

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 8/13/2022

Inspection Period: 8/7/2022 thru 8/13/2022



**US Army Corps  
of Engineers**  
Portland District

JD/WC Project-Fisheries  
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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:	71.3 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.)	9.1				
Collection channel velocity	0	1.5 - 4 fps	AVG (Ft.)	2.75				
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.)	9.5				
<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 8/22-8/25					
Turbine trashrack drawdown	0	<1.5', wkly						
Vert barrier screen drawdown	0	<1.2', wkly						
Spill volume	0	per FPP	AVG (kcfs)	62.3	Avg %	34.9		
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. High water temperature protocol went into effect on July 28th when water temperatures exceeded 70°F. Samples will continue to target 100 of the predominant out-migrant smolt on Mondays and Thursdays until daily average river water temperatures fall below 69.5 deg.

### **Adult Ladder Operations:**

Both ladders are operating within criteria. Ladders switched to salmon mode on 7/19.  
Currently in block study (8/2-8/16) 2-on 2-off days alternating between shad/salmon mode on SFL (See MOC # JDA07)

### **Project Operations:**

Current outages: MU4, MU6, MU7, MU10, MU11, MU15  
Summer spill started 06/16.  
USDA avian hazing ended July 31.

### **Maintenance:**

South fish turbine #2 was forced out of service on 30 March with an excessive vibration issue. The turbine was repaired as of 8/11 however awaiting crane repairs to pull bulkheads before returning to service. Can't test repairs until that happens.  
NFL HVAC unit replaced and returned to service on 6 July - repairs did NOT fully fix the HVAC system and the repairs are currently being investigated

### **Calibration:**

All gauges within the 0.3' criteria.  
Bay 19 TW sensor is OOC. However the weirs controlled by that sensor are in manual mode, and there is a staff gauge for daily inspections

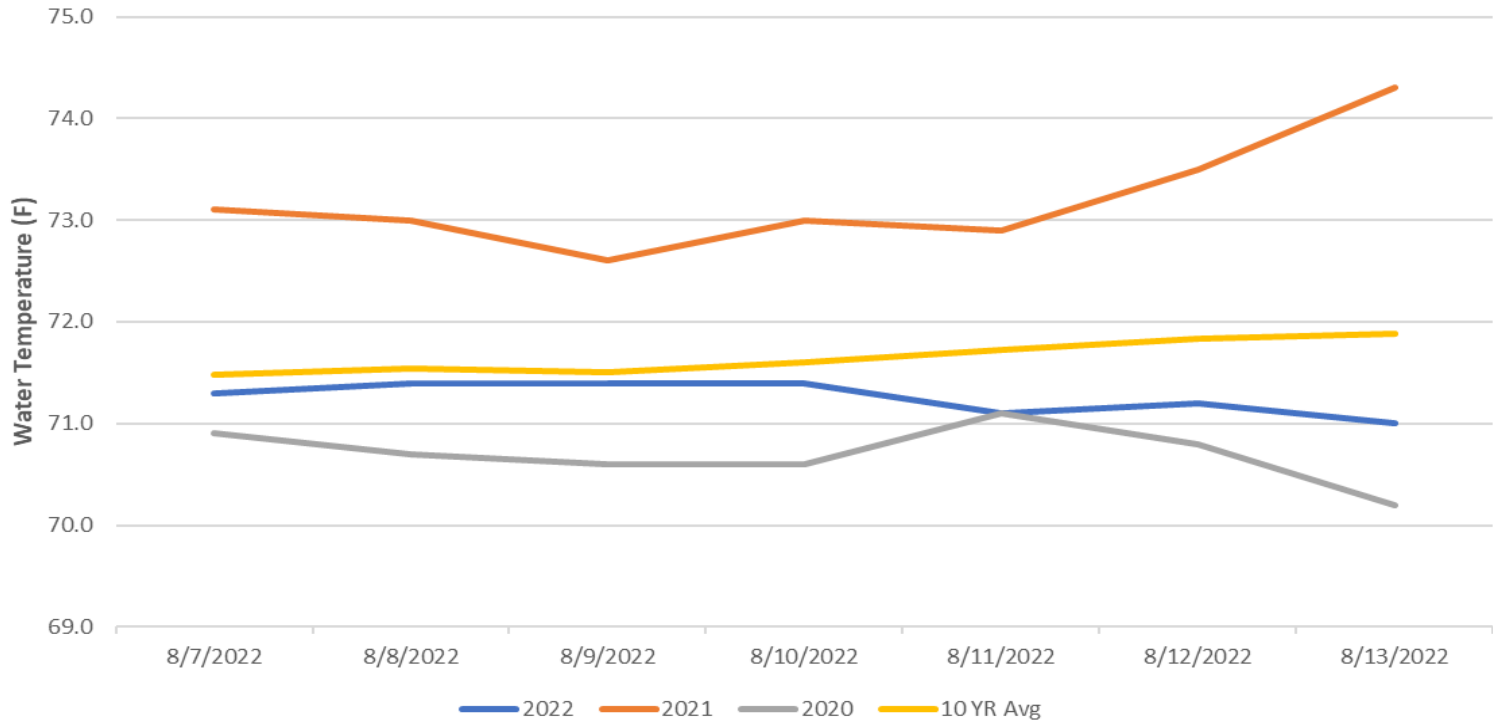
### **Bird Data:**

Gull, grebe, and pelican numbers are decreased. A few cormorants are now being observed.  
5 of 125 avian lines down.

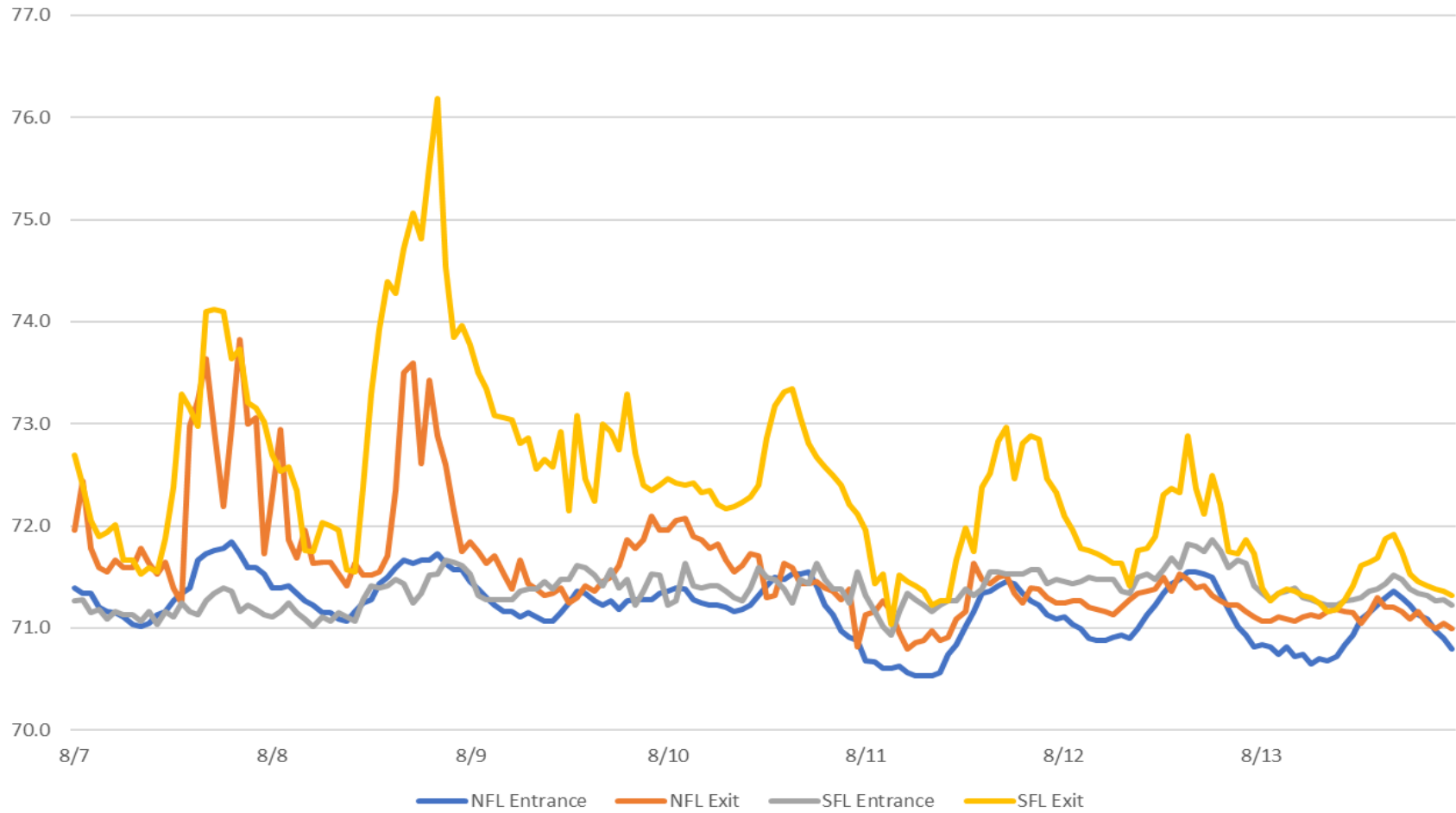
### **Research:**

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 (°F) Week Ending 8/13/22



# 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)
8/8/2022	Unit 4	2.74	68,0,68	160.1
8/8/2022	Unit 12	2.83	68,0,68	160.1
8/10/2022	Unit 4	2.66	68,0,68	160.1
8/10/2022	Unit 12	2.78	68,0,68	160.1
8/13/2022	Unit 4	2.67	68,0,68	160.2
8/13/2022	Unit 12	2.84	68,0,68	160.2

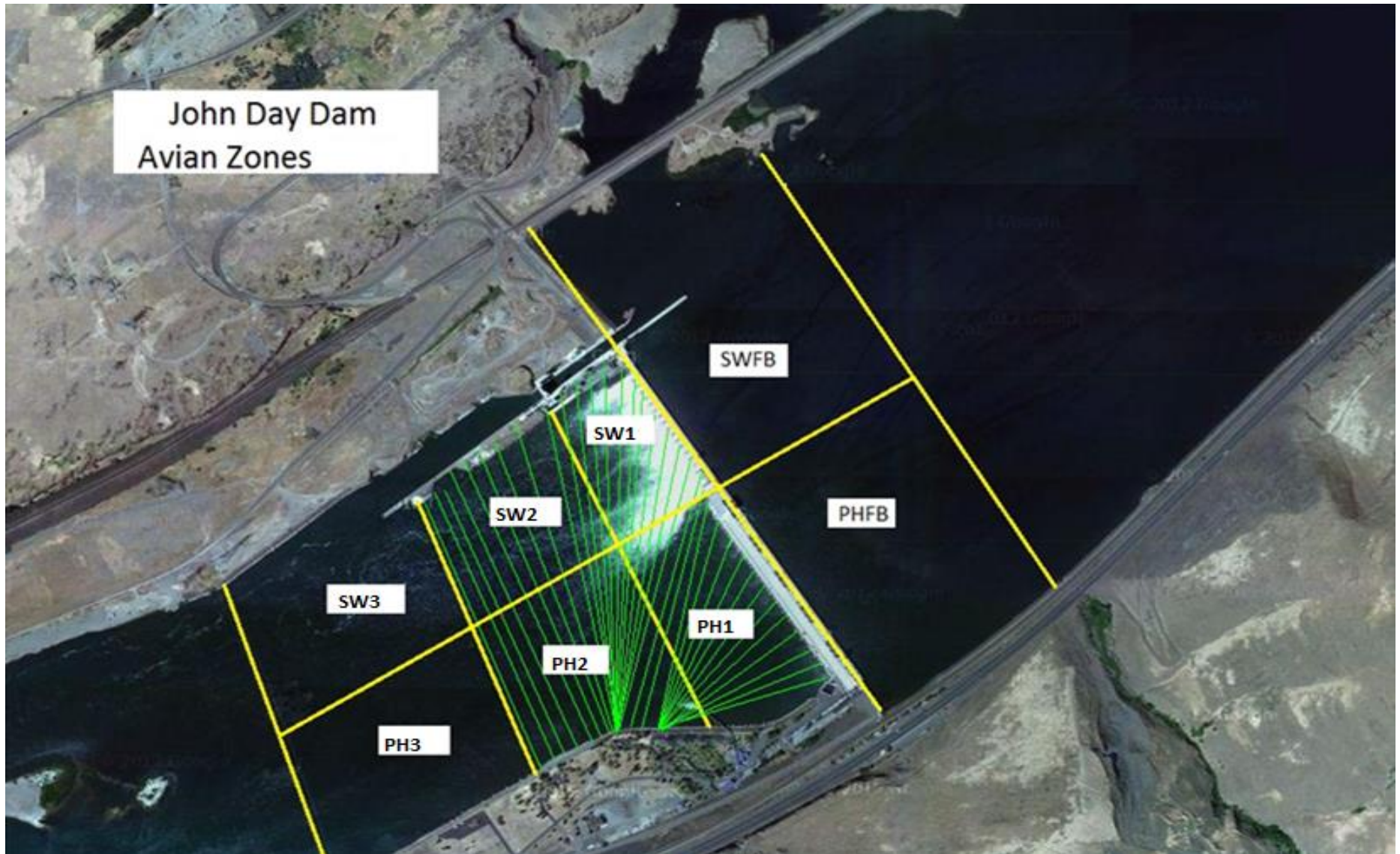
Average Weekly Velocity (ft/sec)	2.75
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## JOHN DAY WEEKLY AVERAGES

	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	1.6	9.2	9.4	2.0	1.6	4.6	56.2	35.3	19
Sunday	9.3	1.3	9.6	9.8	2.0	1.6	4.6	70.1	34.4	19
Monday	8.5	1.8	8.8	9.0	2.0	1.4	4.5	44.2	35.4	19
Monday	9.9	1.9	9.9	10.1	1.9	1.4	4.6	72.0		19
Tuesday	8.7	1.5	8.8	9.0	1.9	1.5	4.6	56.2		19
Tuesday	9.0	1.5	9.5	9.7	1.9	1.5	4.7	63.1	34.0	19
Wednesday	9.1	1.4	8.7	8.9	1.4	1.4	4.6	53.1	34.9	19
Wednesday	10.2	1.2	10.8	11.0	1.4	1.4	4.6	81.1	34.8	19
Thursday	9.5	1.3	9.2	9.4	2.0	1.5	4.5	66.9	34.8	19
Thursday	9.6	1.3	10.2	10.4	1.5	1.4	4.6	74.3	35.2	19
Friday	8.1	1.6	8.7	8.9	1.8	1.6	4.6	56.5	35.0	19
Friday	8.6	1.6	9.0	9.2	1.9	1.5	4.7	60.0	35.0	19
Saturday	8.7	1.3	9.0	9.2	1.7	1.5	4.6	56.0	35.1	19
Saturday	9.0	1.1	9.1	9.3	1.7	1.6	4.5		35.0	19
<b>AVG:</b>	<b>9.1</b>	<b>1.5</b>	<b>9.3</b>	<b>9.5</b>	<b>1.8</b>	<b>1.5</b>	<b>4.6</b>	<b>62.3</b>	<b>34.9</b>	<b>19.0</b>

	Temp (F)	Secchi (Ft)	Average # of Pelicans on Island Per Day
Sunday	71.3	6.0	186
Monday	71.4	6.0	220
Tuesday	71.4	6.0	155
Wednesday	71.6	6.0	150
Thursday	71.0	6.0	160
Friday	71.2	6.0	221
Saturday	71.0	6.0	188
<b>AVG</b>	<b>71.3</b>	<b>6.0</b>	<b>183</b>

John Day Dam  
Avian Zones



**JDA Bird Counts: 8/7/22 to 8/13/22**

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)	
7-Aug	PHFB	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	8
7-Aug	SWFB	0	0	17	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
7-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	4
7-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	7	17	0	0	0	0	0	0	24
7-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	25	47	0	0	0	0	0	0	72
7-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	6	11	0	0	0	0	0	0	17
<b>Total/Survey</b>		<b>0</b>		<b>17</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>59</b>		<b>0</b>		<b>3</b>		<b>0</b>		<b>78</b>
8-Aug	PHFB	0	0	3	3	0	0	3	0	0	0	0	0	0	0	0	0	2	4	0	0	15
8-Aug	SWFB	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
8-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5
8-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
8-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20
8-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16
8-Aug	SW2	0	0	0	0	1	0	0	0	0	0	0	0	3	38	0	0	0	0	0	0	42
8-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	4	41	0	0	0	0	0	0	45
<b>Total/Survey</b>		<b>0</b>		<b>19</b>		<b>1</b>		<b>2</b>		<b>0</b>		<b>0</b>		<b>66</b>		<b>0</b>		<b>3</b>		<b>0</b>		<b>89</b>
9-Aug	PHFB	0	0	2	0	0	0	12	0	0	0	0	0	3	0	0	0	0	0	0	0	17
9-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
9-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
9-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
9-Aug	SW2	0	0	2	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	8
9-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	0	0	0	0	0	11
<b>Total/Survey</b>		<b>0</b>		<b>2</b>		<b>0</b>		<b>6</b>		<b>0</b>		<b>0</b>		<b>20</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>28</b>
10-Aug	PHFB	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	9
10-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-Aug	SW2	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
10-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
<b>Total/Survey</b>		<b>14</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>0</b>		<b>3</b>		<b>0</b>		<b>3</b>		<b>0</b>		<b>20</b>

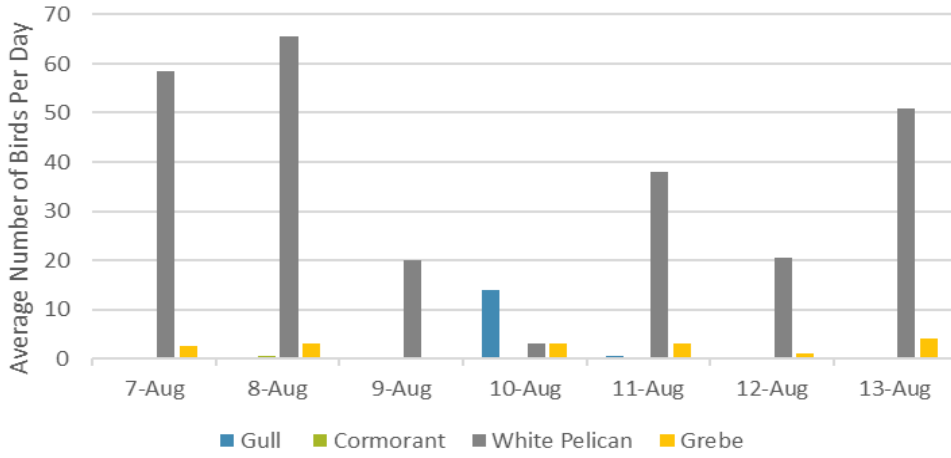


**JDA Bird Counts: 8/11/22 to 8/13/22**

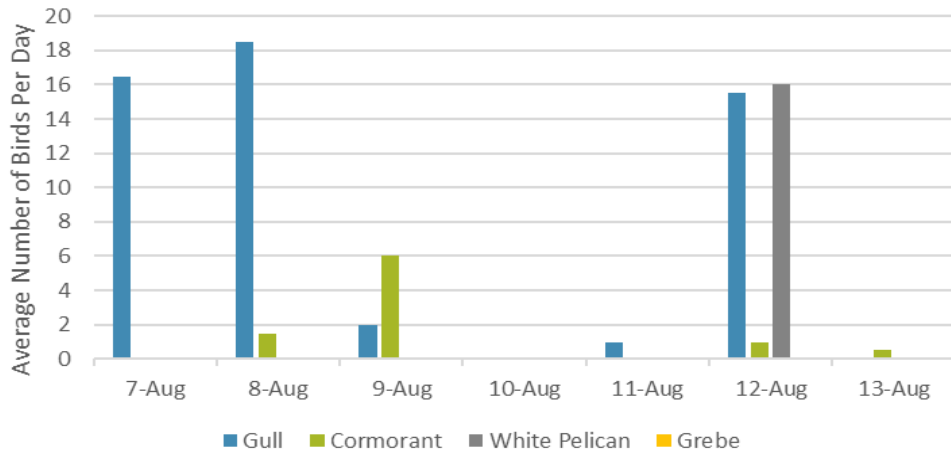
F(1): Forage AM survey   F(2): Forage PM Survey   NF(1): Non-Forage AM Survey   NF(2): Non-Forage PM Survey

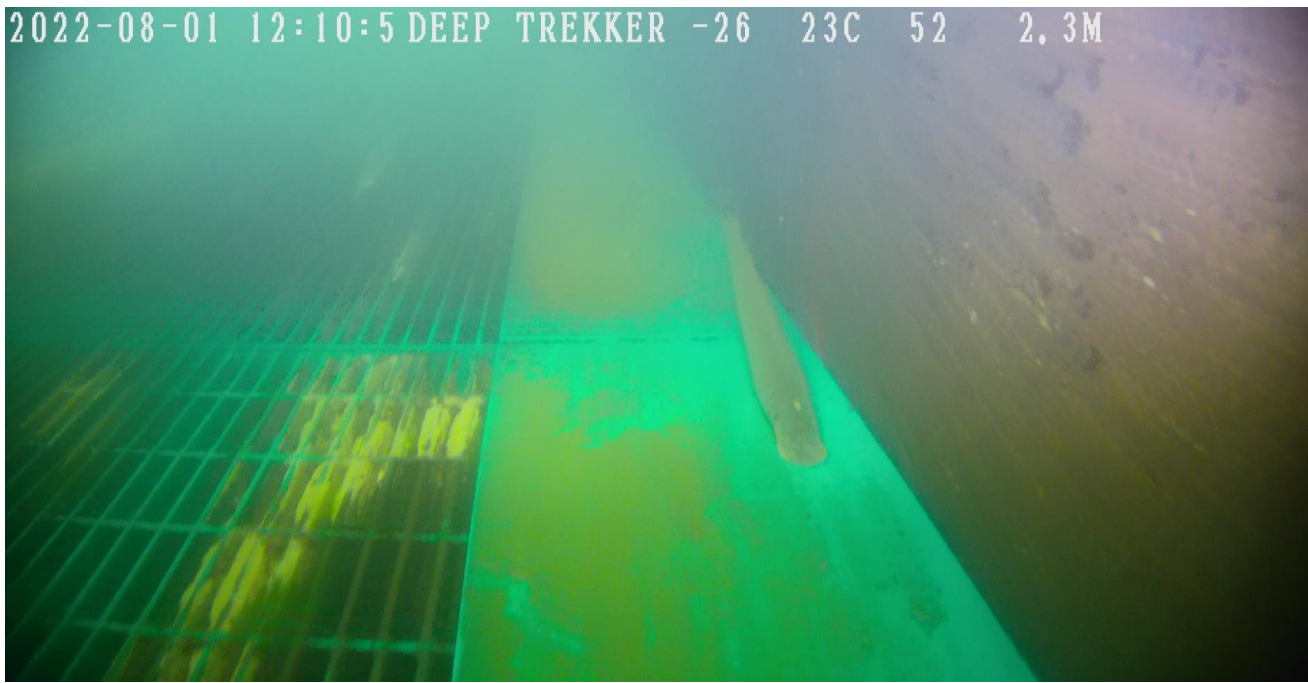
Date	Zone	Gulls				Cormorant				Caspian tern				White Pelican				Grebe				Total
		F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	F(1)	F(2)	NF(1)	NF(2)	
11-Aug	PHFB	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	9
11-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
11-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
11-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	5	7	0	0	0	0	0	0	12
11-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
11-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
11-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	10	11	0	0	0	0	0	0	21
<b>Total/Survey</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>2</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>38</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>
12-Aug	PHFB	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	4
12-Aug	SWFB	0	0	23	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
12-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	4
12-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	6	5	0	0	0	0	0	0	11
12-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4
12-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4
12-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	6	12	32	0	0	0	0	0	50
<b>Total/Survey</b>		<b>0</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54</b>
13-Aug	PHFB	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	3	0	0	9
13-Aug	SWFB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-Aug	PH2	0	0	0	0	0	0	0	0	0	0	0	0	6	6	0	0	0	0	0	0	12
13-Aug	PH3	0	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	0	0	0	16
13-Aug	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
13-Aug	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
13-Aug	SW3	0	0	0	0	0	0	0	0	0	0	0	0	23	22	0	0	0	0	0	0	45
<b>Total/Survey</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>51</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>56</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>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>29</b>	<b>107</b>	<b>1</b>	<b>18</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>513</b>	<b>32</b>	<b>33</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Avg/Survey</b>		<b>2</b>	<b>8</b>	<b>0</b>	<b>1</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>37</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>52</b>

### Foraging Piscivorous Birds



### Non-Foraging Piscivorous Birds





Lamprey in NFL during AWS ROV inspection on 8/1/22.