>NF</b>									
<b>Weekly Total</b>		<b>24</b>	<b>392</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1486</b>	<b>40</b>	<b>255</b>	<b>0</b>	<b>1099</b>										
<b>Avg/Survey</b>		<b>2</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>3</b>	<b>18</b>	<b>0</b>	<b>157</b>										

## Foraging Piscivorous Birds



## Non-Foraging Piscivorous Birds

