

The Dalles Dam Fishway Status Report

Date: 02/09/2014
 Inspection Period: 02/02/2014-02/08/2014

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	Criteria	Total Number of Inspections:	7	Temperature:	37.8 F
	Out of Criteria	Limit	Comments		Secchi:	5.5 feet
NORTH FISHWAY			North fishladder dewatered Feb 4			
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	1.5		
Entrance weir N1	0	depth (≥ 8')	Average	9.1		
Entrance weir N2		Closed	Bulkhead installed.			
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY			East Fishway dewatered for annual maintenance. Returned Feb 3.			
Exit differential		≤ 0.5'	Automation adjustment problems with exit weirs 154-159			
Removable weirs 154-157	1	Per forebay				
Weir 158-159 differential	4	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')				
East entrance differential	1	1.0' - 2.0'				
Entrance weir E1	none	No criteria				
Entrance weir E2	none	depth (≥ 8')				
Entrance weir E3	closed	depth (≥ 8')				
Collection channel velocity		1.5 - 4 fps	One fish unit operation.			
Transportation channel velocity		1.5 - 4 fps				
North channel velocity		1.5 - 4 fps				
South channel velocity		1.5 - 4 fps				
West entrance differential	3	1.0' - 2.0'				
Entrance weir W1	1	depth (≥ 8')				
Entrance weir W2	4	depth (≥ 8')				
Entrance weir W3	closed	No criteria				
South entrance differential	6	1.0' - 2.0'				
Entrance weir S1	6	depth (≥ 8')				
Entrance weir S2	7	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 dewatered Feb 4. Eighteen lamprey and 5 juvenile steelhead removed and released to river. One lamprey and 2 juvenile steelhead mortalies found stranded the following day.

East fishladder returned to service Jan 22. Fish unit F1 return on Feb 3.

Sluiceway closed through Feb 28.

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. Experiencing intermittent return problems.

Fish unit F2 out Feb 11-13 and F1 out Feb 18-20 for as built documentation and future upgrade planning. One fish unit operation during these outages.

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.

East fishway work completed; west 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 planned maintenance; vegetation removal from fishladder walls, assess fishladder rock wall integrity and preventative maintenance of count station and entrance weirs. Entrance dewatering below tailwater postponed to next winter due to pump motor problems.

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 corrected, since it has high operational efficiency.

PSMFC investigating potential sluiceway antenna. Awaiting BPA comment.

EFL - Plan involves 10' dia. pipe through dam, under roadway and into AWS conduit under east fishladder. Construction start winter '15.

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. Workshop and tour at Bonn next week.

Research/Contractors:

USFWS lamprey camera equipment in north count station equipment removal in Feb.

Portland District FFDRWG meeting scheduled for Feb6.

University of Idaho installed a solar powered antenna on powerhouse. Second to be installed this month.

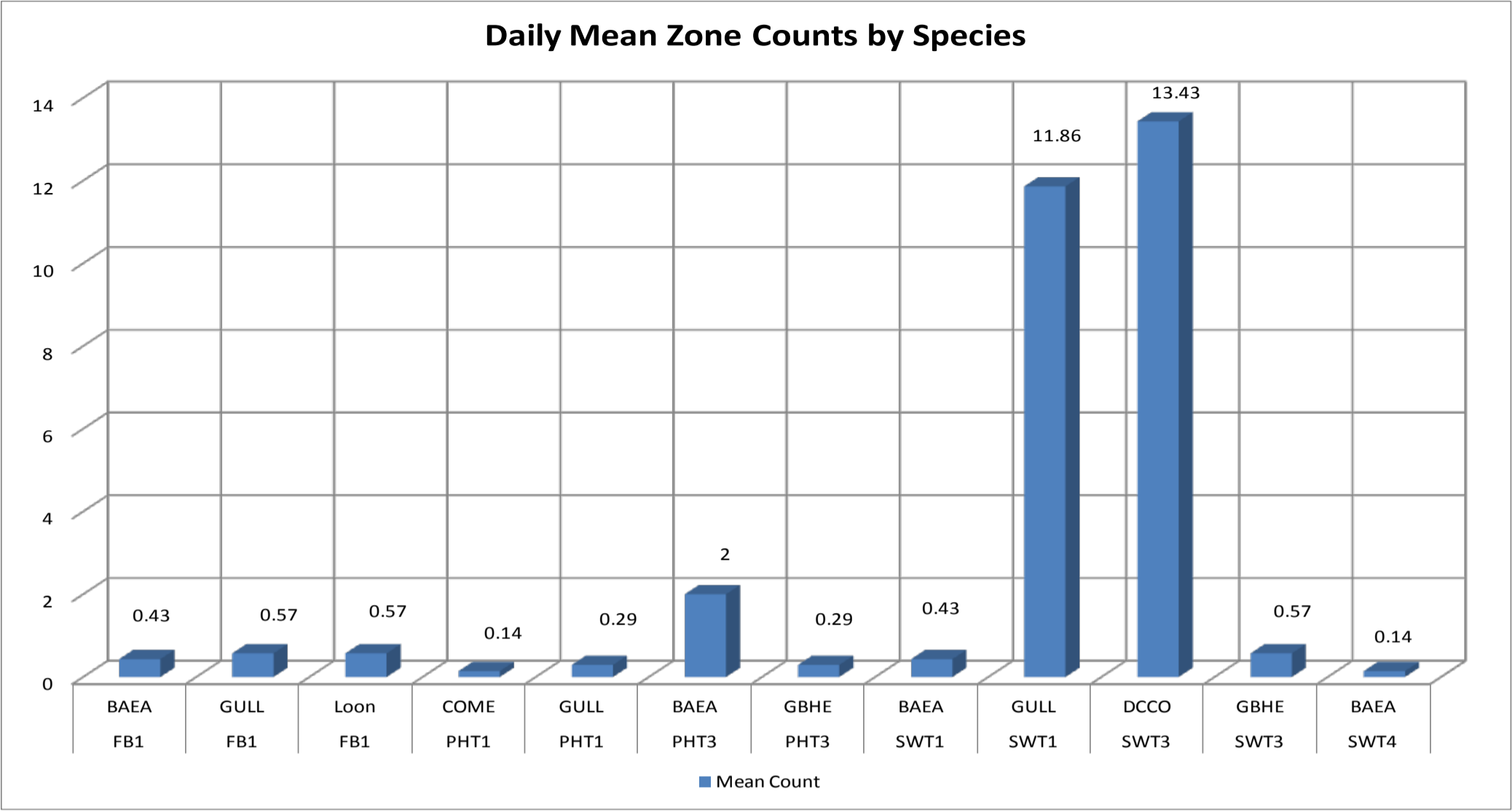
Planning for dive removal of remaining pier nose USGS antennas Feb19-21 (Feb25-26 as backup). JSAT pipes removal postponed to next year.

USGS to remove antenna plates from forebay deck peir noses after dive operations.

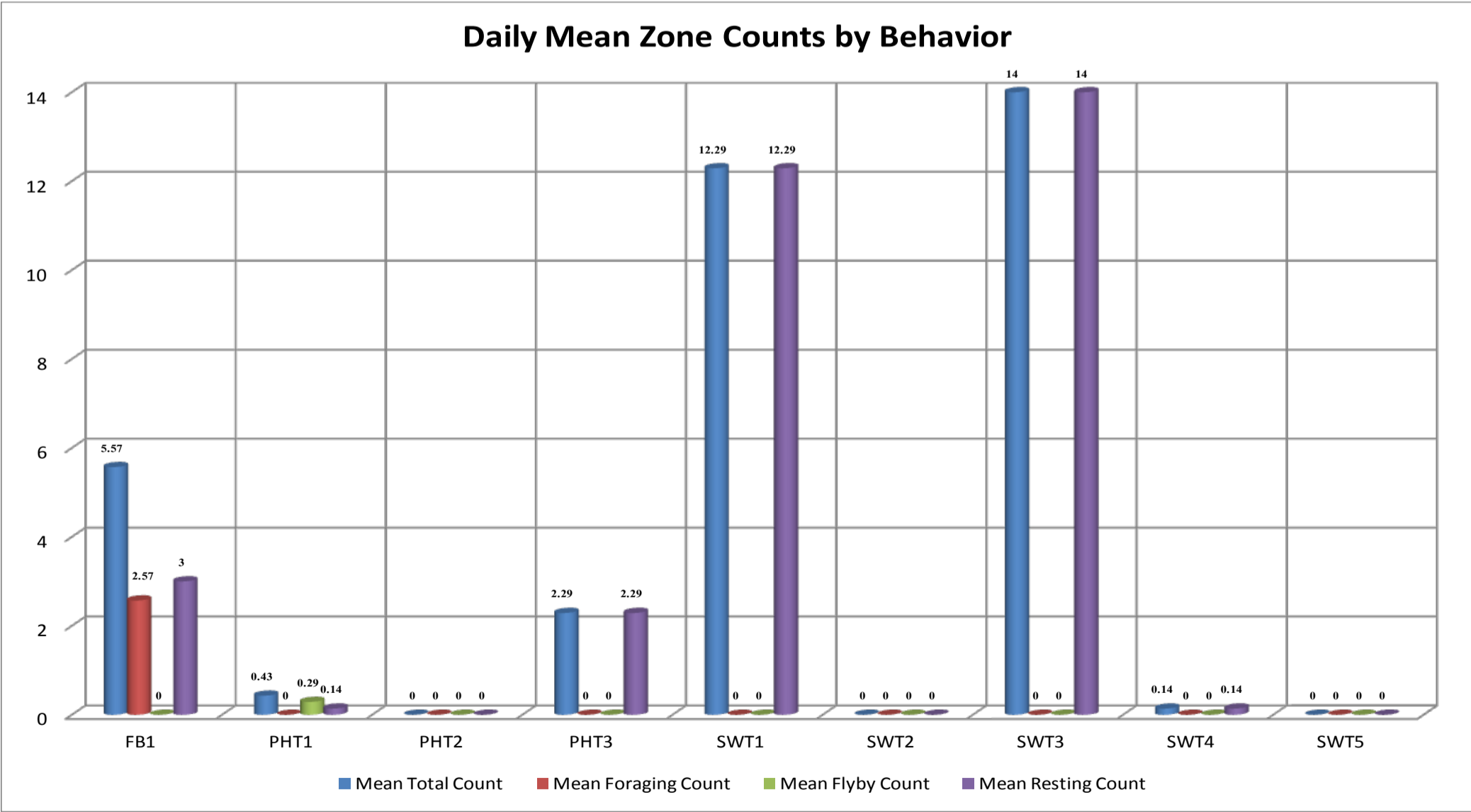
Removal last set of 3 derelict Vertical Barrier Screens (VBS) from MU 12 gatewell slot scheduled week of Aug11. Pending CRFM funding.

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

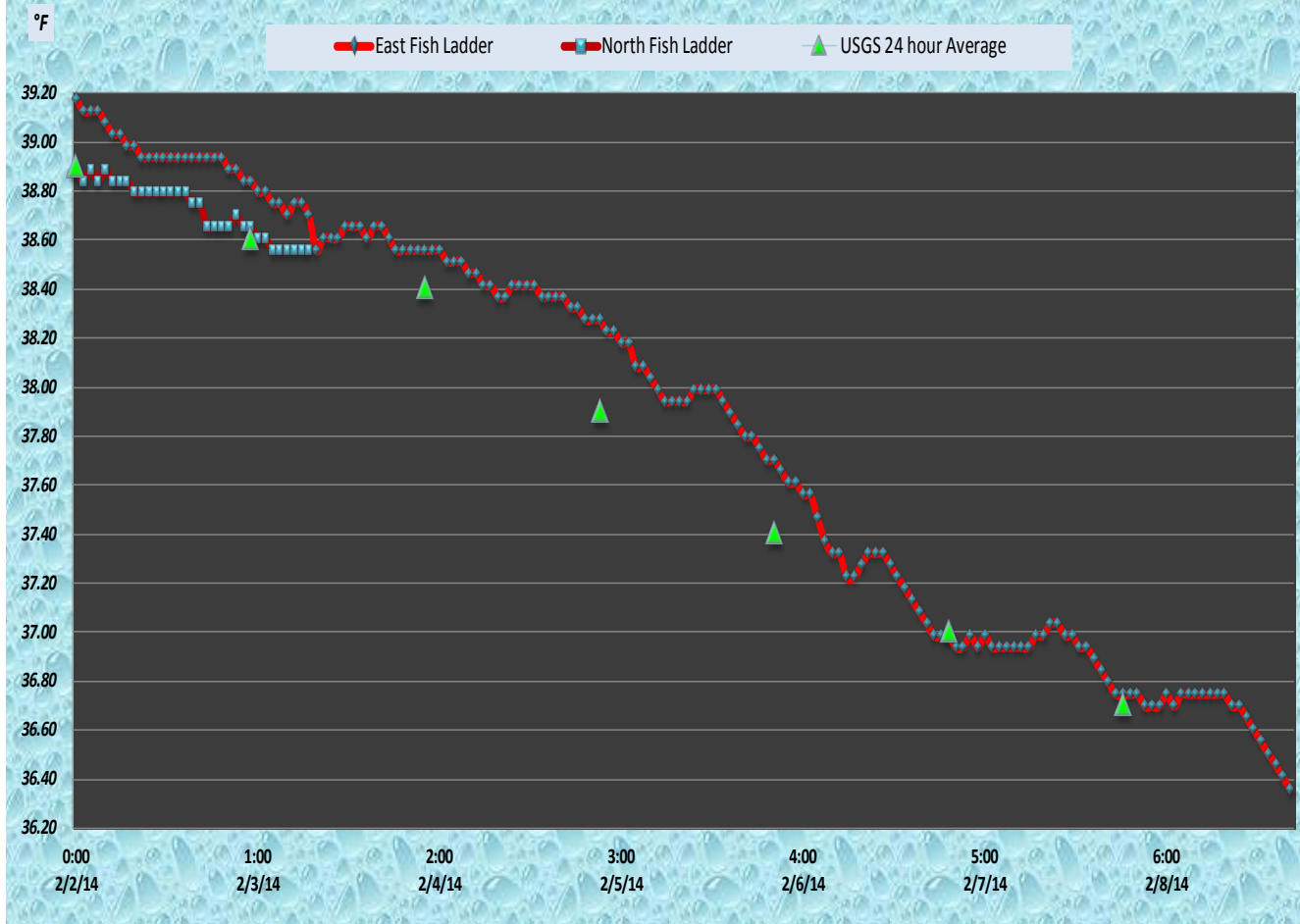




BAEA - Bald Eagle; COME - Common Merganser; DCCO - double crested cormorant; GBHE - Great Blue Heron; GREBE - Grebe; Gull- Gull (all species)



The Dalles Dam Adult Fish Ladder River/Water Temperatures



Temp:		Secchi:	
	38.9	SUN	5.5
	38.6	MON	5.5
	38.4	TUES	5.5
	37.9	WED	5.5
	37.4	THUR	5.5
	37.0	FRI	5.5
	36.7	SAT	5.5
AVG:	37.8	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	
2-Feb-14	1.5	9.1												
3-Feb-14			1.0		8.1	8.1	9.1	1.3		8.7		1.5		8.0
4-Feb-14			1.1		8.2	8.2	8.2	0.7	8.1	8.1		0.7		7.9
5-Feb-14			1.1		8.0	8.0	8.9	0.9	8.1	6.0		1.0		7.9
				3.6	11.8	11.8	9.3		8.1	8.1			8.0	8.1
6-Feb-14			1.0		8.5	8.5	8.5	1.0	8.0	3.6		0.8	7.4	
7-Feb-14			1.5		9.4	9.4	9.6	1.2	8.1	8.1		1.3	8.1	
			1.2		8.3	8.3	9.6	1.1	8.1	5.1		0.9	8.2	
8-Feb-14			1.3		8.4	8.4	8.0	1.2	8.2	2.2		0.6	7.4	
			1.1		8.3	8.3	8.7	1.2	8.2			0.9	7.5	
AVG:	1.5	9.1	1.2	3.6	8.8	8.8	8.9	1.1	8.1	6.2	closed	1.0	7.8	8.0



New ice climbing feature forming under east fishladder. Small leak in expansion joint which normally seals as air temperature increases.