

# The Dalles Dam Fishway Status Report

06/08/19

Inspection Period: June 09 - June 15, 2019

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
P.O. Box 564  
The Dalles, OR 97058-9998  
Phone: 541-506-3800

The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: 21	Temperature: 62.0 °F
			Comments: High shad numbers passing.	Secchi: 3.6 feet
<b>NORTH FISHWAY</b>				
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'	1.4	
Entrance weir N1	0	depth (≥ 8')	10.0	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
<b>EAST FISHWAY</b>				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	0	Per forebay		
Weir 158-159 differential	0	1.0' ± 0.1'		
Count station differential	0	≤ 0.3'		
153 Weir crest depth	0	1.3' ± 0.1'	1.3' criteria to allow shad passage; 1x too low	
Junction pool weir JP6	0	0.0		
East entrance differential	0	1.0' - 2.0'		
Entrance weir E1	0	No criteria		
Entrance weir E2	0	depth (≥ 8')		
Entrance weir E3	0	depth (≥ 8')		
Collection channel velocity	0	1.5 - 4 fps	2.29 fps on 6/12; range 1.7 fps at MU14, to 2.77 fps at MU4	
Transportation channel velocity	0	1.5 - 4 fps	2.49 fps on 6/12.	
North channel velocity	0	1.5 - 4 fps	1.97 fps on 6/12.	
South channel velocity	0	1.5 - 4 fps	3.94 fps on 6/12.	
West entrance differential	0	1.0' - 2.0'		
Entrance weir W1	0	depth (≥ 8')		
Entrance weir W2	0	depth (≥ 8')		
Entrance weir W3	closed	No criteria		
South entrance differential	0	1.0' - 2.0'		
Entrance weir S1	0	depth (≥ 8')		
Entrance weir S2	0	depth (≥ 8')		
<b>JUVENILE PASSAGE</b>				
Sluiceway operation	0	Units 1, 8, 18;		
Turbine trashrack drawdown	0	<1.5', biwklly	Gatewells inspection 6/15/19. Live smolts, mini jacks and shad in most wells.	
Spill volume/pattern	0	None	Gates 1 through 8 open to flex spill pattern. Collecting data from dials atop spill gates.	
Turbine Unit Priority	0	per FPP	MU 5 and 6 OOS for maintenance	
Turbine 1% Efficiency	0	per FPP		

## OTHER ISSUES:

### Operation:

East & North fish ladders in full operation.  
Sluiceway open with 8 gates MU16 used for MU18 Sluice gates moved  
Spillway open for juvenile passage.  
Smolt mortalities found in gatewells 3-3 (1), 18-1 (5), 18-1(3), 2-1(1)  
Spill KCFS beginning to stay below 100 total

### Outages

MU5 FOOS through 1700 8/29/2019 for T3 GSU transformer replacement  
MU6 OOS 0830 11/19/2018 - 1700 8/29/2019 for T3 GSU transformer replacement  
T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
SSO2 OOS 0630 6/3/2019 - 1700 7/11/2019 for O/H.  
MU17 & MU18 OOS 0001 6/10/2019 - 1700 6/20/2019 for Annuals

### Maintenance:

East count station window/crowder brush repaired and functioning. Looking into improvements for long term reliability.  
Calibration check 6/15: inaccuracy issue with east entrance tailwater reading adjusted. West entrance PLC setpoint inaccuracy, not OOC.  
Collection channel dewatering pumps 5 and 6 rehab in progress.  
Fishway automation parts purchase ongoing. Labor for assembly and install FY20.  
Engineering evaluation of east fishway diffuser valve status to resume.  
Spillway assessment in progress. Spillway crane replace and spillgate 9 repair included. Prioritizing gates 1-9 as first for rehab.  
North trashrack rake OOS, RTS~06/20

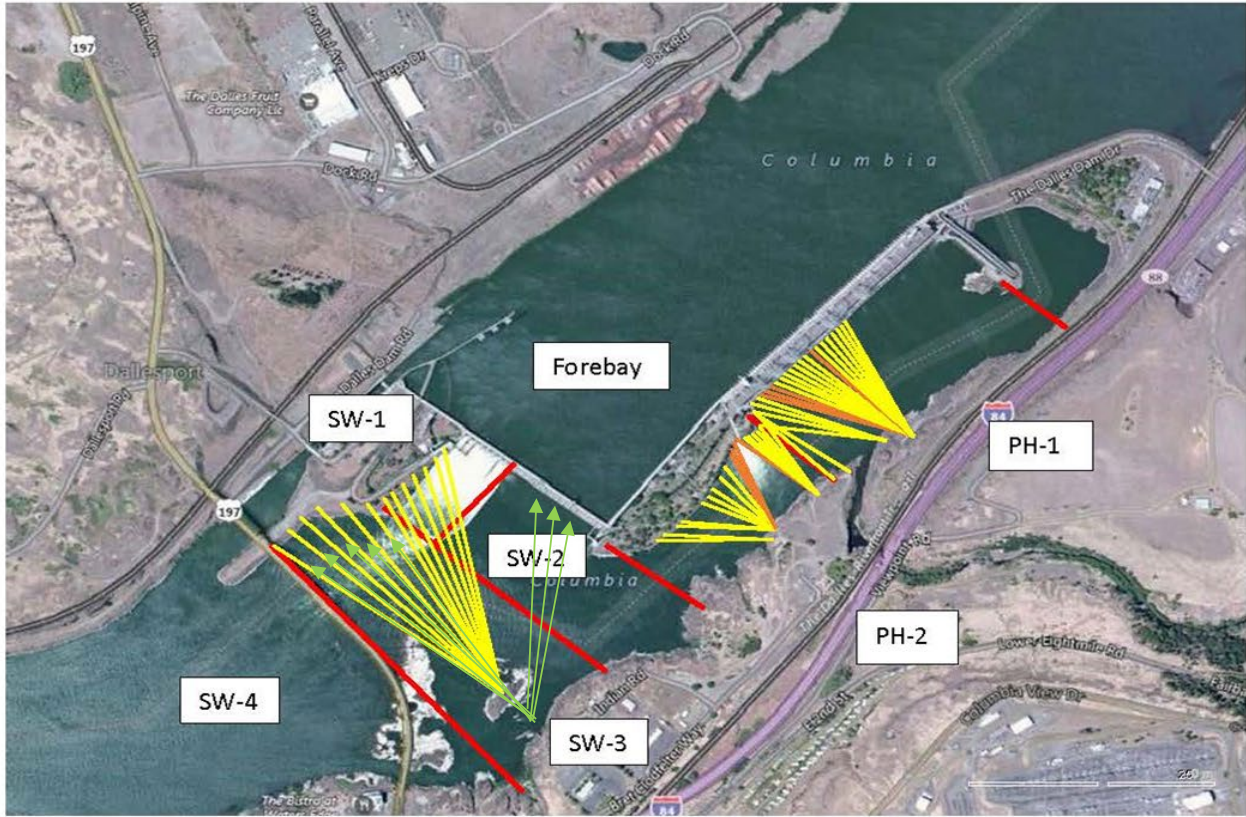
### Predators;

USDA hazing from boat and shore appears very effective w/ addition of continual hazing from project, comparatively small numbers of gull and pelican foraging  
Sea Lions not observed by fisheries yet to date, bird hazers see them ~once a week, reliable claim of stellars spotted

### Research/Construction/Contractors:

Forebay temperature monitoring commenced for second and final year of testing  
Fish counting contractors (Four Peaks) on site and counting.  
For fish count data refer to; [FPC FISH COUNTS](#)  
AWS backup - All deficiencies corrected by contractor. Compiling list for follow on contract items and spare parts.  
Transformer replacement - T3 ongoing. Testing after august completion. Date to be determined  
PSMFC weekly sampling for North Wasco County PUD continues. Refer to PCMFC weekly sample report.  
PITAGS north and east fishladder data collection at count stations continues.  
Pikeminnow dam angling - 37 Pikeminnow week of June 9. Total 135 YTD. **Bass/Walleye release continues, unlike dam angling conducted at PUD projects.**  
ODFW monthly fishway inspections ongoing.  
Lamprey minor mods - Planning for potential LPS in junction pool.  
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow started 6/4. Total of 18 nights of adjustment planned.  
Lamprey trapping - hoist system installed, thanks to ingenuity of project engineer and execution of Mechanic. Lifts being utilized successfully  
Fish unit breaker replace.- Fish units returned to service. Substantial cleanup likely next winter. Awaiting schedule from contractor.  
Fish unit rehab - Ongoing for phase 1A.


Approved by: Mike Colesar acting for Ron Twiner  
Operation Project Manager The Dalles Dam



Red lines = avian zones

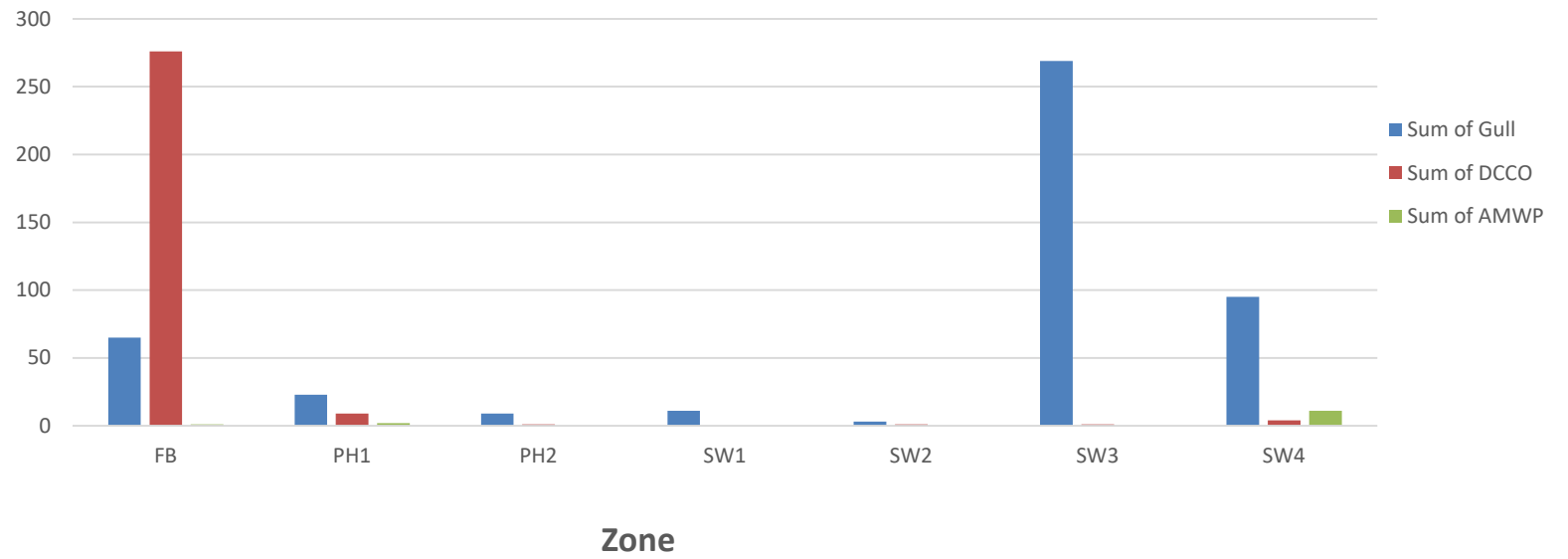
Yellow lines = current wires

Orange lines = down or missing wires

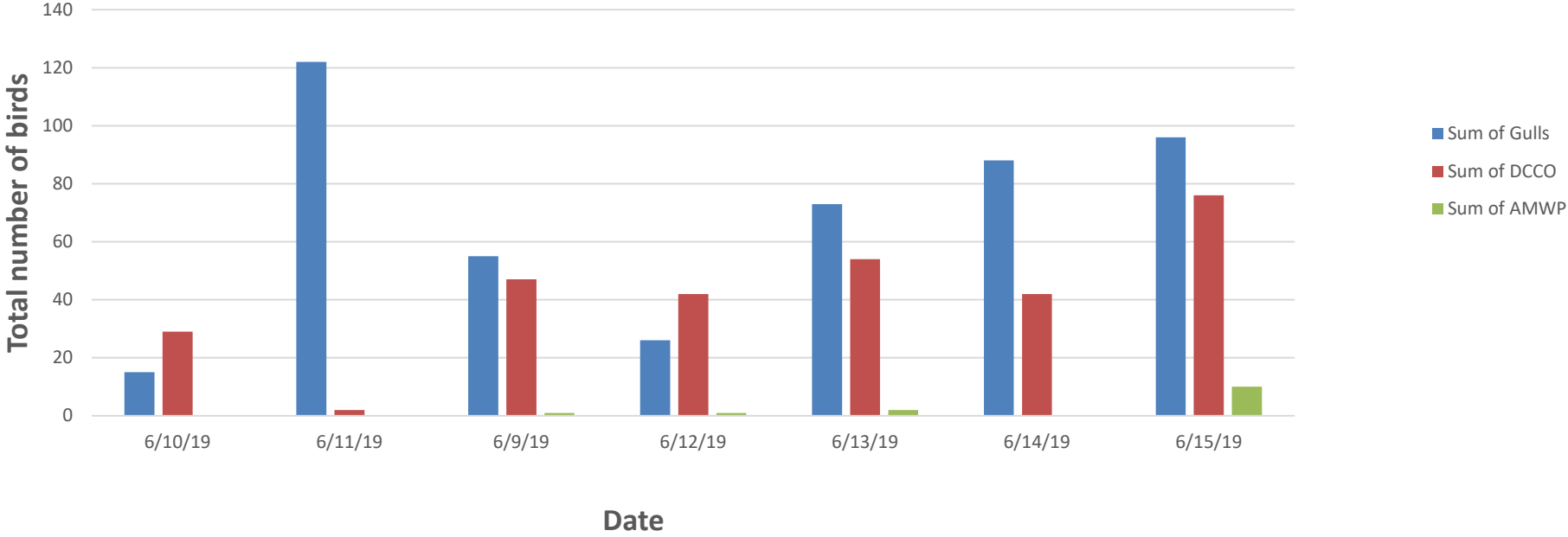

Additional avian lines installed 9/2018

### Bird Observations by Zone 6/9 -6/15/2019

Total number of birds



Current week Bird Observations by Date

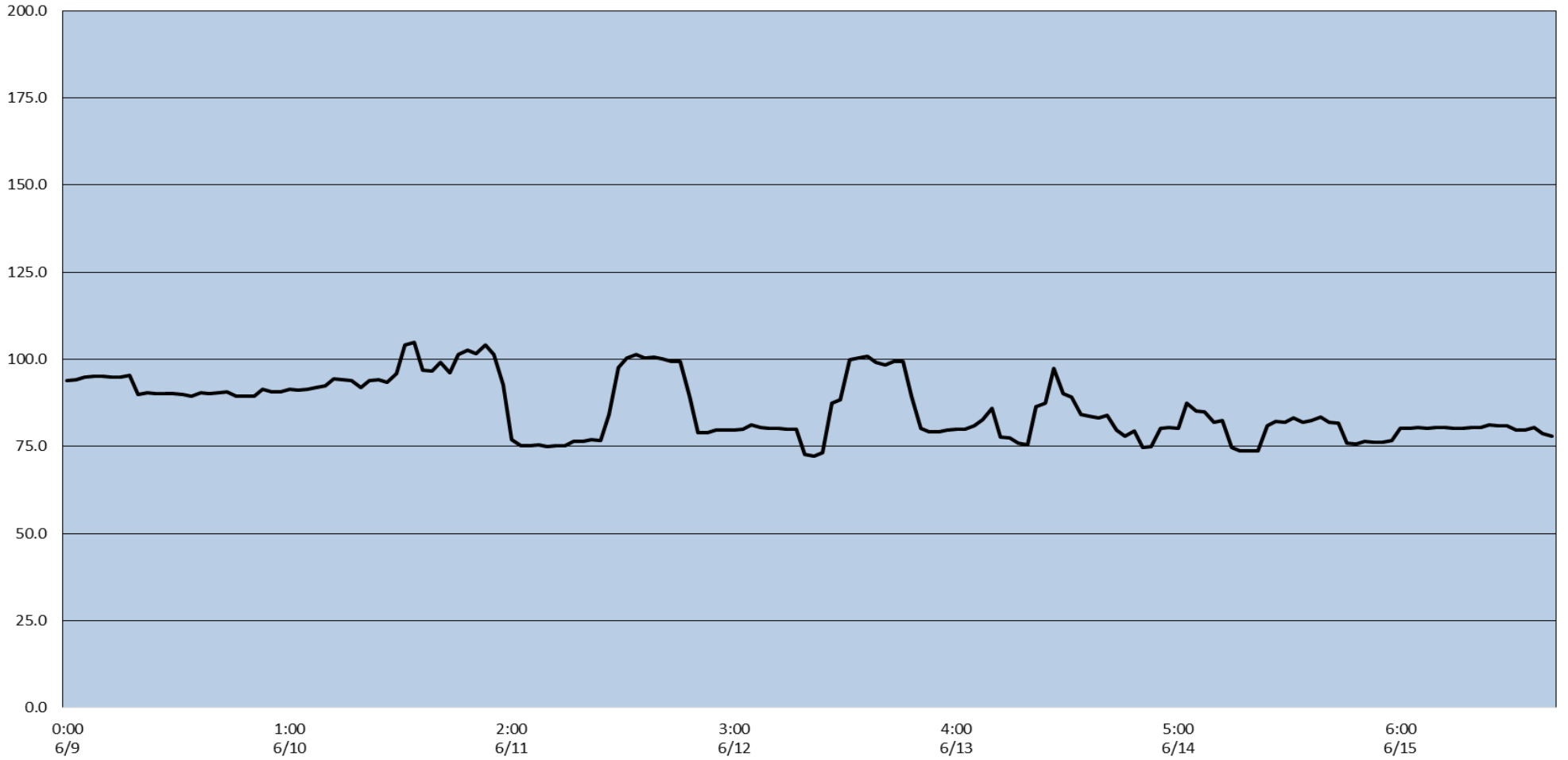


# The Dalles Fish Ladder/River Temperatures

— East Count Station — South Entrance — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2017)



# Spill KCFS



		USGS:
Secchi:		Temperatures
6/9	4.0	Sun 60.9
6/10	3.5	Mon 61.4
6/11	3.5	Tue 61.7
6/12	3.0	Wed 62.1
6/13	3.0	Thurs 62.5
6/14	4.0	Fri 62.5
6/15	4.5	Sat 62.6
	3.6	AVG 62.0

June

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

SCADA INSPECTION  
Out of criteria  
Lamprey passage modifications  
Data omitted

Date:	North Ladder Entrance		East Ladder											
			East Entrance- open					West Entrance			South Entrance			
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
6/9			1.5		13.3	13.3	13.6	1.4	8.5	8.5		1.4	8.9	9.0
	1.4	9.8	1.4		13.3	13.4	13.5	1.5	8.2	8.2		1.5	8.9	9.0
	1.4	9.9	1.5		13.2	13.3	13.4	1.5	8.3	8.3		1.4	9.0	9.1
6/10			1.4		13.3	13.3	13.3	1.4	8.2	8.2		1.5	8.9	8.9
	1.4	10.0	1.4		13.3	13.3	13.3	1.6	8.2	8.2		1.4	9.0	9.0
	1.3	10.0	1.7		13.3	13.3	14.2	1.6	8.3	8.3		1.5	9.0	9.0
6/11			1.5		13.2	13.2	12.5	1.4	8.5	8.5		1.4	9.0	9.0
	1.3	9.9	1.8		13.4	13.4	12.4	1.5	8.5	8.5		1.3	8.6	8.6
	1.4	10.0	1.3		13.4	13.4	12.9	1.5	8.3	8.3		1.3	9.2	9.2
6/12			1.2		13.3	13.3	12.3	1.3	8.2	8.2		1.4	8.9	8.9
	1.3	10.0	1.3		13.2	13.2	12.2	1.4	8.2	8.2		1.5	8.9	8.9
	1.5	10.0	1.6		13.2	13.1	13.4	1.4	8.4	8.4		1.5	9.0	9.0
6/13			0.7		14.0	14.0	12.3	0.5	11.1	11.1		0.6	12.0	12.0
	1.3	10.0	1.5		13.5	13.5	11.9	1.4	8.4	8.4		1.4	8.8	8.8
	1.3	9.9	1.5		13.4	13.5	12.8	1.5	8.4	8.4		1.5	8.8	8.7
6/14			0.7		14.0	14.0	12.5	0.7	10.2	10.2		0.6	12.5	12.5
	1.3	10.0	1.3		13.4	13.4	12.8	1.5	8.3	8.3		1.5	9.0	9.0
	1.4	9.9	1.6		13.5	13.5	12.2	1.4	8.4	8.4		1.5	9.0	9.0
6/15			1.5		13	13.1	12.9	1.4	8.5	9		1.4	9.0	9.0
	1.4	10.0	1.7		13.1	13	13	1.5	8.9	8.9		1.5	8.9	8.9
	1.3	10.0	1.5		13	13	12.9	1.5	8.9	8.9		1.4	9.1	9.0
<b>AVG:</b>	<b>1.4</b>	<b>10.0</b>	<b>1.5</b>		<b>13.3</b>	<b>13.3</b>	<b>12.9</b>	<b>1.5</b>	<b>8.4</b>	<b>8.4</b>		<b>1.4</b>	<b>8.9</b>	<b>8.9</b>

**Fishways are inspected twice daily plus one SCADA inspection.**





Floating temperature profile strings in the BRZ-East Exit Temperature profile data to be analyzed for thermal stratification





Sea Lion observed by USDA at The Dalles Marina