

# The Dalles Dam Fishway Status Report

04/21/19

Inspection Period: April 14 - April 20, 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: Comments: Fish units back in service.	Temperature: Secchi:
			21	49.6 °F 1.5 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')	9.9	
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	1.1' ± 0.1'		
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	Not available	
Transportation channel velocity	0	1.5 - 4 fps	Not available	
North channel velocity	0	1.5 - 4 fps	1.58fps on 4/11 high tailwater.	
South channel velocity	0	1.5 - 4 fps		
West entrance differential	4	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	1	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', biweekly	Not available	
Spill volume/pattern	0	None	Gates 1 through 8 open to flex spill pattern.	
Turbine Unit Priority	0	per FPP	MU 5 and 6 OOS for maintenance	
Turbine 1% Efficiency	0	per FPP		

## OTHER ISSUES:

### **Predators;**

Light to moderate Gull numbers. USDA hazing from boat and shore

Ongoing FPOM discussions concerning bass/walleye release by pikeminnow dam angling crew. Resolution for this season appears unlikely. **Catch and release of known invasive predators to juvenile salmonids likely to continue through the 2019 WDFW dam angling program.** This will be the third year of discussions.

### **Operation:**

East & North fish ladders in full operation.

Sluiceway open with 6 sluiceways per Fish Passage Plan.

### **Current Outages;**

MU3 OOS 0001 4/15/2019 - 1700 5/23/2019 for Annual

MU4 OOS 0630 4/15/2019 - 1700 5/23/2019 for O/H

MU5 FOOS through 1700 7/12/2019 for T3 GSU transformer replacement

MU6 OOS 0830 11/19/2018 - 1700 7/12/2018 for T3 GSU transformer replacement

T10(MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

### **Maintenance:**

East count station window/crowder brush OOS, TDM working to resolve.

Calibrations: East tailwater position indicator accuracy continues to be problematic. Troubleshooting underway.

Collection channel dewatering pumps 5 and 6 rehab ongoing. Pump 1 ready for install.

Fishway automation assembly starts April. Install winter of 2019/20

Diffuser valve status evaluation by engineering underway to help determine a process for rehab.

Contract for goats to remove vegetation on top side of north ladder and south channel mid May.

Fish related /non-fish funded items; Spillway assessment underway. Spillway crane replace and spillgate 9 repair included.

All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022. Comprehensive spillway assessment review underway.

### **Research/Construction/Contractors:**

FFU and project fisheries staff video monitoring count stations. Taking more time now with low visibility conditions.

*AWS backup* - Valve room electrical repair needed. Compiling list for follow on contract items.

*Transformer replacement* - Install T3 underway

PSMFC weekly sampling for North Wasco County PUD resumed Apr1. Refer to PSMFC weekly sample report.

PITAGS north and east fishladder data collection at count stations continues.

*Fish Counters* - Fish Field Unit providing video support. 4 Peaks scheduled to begin 5/1. Providing support as needed.

*Pikeminnow dam angling* - Resumes this spring. Bass/Walleye release continues as ongoing FPOM discussion.

ODFW monthly fishway inspections resumed.

*Lamprey minor mods* - Site visit for potential LPS planning around junction pool.

Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow reduction test to resume in May.

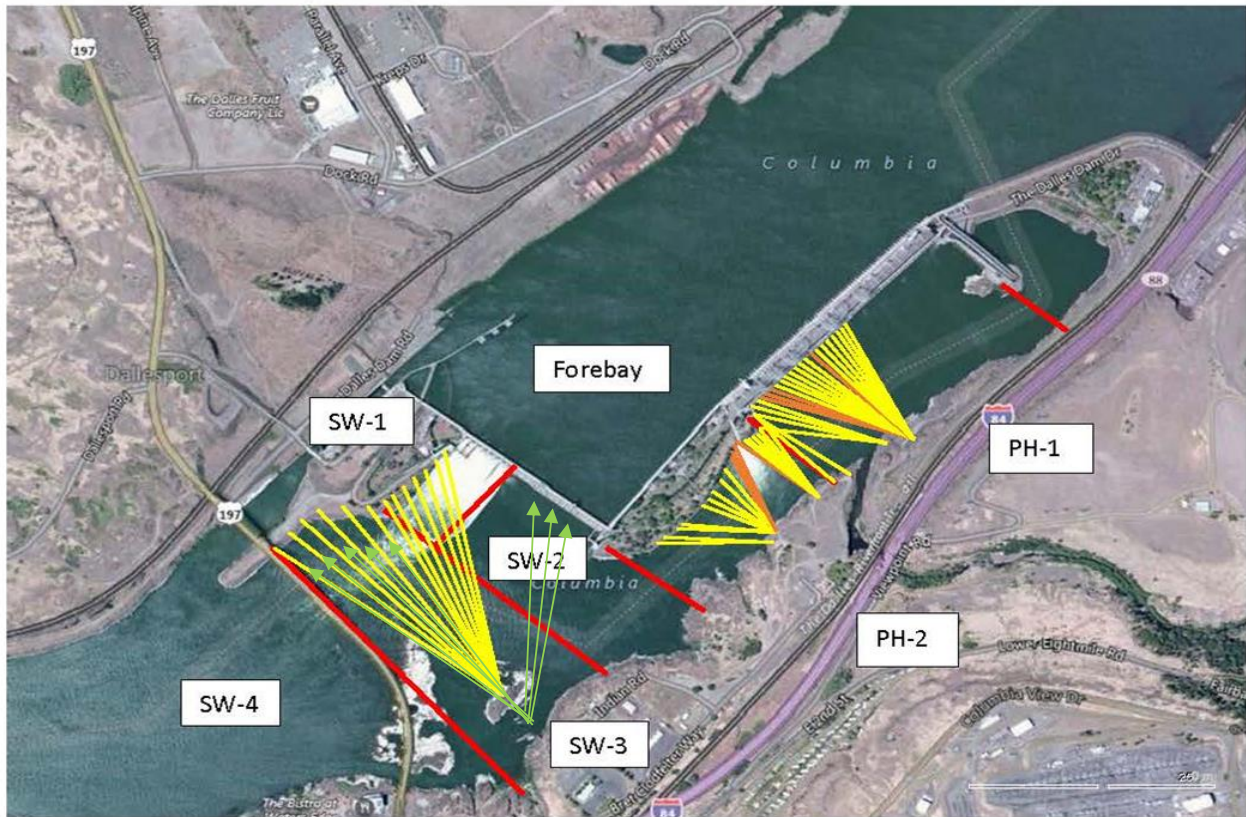
Tribal lamprey trapping - Materials and plans on hand. Starting assembly.

*Fish unit breaker replace* - Fish units returned to service. Substantial cleanup likely next winter.

*Fish unit rehab* - Design on hold until further notice.

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

## 2019 Piscivorous Bird Counts

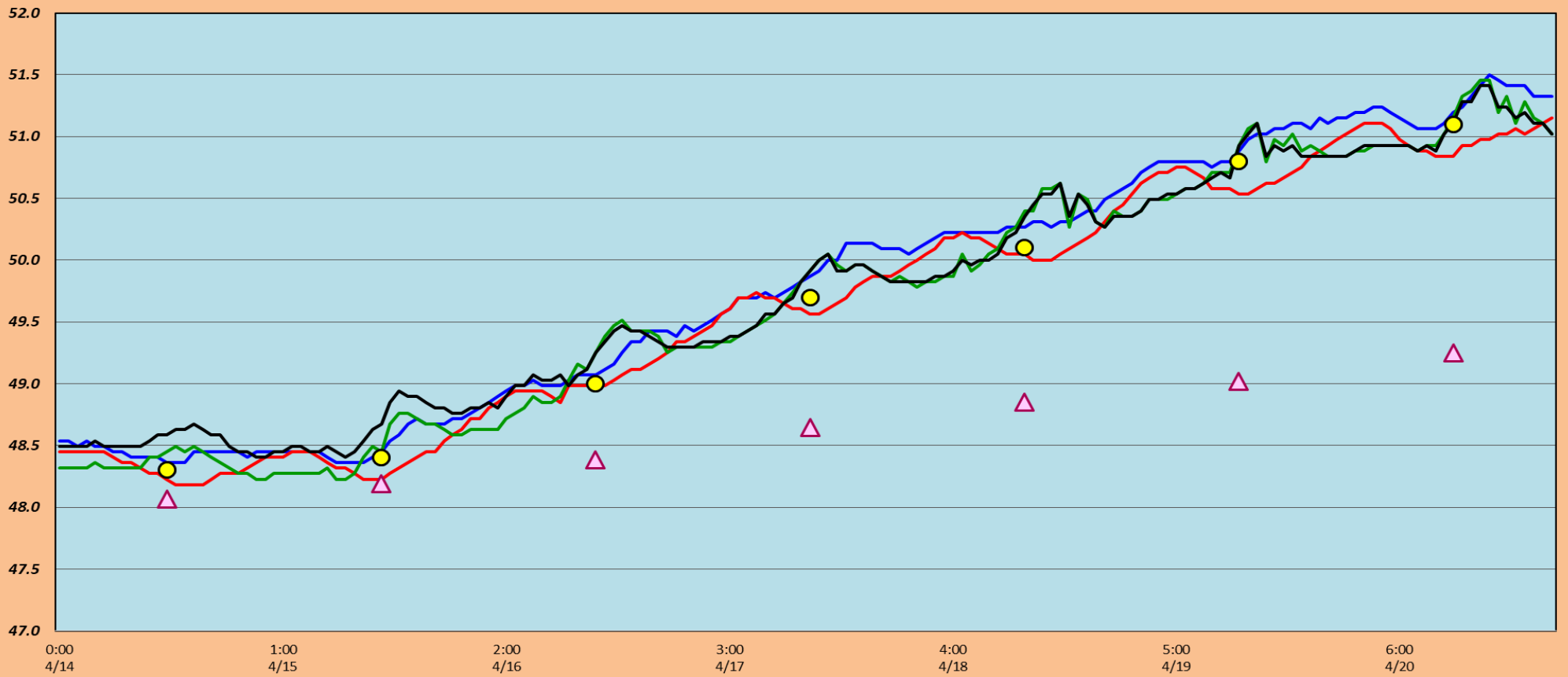
F=foraging, NF=non-foraging

Date	Observer	AM/PM	Zone	Gull		Cormorant		Caspian tern		Grebe		White Pelican		Other		Total birds in zone	Notes		
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF				
4/14/19	JED	PM	FB	0	0	0	23	0	0	0	0	0	0	0	2	0	25	reactive to green light, left the BPA tower and returned by 800, 2 osprey F.	
			PH1	2	0	0	2	0	0	0	0	0	0	0	0	0	4	1 NF gull hazed off light pole 0700, 5 gulls F.	
			PH2	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		Overcast , 15mph, 50F
			SW3	1	0	0	0	0	0	0	0	0	0	0	1	0	2		Osprey
4/15/19	JED	AM	FB	0	0	0	36	0	0	0	0	0	0	0	0	0	36		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		sunny, calm, 40F
			PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
4/16/19	JWR	AM	FB	0	0	0	12	0	0	0	0	0	0	0	0	0	12		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW3	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
4/17/19	JWR	PM	FB	2	0	0	0	0	0	0	0	0	0	0	0	0	2		
			PH1	16	3	0	0	0	0	0	0	0	0	0	0	0	19		
			PH2	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	3	0	0	0	0	0	0	0	0	0	0	0	0	3		
			SW3	4	0	0	0	0	0	0	0	0	0	0	0	0	4		
4/18/19	JWR	AM	FB	1	0	3	34	0	0	0	0	0	0	0	0	0	38		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW3	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4/19/19	CEA	PM	FB	0	0	0	29	0	0	0	0	0	0	0	0	0	29		
			PH1	0	0	0	3	0	0	0	0	0	0	0	0	0	3		PH1 east
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		windy, cloudy, 70F
			SW3	15	0	0	0	0	0	0	0	0	0	0	0	0	15		
4/20/19	JWR	AM	FB	0	0	3	18	0	0	0	0	0	0	0	0	0	21		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
			SW3	1	0	0	0	0	0	0	0	0	0	0	0	0	1		
SW4	4	0	0	0	0	0	0	0	0	0	0	0	0	4					

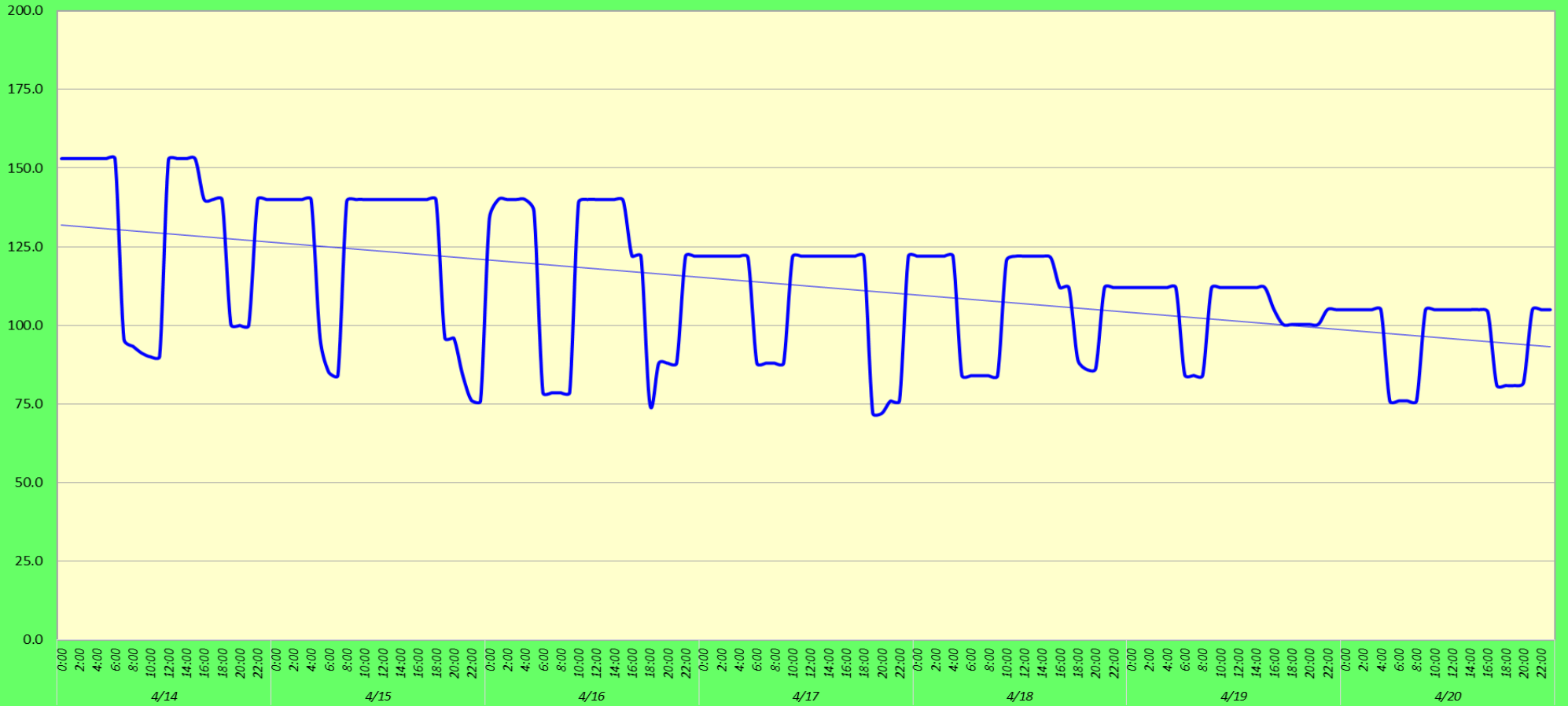
**Key: BAEA = Bald Eagle; GBHE = Great Blue Heron; COME = Common Merganser**

# The Dalles Dam Adult Fish Ladder(s)/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
4/14	1.5	Sun 48.3
4/15	1.5	Mon 48.4
4/16	1.5	Tue 49.0
4/17	1.5	Wed 49.7
4/18	1.5	Thurs 50.1
4/19	1.5	Fri 50.8
4/20	1.5	Sat 51.1
	1.5	AVG 49.6

[USGS river temp APRIL.](#)

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

SCADA INSPECTION  
= Out of criteria

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
4/14			1.5		12.5	12.5	13.1	1.3	8.2	8.2		1.1	8.5	8.5
	1.3	10.0	1.6		12.4	12.4	13.6	1.2	8.2	8.2		1.3	7.9	8.0
	1.4	10.0	1.5		12.4	12.4	12.8	1.1	8.2	8.2		1.2	8.3	8.2
4/15			1.6		12.4	12.4	12.8	1.1	8.2	8.2		1.2	8.3	8.3
	1.4	9.9	1.5		12.6	12.5	12.5	1.1	8.3	8.3		1.1	8.3	8.3
	1.4	10.0	1.5		12.0	12.0	11.9	1.1	8.1	8.1		1.1	8.2	8.2
4/16			1.6		12.1	12.1	12	1	8.2	8.2		1.2	8.3	8.3
	1.7	8.9	1.7		11.9	11.9	11.8	1	8.2	8.2		1.2	8.2	8.2
	1.4	10.0	1.5		11.9	12	11.2	0.9	8.3	8.3		1.2	8.2	8.2
4/17			1.8		12	12	13.1	1.1	8.3	8.3		1.3	8.3	8.3
	1.5	10.1	1.4		13.5	13.5	12.8	1.1	8.1	8.1		1.2	8.3	8.3
	1.4	10.0	1.4		13.3	13.3	12.4	1.1	8.3	8.3		1.2	8.2	8.2
4/18			1.3		13.6	13.6	12.7	1.1	8.2	8.2		1.3	8.1	8.2
	1.4	9.9	1.4		13.5	13.5	12.5	1	8.2	8.2		1.4	8.1	8.1
	1.4	9.9	1.3		13.5	13.5	11.8	1	8.2	8.2		1.2	8.1	8.1
4/19			1.2		13.5	13.5	10.8	0.9	8.1	8.1		1.3	8.1	8.1
	1.4	9.9	1.6		14	14	11.9	1.1	8.2	8.2		1	8.2	8.1
	1.4	10.0	1.5		13.4	13.4	11.7	1	8.2	8.2		1.2	8.2	8.3
4/20			1.5		13.4	13.4	11.3	0.9	8.2	8.2		1.3	8.2	8.2
	1.4	9.9	1.4		13.6	13.6	11.3	0.9	8.2	8.2		1.2	8.2	8.1
	1.4	10.0	1.4		13.5	13.5	11.2	1	8.2	8.2		1.1	8.2	8.2
<b>AVG:</b>	<b>1.4</b>	<b>9.9</b>	<b>1.5</b>		<b>12.9</b>	<b>12.9</b>	<b>12.2</b>	<b>1.0</b>	<b>8.2</b>	<b>8.2</b>		<b>1.2</b>	<b>8.2</b>	<b>8.2</b>

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