

## FISHWAY STATUS REPORT - JOHN DAY DAM

Date: 5/8/2021

Inspection Period: 5/2/2021 thru 5/8/2021



**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.

|                     |                   |                   |                                 |  |                     |                 |
|---------------------|-------------------|-------------------|---------------------------------|--|---------------------|-----------------|
| <b>John Day Dam</b> | Inspection<br>OOC | Criteria<br>Limit | Total Number of Inspections: 14 |  | Temperature: 54.7 F | Secchi: 6.0 Ft. |
|---------------------|-------------------|-------------------|---------------------------------|--|---------------------|-----------------|

### NORTH FISHWAY

|                            |   |              |                        |     |  |  |  |  |  |
|----------------------------|---|--------------|------------------------|-----|--|--|--|--|--|
| Exit differential          | 0 | ≤ 0.5'       |                        |     |  |  |  |  |  |
| Exit Control weirs         | 0 | High setting | High setting is normal |     |  |  |  |  |  |
| 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  | Mid setting is normal |      |  |  |  |  |  |
| 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.)             | 1.3  |  |  |  |  |  |
| Entrance weir SE1                  | 0 | depth (≥ 8') | AVG (Ft.)             | 9.5  |  |  |  |  |  |
| Collection channel velocity        | 0 | 1.5 - 4 fps  | AVG (Ft.)             | 2.79 |  |  |  |  |  |
| N. Entrance PH(Bay 19)differential | 0 | 1.0' - 2.0'  | AVG (Ft.)             | 1.5  |  |  |  |  |  |
| Entrance weir NE1                  | 0 | depth (≥ 8') | AVG (Ft.)             | 10.2 |  |  |  |  |  |
| Entrance weir NE2                  | 0 | depth (≥ 8') | AVG (Ft.)             | 10.4 |  |  |  |  |  |

### JUVENILE PASSAGE

|                                     |   |                |                        |           |       |      |  |  |  |
|-------------------------------------|---|----------------|------------------------|-----------|-------|------|--|--|--|
| Forebay/bypass conduit differential | 0 | 4.0' - 5.0'    | AVG (Ft.)              | 4.6       |       |      |  |  |  |
| Submersible traveling screens       | 0 | visual inspect | Next Visual Inspection | 5/24-5/27 |       |      |  |  |  |
| Turbine trashrack drawdown          | 0 | <1.5', wkly    |                        |           |       |      |  |  |  |
| Vert barrier screen drawdown        | 0 | <1.5', wkly    |                        |           |       |      |  |  |  |
| Spill volume                        | 0 | per FPP        | AVG (kcfs)             | 128.6     | Avg % | 59.5 |  |  |  |
| 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 is currently conducting condition sampling every-other-day.

### **Adult Ladder Operations:**

South and north fish ladders are operating within criteria.

### **Project Operations:**

Current outages: MU5-8 (Line 2 BPA MOD work), MU7, MU8, MU12, MU16. Spring spill started on April 10 with TSW's installed.

Tailwater Average Weekly TDG: 119.0 Spillbay 10 was OOS from 4/22 to 4/26. Spill was distributed to adjacent bays to meet total spill discharge. The problem has been fixed and SB#10 will be operated manually until further notice.

### **Maintenance:**

JD North Fishway's pump 4 has been pulled for maintenance (RTS to be determined). Spillbay #10 will be operated manually until further notice.

Calibration - All gauges within the 0.3' criteria.

### **Bird Data:**

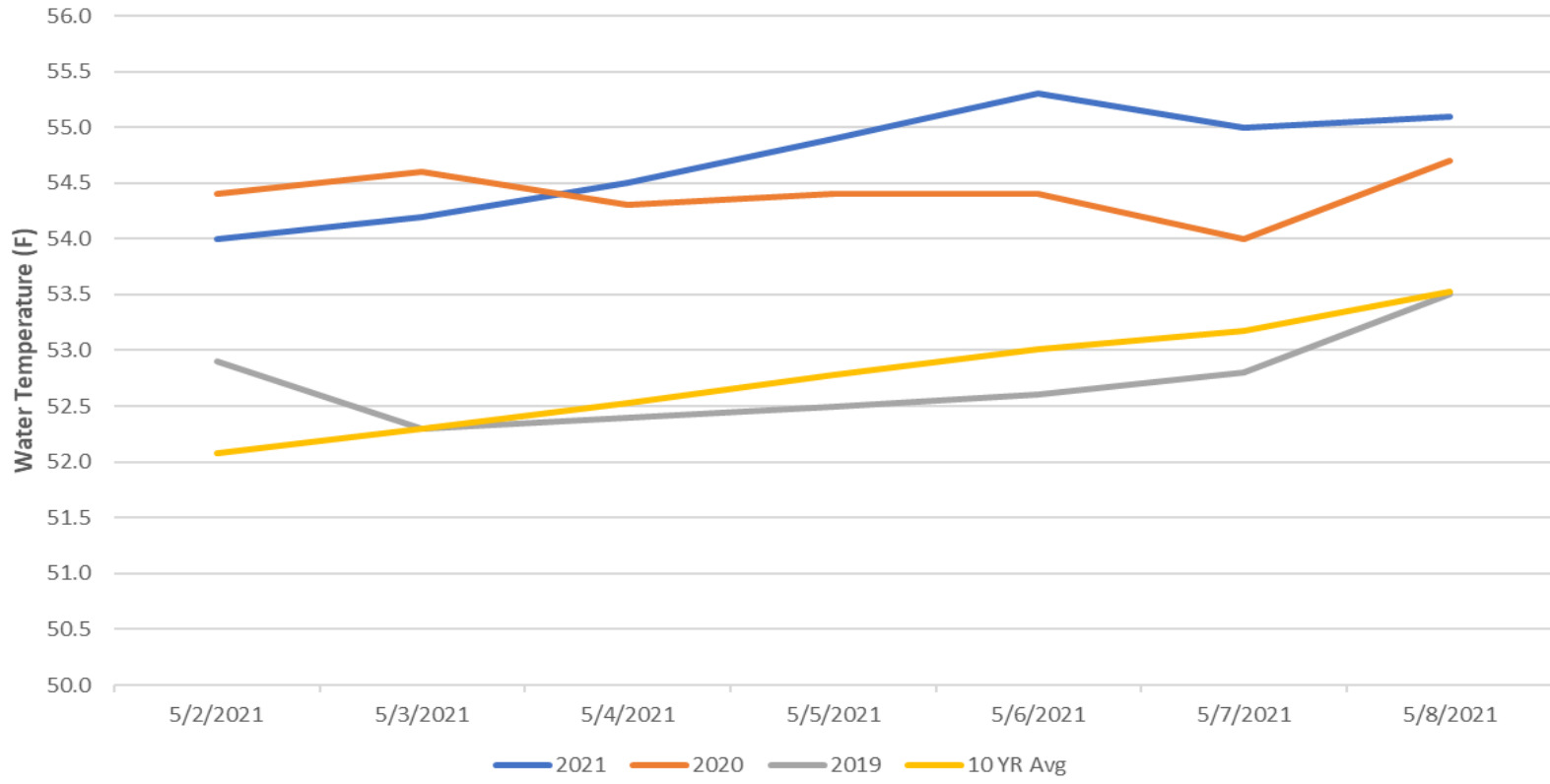
Cormorants have dispersed, no sightings this week. Gull numbers increasing and mainly seen foraging below spillway. Pelican numbers increasing on Preacher's Island. Steady number of Grebes in PHFB. (see 'Bird Graph' tab for details). USDA Hazing started

1 of 125 avian lines down, will need to be replaced  
Pelicans on Preacher's Island: averaged 31 per day

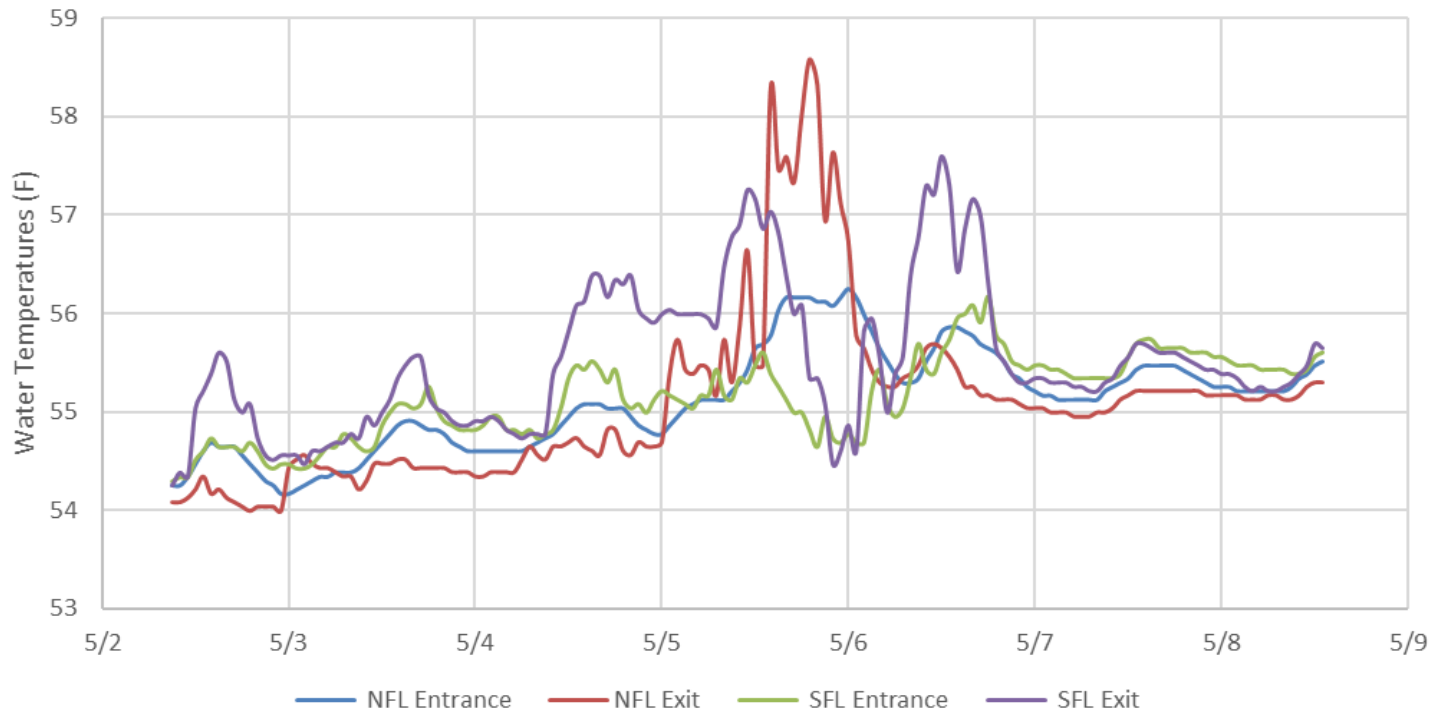
### **Research:**

PSMFC Juvenile lamprey genetic work continues.

John Day Dam Water Temperatures (F)



Water Temperatures of JDA Fish Ladders (5/2 - 5/8)



# 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) |
|----------|----------------------|----------------|--------------------------|----------------|
| 5/3/2021 | Unit 4               | 2.85           | 0,68,68                  | 161.6          |
| 5/3/2021 | Unit 12              | 2.97           | 0,68,68                  | 161.6          |
| 5/7/2021 | Unit 4               | 2.60           | 0,68,68                  | 160.7          |
| 5/7/2021 | Unit 12              | 2.76           | 0,68,68                  | 160.7          |
| 5/8/2021 | Unit 4               | 2.78           | 0,68,68                  | 160.8          |
| 5/8/2021 | Unit 12              | 2.79           | 0,68,68                  | 160.8          |

|                                  |      |
|----------------------------------|------|
| Average Weekly Velocity (ft/sec) | 2.79 |
|----------------------------------|------|

## 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      | 10.0        | 10.2        | 1.1        | 9.6        | 1.5        | 4.6           | 1.6        | 57.0              | 32.0        | 19          |
| Sunday      | 9.3         | 9.5         | 1.2        | 8.9        | 1.4        | 4.5           | 1.8        | 128.0             | 70.7        | 19          |
| Monday      | 10.9        | 11.1        | 1.3        | 10.0       | 1.6        | 4.7           | 1.3        | 68.0              | 32.0        | 19          |
| Monday      | 9.8         | 10.0        | 1.3        | 8.9        | 1.7        | 4.6           | 1.5        | 159.2             | 75.0        | 19          |
| Tuesday     | 11.1        | 11.3        | 1.2        | 10.6       | 1.5        | 4.6           | 1.5        | 70.0              | 32.0        | 19          |
| Tuesday     | 10.3        | 10.5        | 1.2        | 9.4        | 1.6        | 4.5           | 1.1        | 168.1             | 73.4        | 19          |
| Wednesday   | 9.6         | 9.8         | 1.3        | 8.9        | 1.7        | 4.7           | 1.7        | 168.0             | 76.0        | 19          |
| Wednesday   | 10.0        | 10.2        | 1.5        | 8.9        | 1.6        | 4.6           | 1.3        | 168.0             | 76.0        | 19          |
| Thursday    | 10.6        | 10.8        | 1.4        | 9.9        | 1.7        | 4.4           | 1.6        | 70.0              | 31.4        | 18          |
| Thursday    | 10.2        | 10.4        | 1.5        | 9.3        | 1.4        | 4.6           | 1.6        | 167.5             | 74.9        | 19          |
| Friday      | 10.0        | 10.2        | 1.1        | 9.6        | 1.6        | 4.4           | 1.6        | 169.1             | 75.8        | 19          |
| Friday      | 10.3        | 10.5        | 1.2        | 9.4        | 1.7        | 4.5           | 1.2        | 164.9             | 75.4        | 19          |
| Saturday    | 10.1        | 10.3        | 1.1        | 10.3       | 1.5        | 4.6           | 1.5        | 70.1              | 32.4        | 19          |
| Saturday    | 10.4        | 10.6        | 1.1        | 9.5        | 1.6        | 4.5           | 1.5        | 172.0             | 76.5        | 19          |
| <b>AVG:</b> | <b>10.2</b> | <b>10.4</b> | <b>1.3</b> | <b>9.5</b> | <b>1.6</b> | <b>4.6</b>    | <b>1.5</b> | <b>128.6</b>      | <b>59.5</b> | <b>18.9</b> |

|            | Temp (F)    | Secchi (Ft) | Fallbacks | Pelicans on Island |
|------------|-------------|-------------|-----------|--------------------|
| Sunday     | 54.0        | 6.0         | N/A       | 20                 |
| Monday     | 54.2        | 6.0         | 0         | 60                 |
| Tuesday    | 54.5        | 6.0         | N/A       | 50                 |
| Wednesday  | 54.9        | 6.0         | 3         | 20                 |
| Thursday   | 55.3        | 6.0         | N/A       | 25                 |
| Friday     | 55.0        | 6.0         | 0         | 26                 |
| Saturday   | 55.1        | 6.0         | N/A       | 15                 |
| <b>AVG</b> | <b>54.7</b> | <b>6.0</b>  | <b>1</b>  | <b>31</b>          |

John Day Dam  
Avian Zones



**JDA Bird Counts: 5/2/21 to 5/8/21**

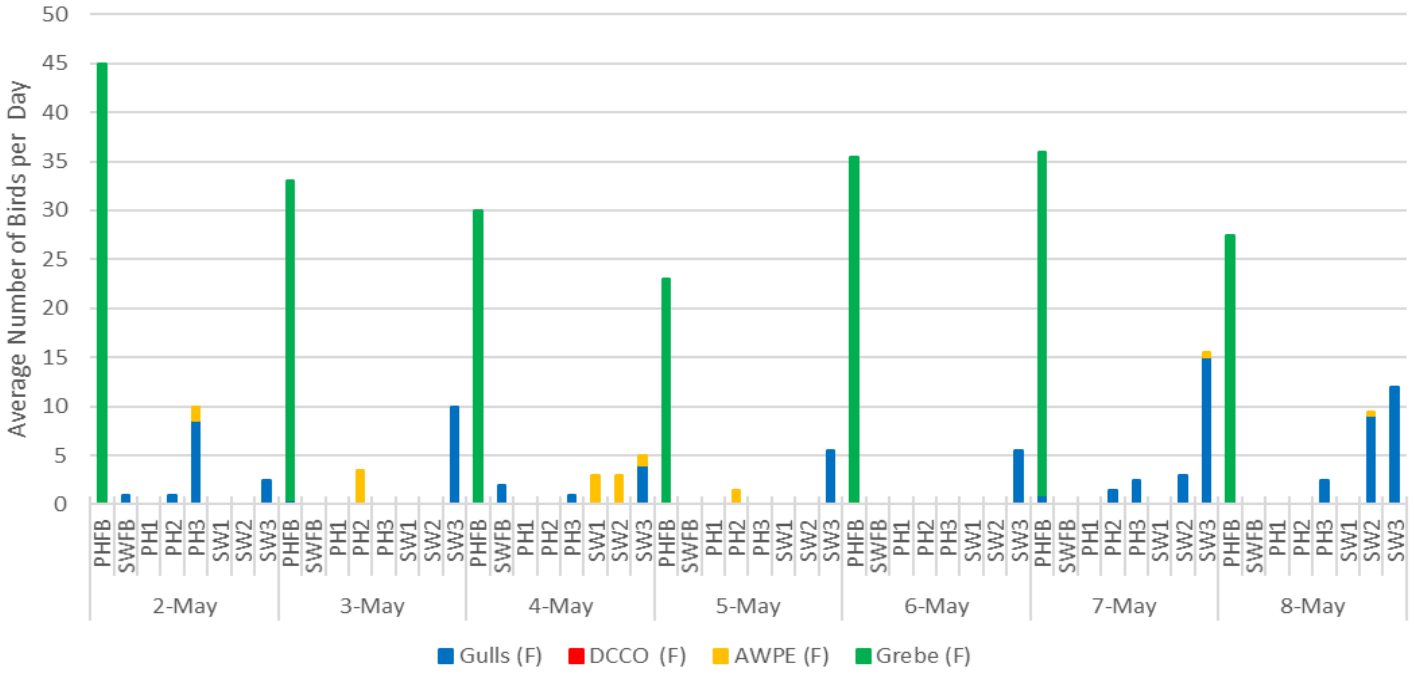
F(1): Forage AM survey F(2): Forage PM Survey NF(1): Non-Forage AM Survey NF(2): Non-Forage PM Survey

| Date              | Zone | Gulls     |      |          |       | Cormorant |      |          |       | Caspian tern |      |          |       | White Pelican |      |          |       | Grebe     |      |          |       | Bald Eagle |      |          |       | 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) | F(1)       | F(2) | NF(1)    | NF(2) |           |
| 2-May             | PHFB | 0         | 0    | 3        | 2     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 47        | 43   | 0        | 0     | 0          | 0    | 0        | 0     | 95        |
| 2-May             | SWFB | 0         | 2    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 2         |
| 2-May             | PH1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 2-May             | PH2  | 0         | 2    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 2         |
| 2-May             | PH3  | 5         | 12   | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 3    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 20        |
| 2-May             | SW1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 2-May             | SW2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 2-May             | SW3  | 0         | 5    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 5         |
| <b>Avg/Survey</b> |      | <b>13</b> |      | <b>3</b> |       | <b>0</b>  |      | <b>0</b> |       | <b>0</b>     |      | <b>0</b> |       | <b>2</b>      |      | <b>0</b> |       | <b>45</b> |      | <b>0</b> |       | <b>0</b>   |      | <b>0</b> |       | <b>62</b> |
| 3-May             | PHFB | 1         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 37        | 28   | 0        | 0     | 0          | 0    | 0        | 0     | 66        |
| 3-May             | SWFB | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 3-May             | PH1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 3-May             | PH2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 1             | 6    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 7         |
| 3-May             | PH3  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 3-May             | SW1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 3-May             | SW2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 3-May             | SW3  | 8         | 12   | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 20        |
| <b>Avg/Survey</b> |      | <b>11</b> |      | <b>0</b> |       | <b>0</b>  |      | <b>0</b> |       | <b>0</b>     |      | <b>0</b> |       | <b>4</b>      |      | <b>0</b> |       | <b>33</b> |      | <b>0</b> |       | <b>0</b>   |      | <b>0</b> |       | <b>47</b> |
| 4-May             | PHFB | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 40        | 20   | 0        | 0     | 0          | 0    | 0        | 0     | 60        |
| 4-May             | SWFB | 0         | 4    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 4         |
| 4-May             | PH1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 4-May             | PH2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 4-May             | PH3  | 2         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 2         |
| 4-May             | SW1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 3             | 3    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 6         |
| 4-May             | SW2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 6    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 6         |
| 4-May             | SW3  | 8         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 2             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 10        |
| <b>Avg/Survey</b> |      | <b>7</b>  |      | <b>0</b> |       | <b>0</b>  |      | <b>0</b> |       | <b>0</b>     |      | <b>0</b> |       | <b>7</b>      |      | <b>0</b> |       | <b>30</b> |      | <b>0</b> |       | <b>0</b>   |      | <b>0</b> |       | <b>44</b> |
| 5-May             | PHFB | 0         | 0    | 0        | 3     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 29        | 17   | 0        | 0     | 0          | 0    | 0        | 0     | 49        |
| 5-May             | SWFB | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 5-May             | PH1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 5-May             | PH2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 3             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 3         |
| 5-May             | PH3  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 5-May             | SW1  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 5-May             | SW2  | 0         | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 0         |
| 5-May             | SW3  | 4         | 7    | 0        | 0     | 0         | 0    | 0        | 0     | 0            | 0    | 0        | 0     | 0             | 0    | 0        | 0     | 0         | 0    | 0        | 0     | 0          | 0    | 0        | 0     | 11        |
| <b>Avg/Survey</b> |      | <b>6</b>  |      | <b>2</b> |       | <b>0</b>  |      | <b>0</b> |       | <b>0</b>     |      | <b>0</b> |       | <b>2</b>      |      | <b>0</b> |       | <b>23</b> |      | <b>0</b> |       | <b>0</b>   |      | <b>0</b> |       | <b>32</b> |

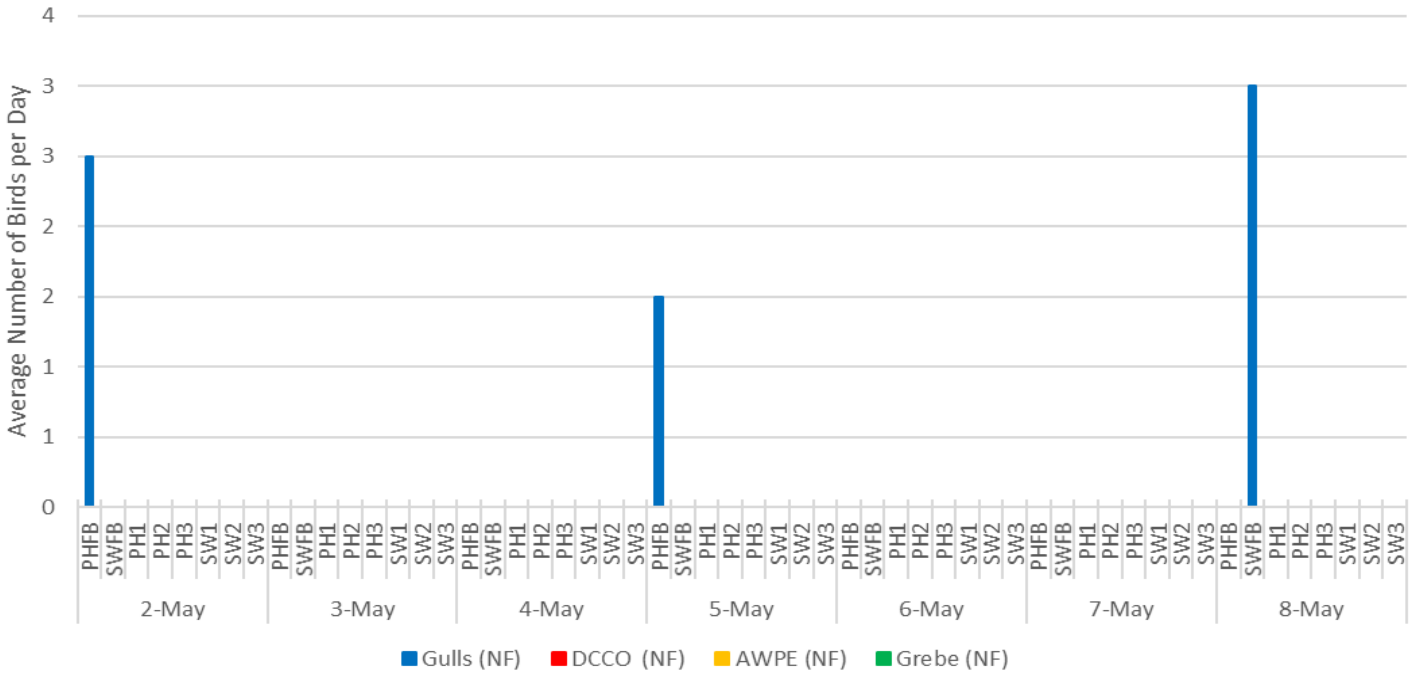




### Foraging Avian Observations



### Non-Foraging Avian Observations





Temporary boom installed at south fish ladder exit. Boom was installed 5/4/21