

FISHWAY STATUS REPORT

Date: 6/1/2019
Inspection Period: 5/26/2019 thru 6/1/2019

JOHN DAY DAM



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.
 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: | 57 F |
|-------------------------------------|-------------------|-------------------|---|------|--------------|---------|
| | | | | | Secchi: | 4.0 Ft. |
| NORTH FISHWAY | | | | | | |
| Exit differential | 0 | ≤ 0.5' | | | | |
| Exit Control weirs | 0 | High setting | High setting is normal for JDN | | | |
| Count station differential | 0 | ≤ 0.3' | | | | |
| Weir crest depth (DS gauge) | 0 | 1.0' ± 0.1' | | | | |
| Entrance differential | 0 | 1.0' - 2.0' | AVG | 1.5 | | |
| SOUTH FISHWAY | | | | | | |
| Exit differential | 0 | ≤ 0.5' | | | | |
| Exit Control weirs | 0 | Mid setting | Mid setting is normal for JDS | | | |
| Count station differential | 0 | ≤ 0.3' | | | | |
| Weir crest depth (US gauge) | 0 | 1.0' ± 0.1' | Set to Shad setting to provide more flow to SE1 | | | |
| South entrance differential | 0 | 1.0' - 2.0' | AVG | 1.3 | | |
| Entrance weir SE1 | 0 | depth (≥ 8') | AVG | 8.5 | | |
| Collection channel velocity | 0 | 1.5 - 4 fps | AVG | 2.92 | | |
| N. Entrance PH(Bay 19)differential | 0 | 1.0' - 2.0' | AVG | 1.7 | | |
| Entrance weir NE1 | 0 | depth (≥ 8') | AVG | 11.2 | | |
| Entrance weir NE2 | 0 | depth (≥ 8') | AVG | 10.6 | | |
| JUVENILE PASSAGE | | | | | | |
| Forebay/bypass conduit differential | 0 | 4.0' - 5.0' | AVG | 4.6 | | |
| Submersible traveling screens | 0 | visual inspect | | | | |
| Turbine trashrack drawdown | 0 | <1.5', wkly | N/A | | | |
| Vert barrier screen drawdown | 0 | <1.5', wkly | N/A | | | |
| Spill volume | 0 | per FPP | Spill season started 10 April | | | |
| Spill pattern | 0 | per FPP | None | | | |
| Turbine Unit Priority | 0 | per FPP | | | | |
| Turbine 1% Efficiency | 0 | per FPP | | | | |

SMOLT MONITORING FACILITY

Operation:

SMOLT MONITORING FACILITY began sampling on 3/13 at 1400. A broken pipe flange that supplies flume and rotating gate water was cracked preventing start up on 3/11.

Maintenance:

SMF SCADA update by JD Electrical/ Portland District's engineers is underway but its completion is delayed by one year to February 2020. Due to complexity of electronic components and incomplete as-builts which are pending at this time.

Research:

CRITFC genetic samples were collected by PSMFC.

ADULT FISHWAYS & TW AVIAN GRID

Birds:

USDA Bird Hazing began on 15 April. 20 Pelicans observed on island below project in tailrace
All 125 avian lines in place without any deficiencies.

Operations:

South Fish turbine 3 oos due to thrust bearing failure.

Trash raking of units began on 3/21.

MU Gatewell Drawdown All MUs trashrack differentials are 1.5' or below according to twice a week inspections.

Maintenance:

JD North AWS pump 2 returned to service on 3/27.

JD North AWS pumps frequent SKF alarms (auto greasing issues) continue and are cleared by JD Maintenance & Ops immediately. Planning for a long term fix underway.

JD South fish turbine's anti-ratchet gear was damaged beyond repair on 9 Apr. A spare is being assessed as a possible repair part.

JD North Fishway's LPS: Installation of the old pump assembly and electric controls will proceed at the end of April for start of trapping season.

JD South AWS turbine 3 is OOS, Part are to arrive on 26 April.

Calibration: All gauges/ sensors are within the criteria of 0.3'.

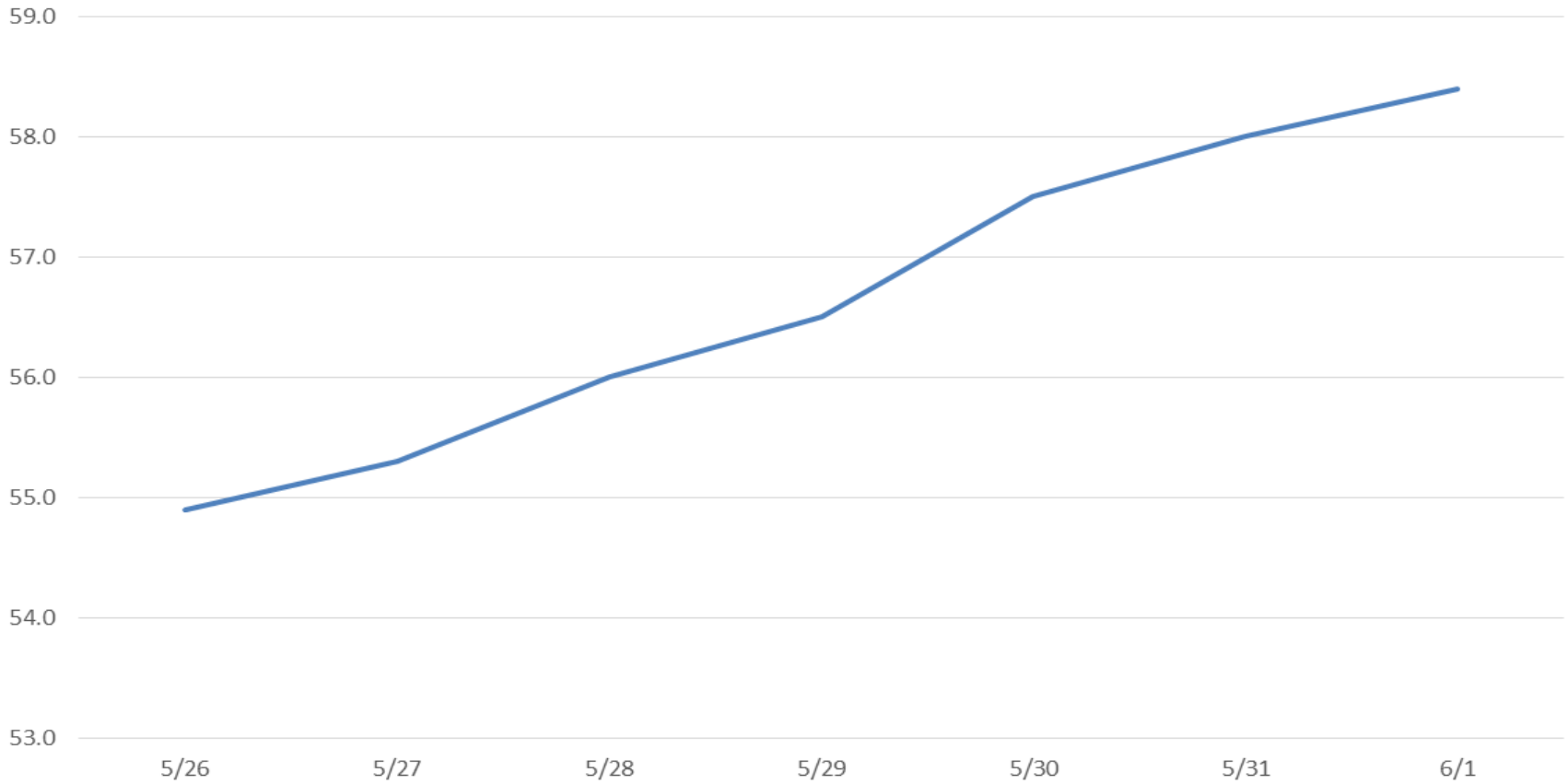
Research:

JDS and JDN Adult PIT systems are in service and detecting PIT tags since 3/1/18.

Uof I crew continues monitoring the RT Adult Lamprey passage at both JD Adult Fishways.

Approved by: Ron Twiner, Acting OPM

JDA Forebay Water Temperature (5/26/19 - 6/1/19)



JDA Collection Channel Velocity

Date 1-Jun-19

By: pete

| Bay(s) | Time | Sec. | Velocity (f/s) |
|---------|------|------|----------------|
| 0-2 | 1:03 | 63 | 2.86 |
| 2 - 4 | 2:06 | 126 | 2.86 |
| 4 - 6 | 3:08 | 188 | 2.90 |
| 6 - 8 | 4:14 | 254 | 2.73 |
| 8 - 10 | 5:19 | 319 | 2.77 |
| 10 - 12 | 6:18 | 378 | 3.05 |
| 12 - 14 | 7:18 | 438 | 3.00 |
| 14 - 16 | 8:15 | 495 | 3.16 |
| 16 - 18 | 9:15 | 555 | 3.00 |
| | | | 2.92 |

tw = 164.5

turbine 1&2 = 68 rpm

John Day Weekly Averages

| | Temp: | Secchi: | Fallbacks | |
|-------------|-----------|--|---|--------|
| Sun | 56 | 4.0 | 14 | Bypass |
| Mon | 56 | 4.0 | 10 | Sample |
| Tue | 56 | 4.0 | 34 | Bypass |
| Wed | 57 | 4.0 | 10 | Sample |
| Thur | 57 | 4.0 | 22 | Bypass |
| Fri | 58 | 4.0 | 5 | Sample |
| Sat | 58 | 4.0 | 24 | Bypass |
| AVG: | 57 | AVG: style="border: 1px solid black; text-align: center;"> 4.0 | AVG/Sample style="border: 1px solid black; text-align: center;"> 17 | |
| | | | MAX style="border: 1px solid black; text-align: center;"> 34 | |
| | | | MIN style="border: 1px solid black; text-align: center;"> 5 | |

| | NE1 | NE2 | S.Ent | SE1 | N.Ent | JBS Diff | Bay19 |
|-------------|-------------|-------------|------------|------------|------------|------------|------------|
| Sun | 10.6 | 10.0 | 1.3 | 8.5 | 1.4 | 4.6 | 1.9 |
| Sun | 10.2 | 9.7 | 1.4 | 8.0 | 1.3 | 4.6 | 1.8 |
| Mon | 9.8 | 9.2 | 1.3 | 8.2 | 1.7 | 4.6 | 1.6 |
| Mon | 11.2 | 10.6 | 1.5 | 8.7 | 1.7 | 4.6 | 1.5 |
| Tues | 10.5 | 9.8 | 1.3 | 8.0 | 1.4 | 4.5 | 1.9 |
| Tues | 10.9 | 10.3 | 1.2 | 8.2 | 1.6 | 4.6 | 1.9 |
| Wed | 11.7 | 11.0 | 1.2 | 9.2 | 1.4 | 4.6 | 1.8 |
| Wed | 12.0 | 11.3 | 1.4 | 9.2 | 1.4 | 4.6 | 1.5 |
| Thur | 11.2 | 10.6 | 1.3 | 8.9 | 1.5 | 4.6 | 1.8 |
| Thur | 11.2 | 10.7 | 1.3 | 8.9 | 1.6 | 4.6 | 1.8 |
| Fri | 12.0 | 11.4 | 1.2 | 8.3 | 1.4 | 4.6 | 1.7 |
| Fri | 11.6 | 11.0 | 1.5 | 8.1 | 1.4 | 4.6 | 1.8 |
| Sat | 11.9 | 11.3 | 1.4 | 8.4 | 1.4 | 4.6 | 1.7 |
| Sat | 11.9 | 11.3 | 1.4 | 8.4 | 1.5 | 4.6 | 1.7 |
| AVG: | 11.2 | 10.6 | 1.3 | 8.5 | 1.5 | 4.6 | 1.7 |

JDA Bird Counts: 5/26/19 to 6/1/19

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) | |
| 26-May | PHFB | 1 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 12 | 0 | 0 | 43 |
| 26-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 |
| 26-May | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26-May | PH2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 26-May | PH3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26-May | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26-May | SW2 | 9 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 26-May | SW3 | 25 | 79 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| Avg/Survey | | 60 | | 5 | | 0 | | 0 | | 0 | | 0 | | 1 | | 4 | | 17 | | 0 | | 172 |
| 27-May | PHFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 42 | 0 | 0 | 71 |
| 27-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27-May | PH1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 27-May | PH2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27-May | PH3 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| 27-May | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27-May | SW2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27-May | SW3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Avg/Survey | | 14 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 36 | | 0 | | 98 |
| 28-May | PHFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 30 | 0 | 0 | 69 |
| 28-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28-May | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28-May | PH2 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 28-May | PH3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 28-May | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28-May | SW2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 28-May | SW3 | 10 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| Avg/Survey | | 24 | | 0 | | 0 | | 0 | | 0 | | 0 | | 1 | | 0 | | 35 | | 0 | | 118 |
| 29-May | PHFB | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 3 | 0 | 0 | 50 |
| 29-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29-May | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29-May | PH2 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| 29-May | PH3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 29-May | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29-May | SW2 | 6 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 29-May | SW3 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| Avg/Survey | | 43 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 17 | | 0 | | 119 |

JDA Bird Counts: 5/26/19 to 6/1/19

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-May | PHFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 12 | 15 | 11 | 54 |
| 30-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-May | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-May | PH2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-May | PH3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-May | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30-May | SW2 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 30-May | SW3 | 7 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| Avg/Survey | | 24 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 14 | | 13 | | 101 |
| 31-May | PHFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 15 | 17 | 15 | 64 |
| 31-May | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31-May | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31-May | PH2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31-May | PH3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31-May | SW1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 31-May | SW2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31-May | SW3 | 19 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| Avg/Survey | | 23 | | 0 | | 0 | | 0 | | 0 | | 0 | | 10 | | 0 | | 16 | | 16 | | 129 |
| 1-Jun | PHFB | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 24 | 17 | 23 | 85 |
| 1-Jun | SWFB | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-Jun | PH1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-Jun | PH2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-Jun | PH3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1-Jun | SW1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 1-Jun | SW2 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| 1-Jun | SW3 | 7 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| Avg/Survey | | 24 | | 2 | | 0 | | 0 | | 0 | | 0 | | 6 | | 0 | | 21 | | 20 | | 143 |
| Totals | | Gulls | | | | Cormorant | | | | Caspian tern | | | | White Pelican | | | | Grebe | | | | Total |
| | | F | | NF | | F | | NF | | F | | NF | | F | | NF | | F | | NF | | |
| Weekly Total | | 420 | | 12 | | 0 | | 0 | | 0 | | 0 | | 33 | | 8 | | 309 | | 98 | | 880 |
| Avg/Survey | | 30 | | 1 | | 0 | | 0 | | 0 | | 0 | | 2 | | 1 | | 22 | | 7 | | 63 |

John Day Dam
Avian Zones

