

FISHWAY STATUS REPORT

Date: 3/14/2011
 Inspection Period: 3/6/2011 - 3/12/2011

THE DALLES DAM



**US Army Corps
of Engineers**
Portland District

The Dalles Project-Fisheries
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Fishways are inspected twice daily. Additional daily monitoring done via automation system in fisheries office.

| The Dalles Dam | Inspections | Criteria | Total Number of Inspections: | 15 | Temperature: | 39.0 | F |
|-----------------------------|-----------------|--------------|---|--------|--|------|-----|
| | Out of Criteria | Limit | Comments | | Secchi: | 5.2 | Ft. |
| NORTH FISHWAY | | | | | | | |
| Exit differential | 0 | ≤ 0.5' | North ladder returned to service on 2/28/11 | | | | |
| Count station differential | 0 | ≤ 0.3' | | | | | |
| Weir crest depth | 0 | 1.0' ± 0.1' | | | | | |
| Entrance differential | 0 | 1.0' - 2.0' | Average | 1.4 | Daily differentials & weir depths, see AVGS tab. | | |
| Entrance weir N1 | 0 | depth (≥ 8') | Average | 9.7 | | | |
| Entrance weir N2 | | Closed | Bulkhead installed | | | | |
| PUD Intake differential | 0 | ≤ 0.5' | 0.6' - small amount of debris on the intake rack. | | | | |
| EAST FISHWAY | | | | | | | |
| Exit differential | 0 | ≤ 0.5' | | | | | |
| Removable weirs 154-157 | 0 | Per forebay | Auto adjusts 1' increments. | | | | |
| Weir 158-159 differential | 0 | 1.0' ± 0.1' | | | | | |
| Count station differential | 0 | ≤ 0.3' | | | | | |
| Weir crest depth | 0 | 1.0' ± 0.1' | | | | | |
| Junction pool weir JP6 | 0 | depth (≥ 7') | Average | 14.4 | | | |
| East entrance differential | 4 | 1.0' - 2.0' | Average | 1.6 | Daily differentials & weir depths, see AVGS tab. | | |
| Entrance weir E1 | 0 | No criteria | Average | 10.0 | Manually adjusted. | | |
| Entrance weir E2 | 0 | depth (≥ 8') | Average | 10.7 | | | |
| Entrance weir E3 | 0 | depth (≥ 8') | Average | 10.7 | | | |
| Collection channel velocity | 0 | 1.5 - 4 fps | Average | 2.6 | See Velocities tab for more complete information. | | |
| West entrance differential | 1 | 1.0' - 2.0' | Average | 1.5 | OOC at 2.2' - Weirs were adjusted. | | |
| Entrance weir W1 | 0 | depth (≥ 8') | Average | 10.7 | | | |
| Entrance weir W2 | 0 | depth (≥ 8') | Average | 10.7 | | | |
| Entrance weir W3 | 0 | No criteria | Average | Closed | | | |
| South entrance differential | 0 | 1.0' - 2.0' | Average | 1.5 | Daily differentials & weir depths, see AVGS tab. | | |
| Entrance weir S1 | 6 | depth (≥ 8') | Average | 8.2 | Automation problem. Maintenance corrected. | | |
| Entrance weir S2 | 2 | depth (≥ 8') | Average | 9.0 | | | |
| JUVENILE PASSAGE | | | | | | | |
| Sluiceway operation | 0 | units 1,5,18 | Sluiceways 1-2, 1-3, 18-1, and 18-2 open for adult kelt passage through March | | | | |
| Turbine trashrack drawdown | | <1.5', wkly | | | | | |
| Spill volume | | 40%, 24hr | | | | | |
| Spill Pattern | | per FPP | | | | | |
| Turbine Unit Priority | 0 | per FPP | | | | | |
| Turbine 1% Efficiency | 0 | per FPP | | | | | |

OTHER ISSUES:

THE DALLES

Birds: Low numbers of coots and cormorants around the project. See bird tab below for detailed information.

Contractors LanPacific to start installation of anchor poles in spillway tailrace on BRZ island and north shore starting Mar14. USDA will install avian lines to these poles and some locations over sluiceway/powerhouse tailrace Apr7. Signs will be installed along south shore tirbal fishing area to alert fishermen of avian line location and purpose.

Pikeminnow: Dam angling preseason planning meeting scheduled for Apr21. Pacific States Marine Fish Commission will manage and Washington Dept of Fish and Wildlife will provide field crews. Fishing will start late spring.

Project fisheries will conduct stomach samples of bycatch bass, catfish and walleye to collect data for consumption rate comparison.

Operations:

North fish ladder returned to service on February 28th. The PUD turbine remained in by-pass until March 3rd. Entrance remained in criteria Sluiceway open for kelt passage through March with 4 gates open. April 1 will go to 6 gates open for juvenile passage per FPP. Sluiceway gates on east and west closed for 1/2 day each for ROV inspection if turbine trashrack.

Maintenance:

The north count station diffuser was fixed on 3/2/11.

Turbine trashracks inspected via ROV Mar 8 and 9 for debris accumulation. With exception of 2 small sticks, no other debris found (as expected)

Studies:

East fishway reliability study - project engineering planning fishlock flush of 18" line to clear of mud. Flush will be into culdesac. Also exploring option of using turbine equalizing water source from turbine gallery.

Research/Contractors:

Battelle prepared for JSAT research and monitoring turbine passage for adults. Fenton Kahn met with project staff to inform of work plan.

ODFW planning for BRZ electroshock collection of pikeminnow/bass. Ongoing research from past seasons.

WDFW fish counter prework meeting at Bonneville Mar15.

FFU avian observation planned. Prework meeting date to be determined.

Potential tribal sturgeon collection for broodstock program from project. Premeeting date to be determined.

USFWS lamprey passage monitoring camera mounts installed at count stations inside pickets. Cameras not installed yet.

Approved by;
 Ron D. Twiner
 Operation Project Manager
 The Dalles Dam

The Dalles Dam Maximum Daily Bird Observations

Washington Shore

SW-T1: No Birds

SW-T3: 0-13 cormorant and 0-10 gull rest on rocks

SW-T4: No birds.

FB1: 1-17 cormorants resting on debris boom, 0-2 gulls resting on dam, 0-3 gulls active, 0-1 eagle

SW-T2: Five scaups resting

PH-T1: one cormorant

PH-T2: 0-2 gull flyby

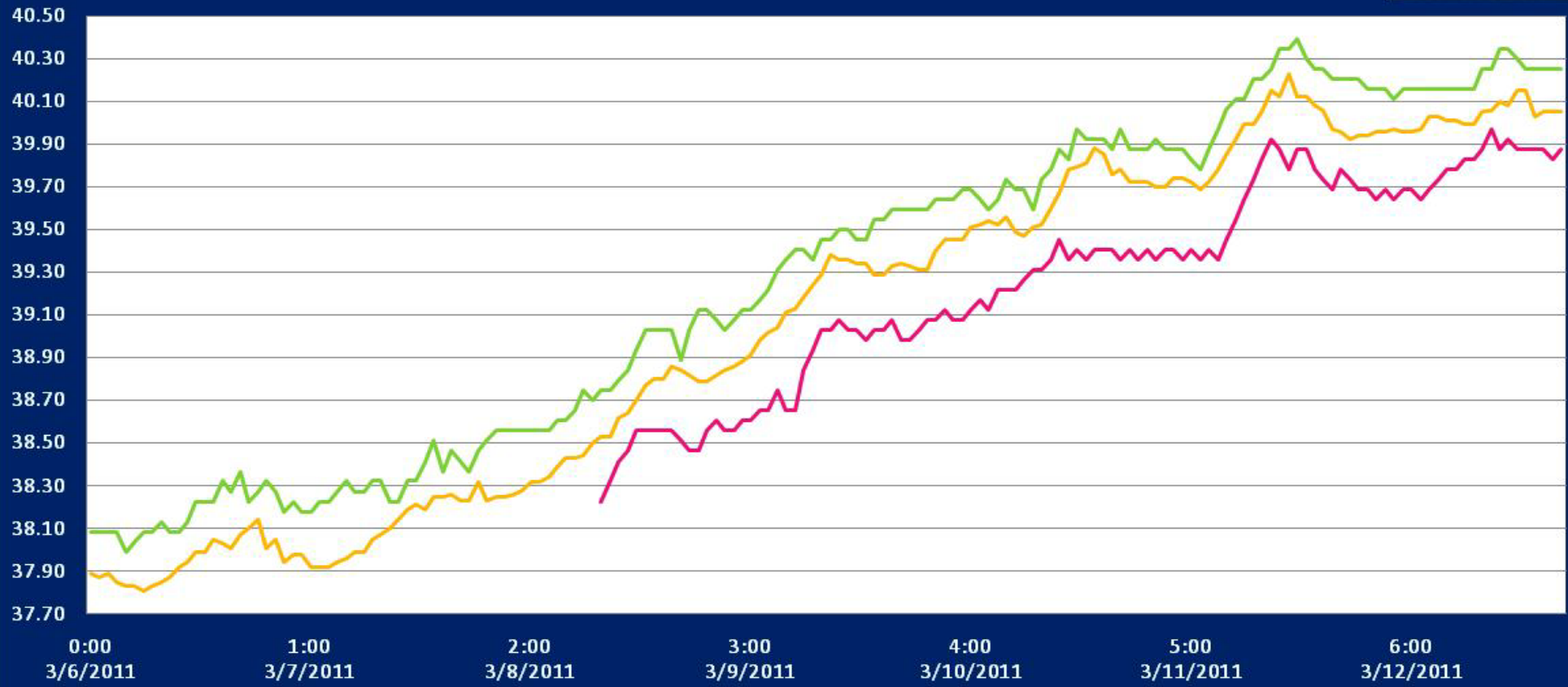
PH-T3: No birds.

Oregon Shore

Deg F

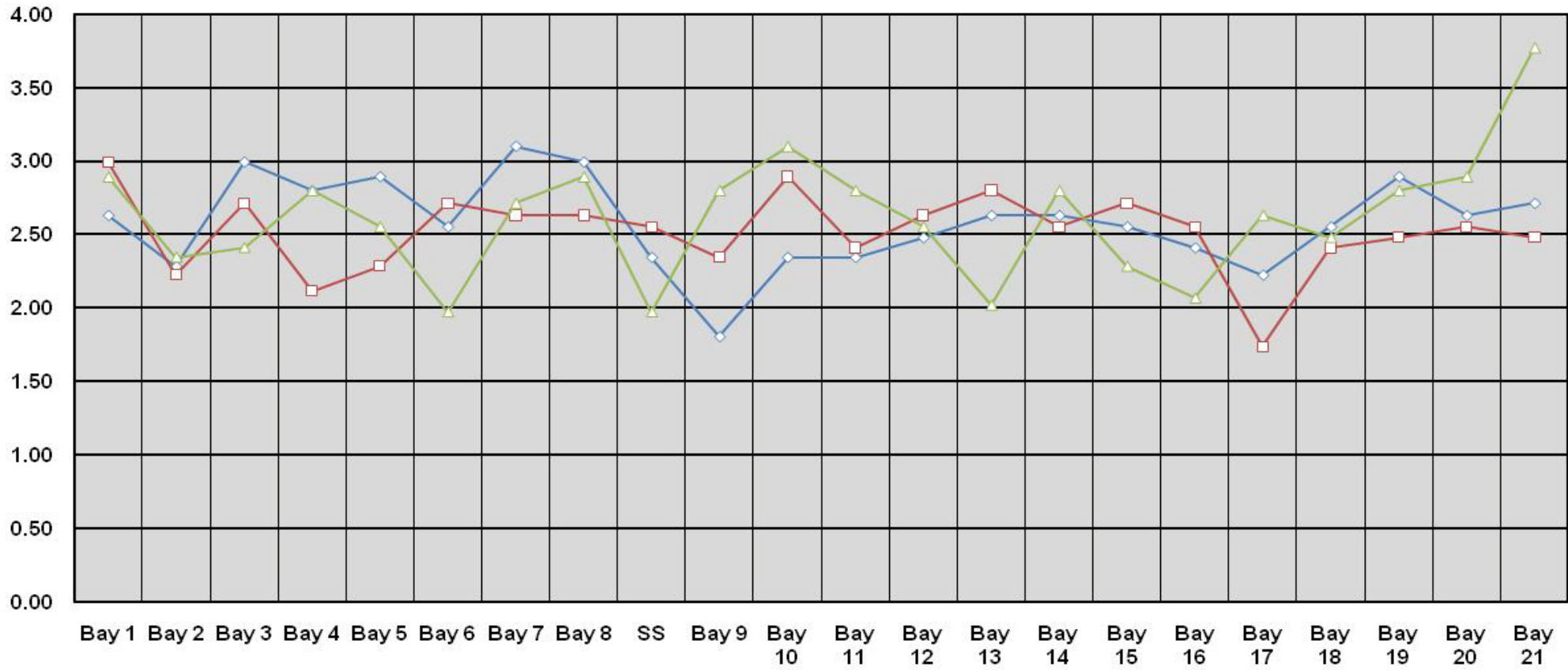
The Dalles River/Water Temperatures

- East Fish Ladder
- North Fish Ladder
- USGS Tailwater



The Dalles Dam Collection Channel Velocities (fps)

3/7/11 3/8/11 3/9/11



| Temp: | | | Secchi: | |
|-------|------|------|---------|-----|
| | 37.9 | SUN | | 5.0 |
| | 38.1 | MON | | 6.0 |
| | 38.6 | TUES | | 6.0 |
| | 39.2 | WED | | 5.0 |
| | 39.6 | THUR | | 4.5 |
| | 39.9 | FRI | | 5.0 |
| | 40.0 | SAT | | 5.0 |
| AVG: | 39.0 | AVG: | | 5.2 |

The Dalles Dam Daily Readings and Averages for Temperatures, Secchi, Entrances, and Spill

| Date: | North Fish Ladder | | East Fish Ladder | | | | | | | | | | | % Spill |
|-------------|-------------------|----------|------------------|---------|----------|----------|------|---------------|---------|----------|----------------|--------------|----------|----------|
| | North Entrance | | East Entrance | | | | | West Entrance | | | South Entrance | | | |
| | Differential | N1 Depth | Differential | E1Depth | E2 Depth | E3 Depth | JP 6 | Differential | W1Depth | W2 Depth | W3 Depth | Differential | S1 Depth | S2 Depth |
| 6-Mar | 1.4 | 9.6 | 1.6 | 12.1 | 12.1 | 12.1 | 13.8 | 1.5 | 10.0 | 10.1 | Closed | 1.5 | 8.6 | 8.2 |
| 6-Mar | 1.3 | 9.7 | | 11.9 | 11.9 | 12.0 | 12.7 | 1.4 | 9.9 | 10.0 | | 1.6 | 7.7 | 7.7 |
| 6-Mar | | | | 12.0 | 12.1 | 12.1 | | 1.4 | 10.1 | 10.0 | | 1.5 | 7.8 | 8.1 |
| 7-Mar | 1.4 | 9.6 | 1.5 | 11.9 | 12.0 | 11.9 | 16.5 | 2.0 | 10.0 | 10.0 | | 1.8 | 8.1 | 8.5 |
| 7-Mar | 1.4 | 9.7 | | 12.0 | 12.1 | 11.9 | 15.9 | 1.3 | 11.2 | 11.3 | | 1.4 | 8.8 | 9.5 |
| 7-Mar | | | | | | | | | | | | | | |
| 8-Mar | 1.4 | 9.7 | 1.8 | 12.4 | 12.2 | 12.4 | 15.6 | 1.7 | 10.6 | 10.5 | | 1.6 | 8.5 | 9.5 |
| 8-Mar | 1.3 | 9.7 | 1.7 | 9.0 | 8.9 | 9.0 | 12.1 | 1.1 | 11.0 | 11.0 | | 1.7 | 5.3 | 9.4 |
| 8-Mar | | | | | | | | | | | | | | |
| 9-Mar | 1.3 | 9.7 | 2.4 | 9.0 | 11.4 | 11.4 | 14.4 | 1.8 | 9.9 | 10.1 | | 1.8 | 7.1 | 7.1 |
| 9-Mar | 1.4 | 9.8 | 1.6 | 9.0 | 11.1 | 11.0 | 14.9 | 1.7 | 10.6 | 10.6 | | 1.6 | 7.9 | 9.5 |
| 9-Mar | | | | | | | | | | | | | | |
| 10-Mar | 1.4 | 9.7 | 2.7 | 9.1 | 12.6 | 12.6 | 14.6 | 1.3 | 11.6 | 11.6 | | 1.4 | 7.6 | 10.6 |
| 10-Mar | 1.4 | 9.6 | 0.9 | 12.3 | 12.5 | 12.5 | 14.3 | 1.0 | 11.5 | 11.5 | | 1.2 | 7.5 | 11.5 |
| 10-Mar | | | | | | | | | | | | | | |
| 11-Mar | 1.3 | 9.8 | 1.3 | 9.0 | 9.0 | 9.0 | 14.1 | 1.8 | 10.0 | 10.0 | | 1.7 | 8.2 | 8.2 |
| 11-Mar | 1.4 | 9.6 | 1.4 | 9.1 | 9.1 | 9.1 | 14.6 | 1.5 | 10.9 | 11.1 | 1.6 | 8.9 | 9.0 | |
| 11-Mar | | | 1.3 | 9.0 | 9.0 | 9.0 | | 1.5 | 11.0 | 11.0 | 1.4 | 9.0 | 9.1 | |
| 12-Mar | 1.3 | 9.8 | 1.3 | 6.0 | 8.2 | 8.3 | 14 | 1.5 | 10.5 | 10.6 | 1.5 | 9.6 | 9.5 | |
| 12-Mar | 1.3 | 9.7 | 1.6 | 5.9 | 8.4 | 8.4 | 14.5 | 1.6 | 11.1 | 11.1 | 1.7 | 9.0 | 9.0 | |
| 12-Mar | | | 0.9 | 9.5 | 9.5 | 9.5 | | 0.9 | 11.5 | 11.4 | 1.1 | 9.2 | 9.3 | |
| AVG: | 1.4 | 9.7 | 1.6 | 10.0 | 10.7 | 10.7 | 14.4 | 1.5 | 10.7 | 10.7 | Closed | 1.5 | 8.2 | 9.0 |

Third fish way inspection for east fish ladder, east, west, and south entrances completed via automation system in fisheries office.



ROV inspection of turbine trashracks for debris accumulation