

The Dalles Dam Fishway Status Report

Date: 02/02/2014
 Inspection Period: 01/26/2014-02/01/2014

THE DALLES DAM



**US Army Corps
of Engineers**
Portland District

The Dalles Project-Fisheries
 P.O. Box 564
 The Dalles, OR 97058-9998
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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: 39.4 F
			Comments	Secchi: 5.7 feet
NORTH FISHWAY			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'		
EAST FISHWAY			East Fishway dewatered for annual maintenance. RTS on 02/03/14.	
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')		
JUVENILE PASSAGE				
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. Fewer 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 Feb 28. No unit priority.
East fishladder watered up Jan 22. Fish unit return on Feb 3.

Current Outages:

Transformer 8 (MU15 & MU16) de-rated to single unit full load ops.
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 pending funding, east fishway dewatering pump upgrades and modify east east entrance dewatering bulkheads for better fit.
North fishway scheduled dewatering Feb4. Planned maintenance; vegetation removal from fishladder walls, assess fishladder rock wall integrity.
PUD inspect auxiliary water system.
Fish unit breaker as-built drawings to be completed during Feb, requiring 3 day outage for each unit. Other unit will be online at maximum discharge.

Studies:

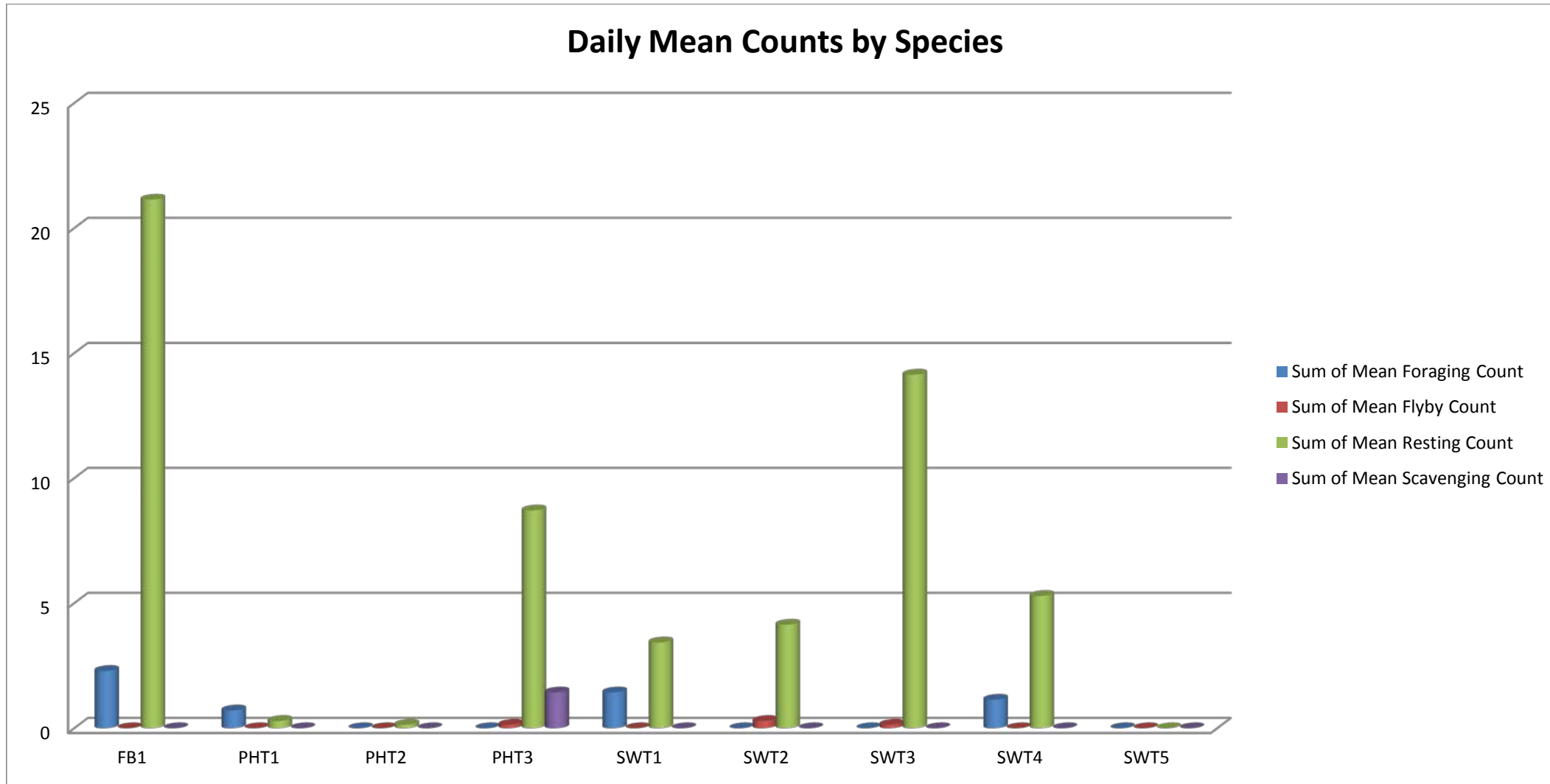
PIT - Skewed thin Wall PIT tag antenna at north count stations will not be adjusted. It has high efficiency and would be adjusted for only aesthetics.
PSMFC investigating potential sluiceway antenna. Awaiting BPA comment.
EFL - Plan includes 10' dia. pipe through dam to AWS conduit under east fishladder. Construction start next winter.
PUD - FERC license modification request submitted for additional north turbine.
Lamprey - Plating mods in lower east weirs completed. No additional fishladder mods planned for this winter.

Research/Contractors:

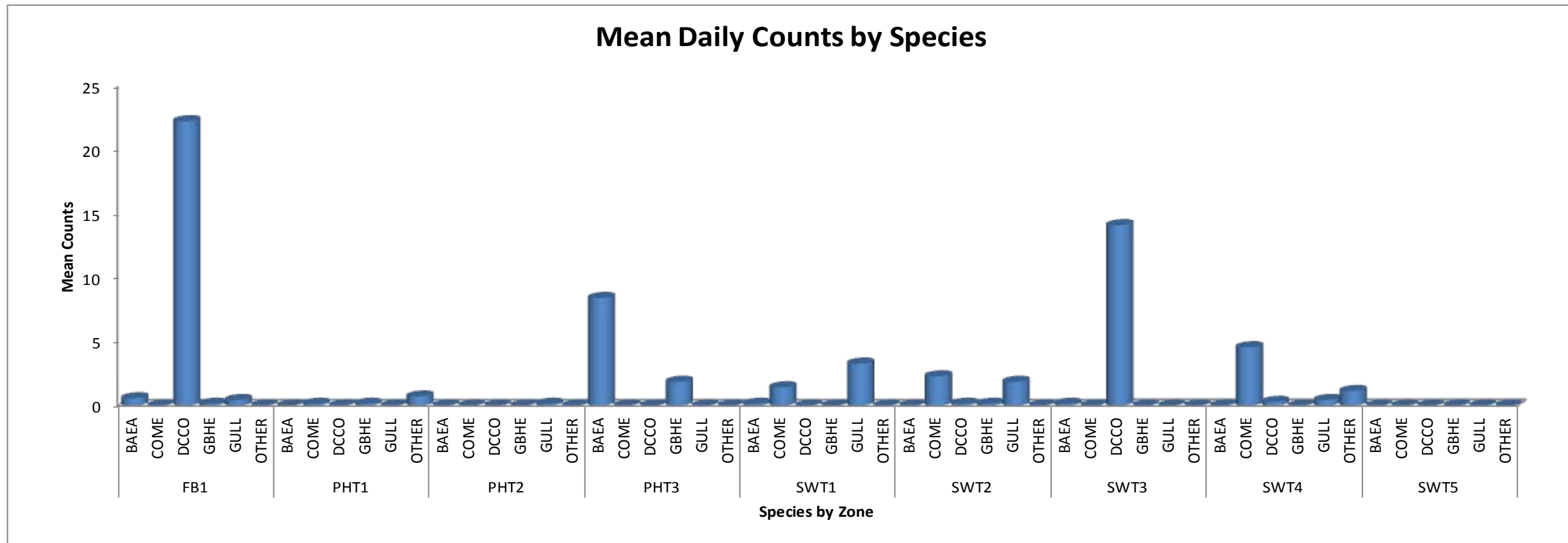
USFWS camera equipment for lamprey monitoring at east count station removed. North count station equipment removal in Feb.
Portland District FFDRWG meeting scheduled for Feb6.
University of Idaho installing 2 solar powered antennas on powerhouse.
Planning for dive removal of remaining pier nose USGS antennas week of Feb19-21 with Feb25-26 as backup. JSAT pipes removal next year.
Removal last set of 3 derelict Vertical Barrier Screens (VBS) from MU 12 gatewell slot scheduled week of Aug11. Pending CRFM funding.

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

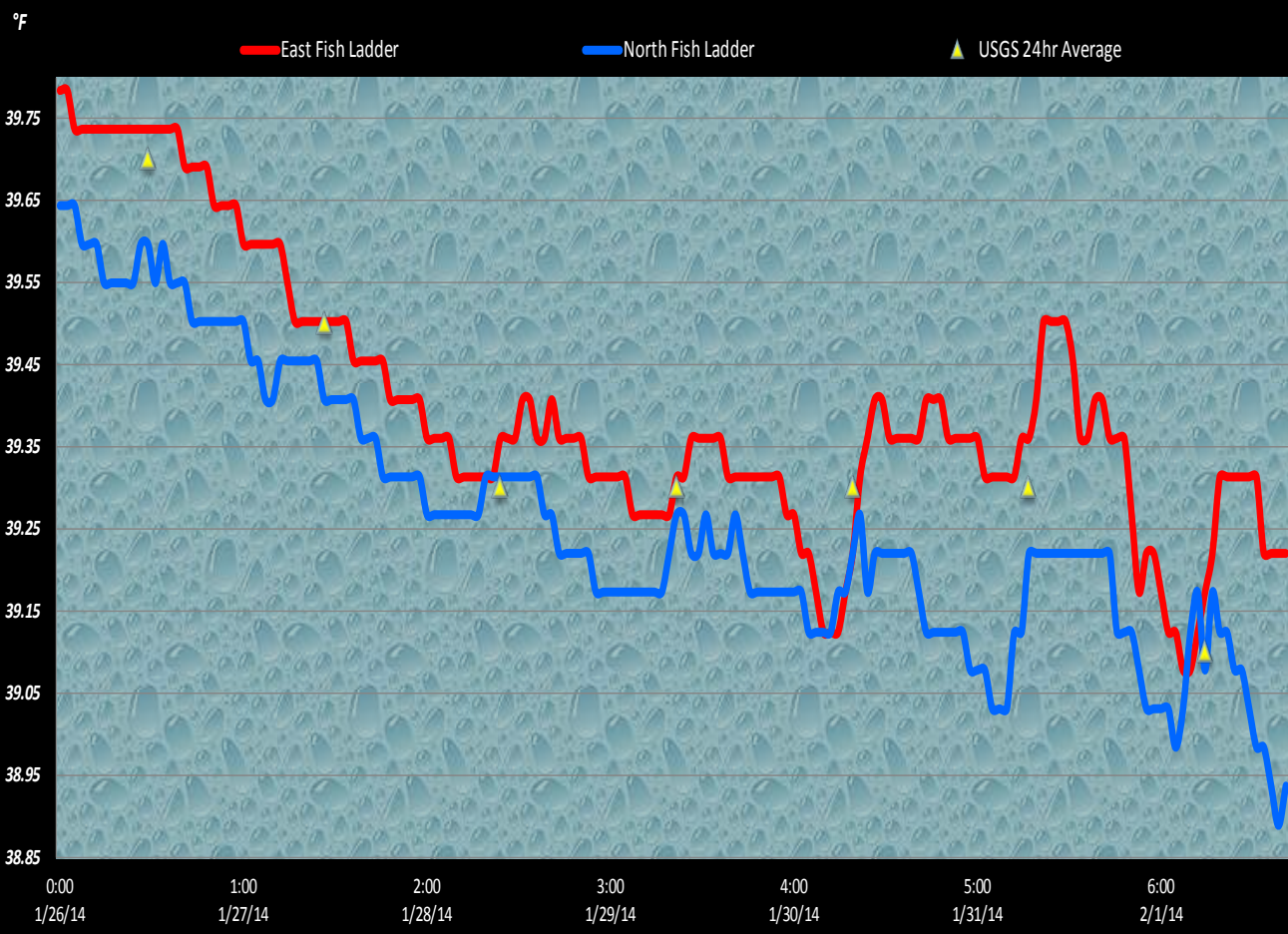




BAEA - Bald Eagle; COME - Common Merganser; DCCO - double crested cormorant; GBHE - Great Blue Heron; GREBE - Grebe; Gull- Gull (all species)



The Dalles Dam Adult Fish Ladder(s) River/Water Temperatures



Temp:		Secchi:	
	39.7	SUN	6.0
	39.5	MON	6.0
	39.3	TUES	6.0
	39.3	WED	6.0
	39.3	THUR	6.0
	39.3	FRI	5.0
	39.1	SAT	5.0
AVG:	39.4	AVG:	5.7

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
26-Jan-14	1.4	9.1													
27-Jan-14	1.4	9.2													
28-Jan-14	1.4	9.2													
29-Jan-14	1.4	9.1													
30-Jan-14	1.4	9.1													
31-Jan-14	1.4	9.2													
1-Feb-14	1.4	9.2													
AVG:	1.4	9.2									closed				



Failed collection channel dewatering pump. Requires new power conduit and screen.
Remaining 8 pumps will be removed and inspected for similar problems next winter as funding allows.