

# The Dalles Dam Fishway Status Report

Date: 01/26/2014  
 Inspection Period: 01/19/2014-01/25/2014

## THE DALLES DAM



**US Army Corps  
 of Engineers**  
 Portland District

The Dalles Project-Fisheries  
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Fishways are inspected once daily during the winter.

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 7	Temperature: 39.8 F
			Comments	Secchi: 5.5 feet
<b>NORTH FISHWAY</b>			North fishway dewatering scheduled for Feb4.	
Exit differential	0	≤ 0.5'		
Count station differential	0	≤ 0.3'		
Weir crest depth	0	1.0' ± 0.1'		
Entrance differential	0	1.0' - 2.0'	Average 1.4	
Entrance weir N1	0	depth (≥ 8')	Average 9.2	
Entrance weir N2		Closed	Bulkhead installed.	
PUD Intake differential	0	≤ 0.5'		
<b>EAST FISHWAY</b>			East Fishway dewatered for annual maintenance. Possible return next week.	
Exit differential		≤ 0.5'		
Removable weirs 154-157		Per forebay		
Weir 158-159 differential		1.0' ± 0.1'		
Count station differential		≤ 0.3'		
Weir crest depth		1.0' ± 0.1'		
Junction pool weir JP6		depth (≥ 7')		
East entrance differential		1.0' - 2.0'		
Entrance weir E1		No criteria		
Entrance weir E2		depth (≥ 8')		
Entrance weir E3		depth (≥ 8')		
Collection channel velocity		1.5 - 4 fps		
Transportation channel velocity		1.5 - 4 fps		
North channel velocity		1.5 - 4 fps		
South channel velocity		1.5 - 4 fps		
West entrance differential		1.0' - 2.0'		
Entrance weir W1		depth (≥ 8')		
Entrance weir W2		depth (≥ 8')		
Entrance weir W3		No criteria		
South entrance differential		1.0' - 2.0'		
Entrance weir S1		depth (≥ 8')		
Entrance weir S2		depth (≥ 8')		
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	units 1 & 18	End gate closed; 2 sluiceways open to forebay.	
Turbine trashrack drawdown		<1.5', wkly	No unit priority for winter	
Spill volume		40%, 24hr		
Spill Pattern		per FPP		
Turbine Unit Priority		per FPP		
Turbine 1% Efficiency		per FPP		

**OTHER ISSUES:****Birds/Sea lions:**

Bird observation data collected once daily. Up to 39 eagles foraging/roosting at Westick park. Great blue herons scavenging on shad carcasses below roosting trees. See avian zones map and distribution details.

**Operations:**

North fishway in full operation. Sluiceway closed through Feb28. No unit priority.  
East fishladder watered up Jan 22. Fish unit return next week.

**Current Outages:**

Transformer 8 (MU15 & MU16) de-rated to single unit full load ops through 9/14/2017.  
Fish Unit 1 out Dec 2 to Feb 3 for Annual maintenance  
Fish unit 2 outage scheduled for Dec 2 to Feb 3 for overhaul and Digital Governor install.  
TA out Jan13 to Feb3 '14 for Doble testing.  
Station Service 02 out Jan21 to Feb27 '14 for Digital Governor Upgrade  
Main Unit 4 out Jan21 to Feb27 '14 for overhaul.

**Maintenance:**

All planned east fishway winter maintenance completed.  
Work list completed; west entrance diffuser grating attachment, exit weir 159 rehab, count station window brush repair, exit deck drains/leak repair, and all routine preventative maintenance on entrance weirs, exit weirs and count station equipment.  
Plans underway to build new weir to replace 158 or 159 next year. Elevating priority of east fishway dewatering pump upgrades due to recent discovered electrical conduit failures.  
North fishway scheduled dewatering Feb4. Planned maintenance; vegetation removal from fishladder walls, assess fishladder rock wall integrity.

**Studies:**

**PIT** - Temporary Thin Wall PIT tag antennas at count stations in operation. PSMFC investigating feasibility of PIT antenna in sluiceway channel. PSMFC sent proposal to BPA Dec13.  
**EFL** - Plan includes 10' dia. pipe through dam to AWS conduit under east fishladder and 5' intake pier-noses with trashracks. Construction start winter '14/'15. ROV inspection of planned caisson location in forebay completed Jan14.  
**PUD** - Modification of original FERC license underway for additional north turbine. No new developments.  
**Lamprey** - Plating mods in lower east weirs completed early. Final inspection completed Jan8.

**Research/Contractors:**

Normandeau and Corps personnel site visit Jan 23 to inspect fish counting equipment and work areas in preparation for the April 1 start of the counting season.  
University of Idaho in overwintering steelhead portion of their study. Planning underway to improve 2 antenna power sources for OSHA compliance.  
Univ of Idaho two activities: 1) maintaining/downloading adult salmonid radio receivers and 2) maintaining/downloading lamprey half-duplex PIT receivers.  
Removal last set of 3 derelict Vertical Barrier Screens (VBS) from MU 12 gatewell slot scheduled week of Aug11. CRFM funding support expected.  
Planning for dive removal of remaining pier nose USGS antennas week of Feb19-21 with Feb25-26 as backup. JSAT pipes removal next year.  
USFWS camera equipment for lamprey monitoring at east count station removed. North count station equipment removal in Feb.  
Portland District FFDRWG meeting scheduled for Feb6.

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

# The Dalles Dam Avian Zones

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

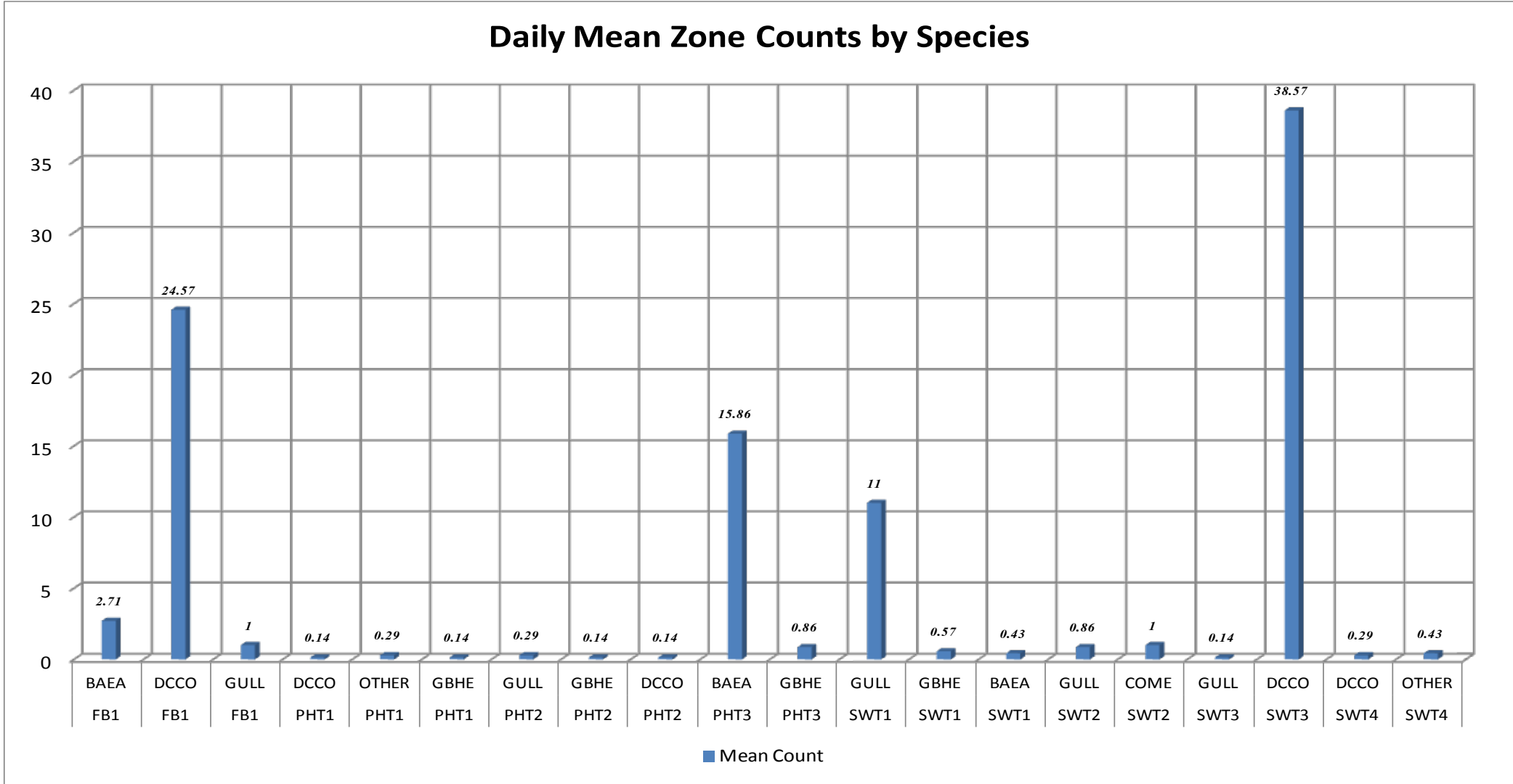
SW-T2

SW-T4

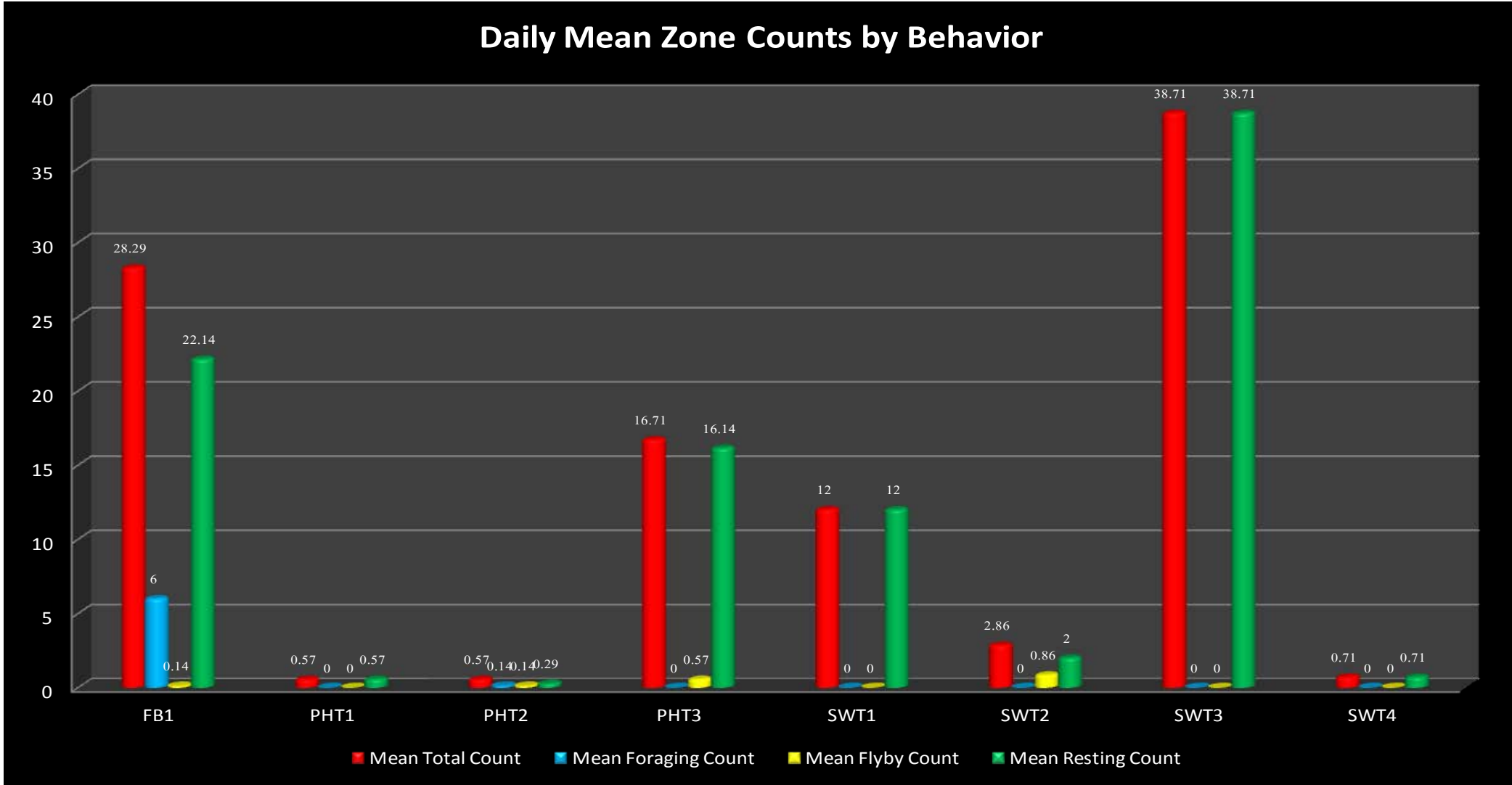
SW-T5

Oregon Shore

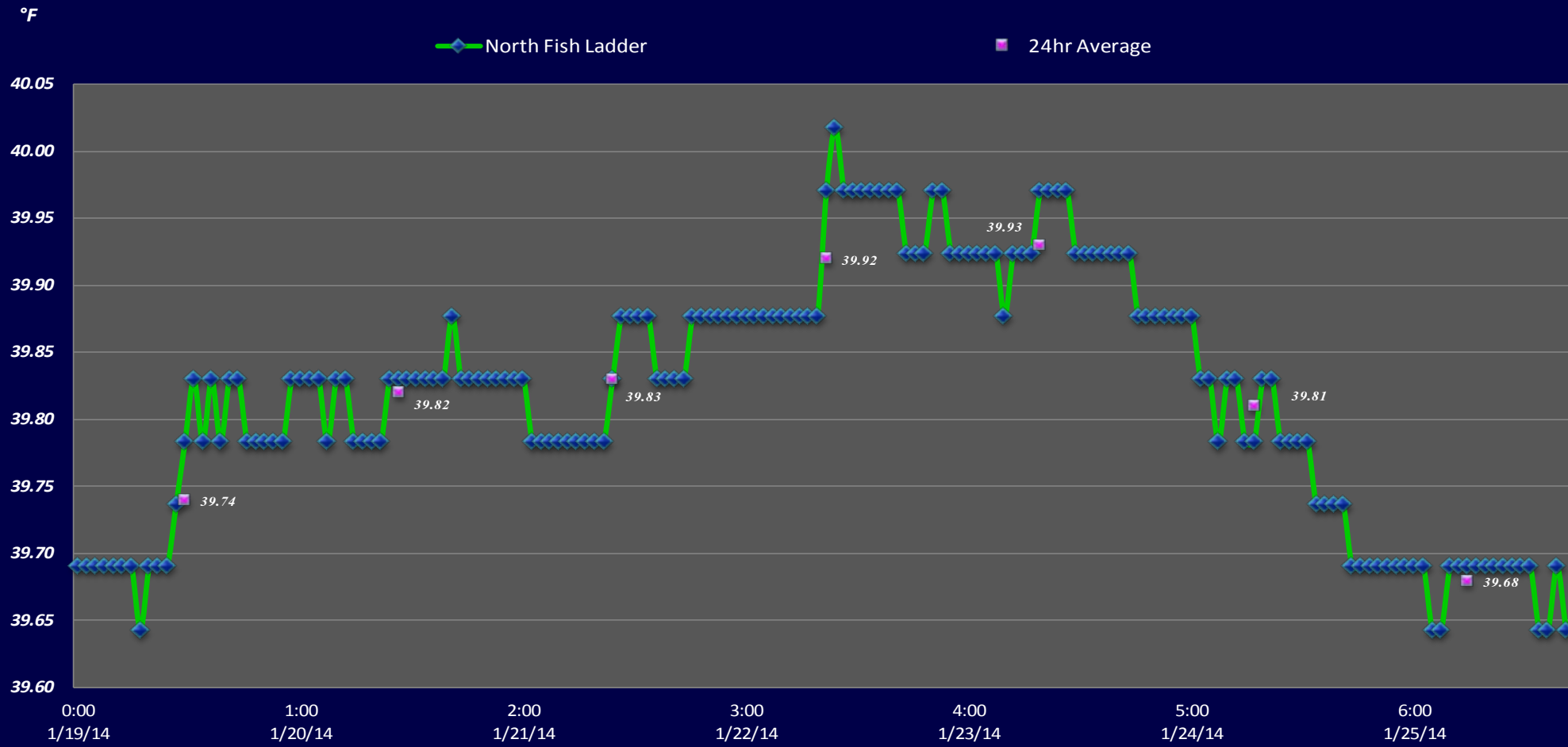




BAEA - Bald Eagle; COME - Common Merganser; DCCO - double crested cormorant; GBHE - Great Blue Heron; GREBE - Grebe; Gull- Gull (all species)



# The Dalles Dam North Adult Fish Ladder River/Water Temperatures



Temp:		Secchi:	
	39.74	SUN	5.5
	39.82	MON	5.5
	39.83	TUES	5.5
	39.92	WED	5.5
	39.93	THUR	5.5
	39.81	FRI	5.5
	39.68	SAT	5.5
AVG:	39.8	AVG:	5.5

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

= out of criteria

North Fish Ladder			East Fish Ladder											S P I L L  O N  S E A L	
North Entrance			East Entrance					West Entrance				South Entrance			
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth		S2 Depth
19-Jan-14	1.4	9.1													
20-Jan-14	1.4	9.2													
21-Jan-14	1.4	9.1													
22-Jan-14	1.4	9.1													
23-Jan-14	1.3	9.3													
24-Jan-14	1.4	9.2													
25-Jan-14	1.3	9.2													
<b>AVG:</b>	<b>1.4</b>	<b>9.2</b>									closed				



Rehabbed 159 weir with new wheels. Seals also replaced, but not visible in this pic.