

The Dalles Dam Fishway Status Report

5/10/2015

Inspection Period: 5/3/2015 to 5/9/2015

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

Fishways are inspected twice daily plus one SCADA inspection

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 21		Temperature: #DIV/0! F
			Comments		Secchi: 4.8 feet
NORTH FISHWAY					
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	9.5	
Entrance weir N2	0	Closed	Bulkhead installed.		
PUD Intake differential	0	≤ 0.5'			
EAST FISHWAY					
Exit differential	0	≤ 0.5'			
Removable weirs 154-157	0	Per forebay	Auto adjusts 1' increments.		
Weir 158-159 differential	0	1.0' ± 0.1'			
Count station differential	0	≤ 0.3'	Picket leads raked as needed.		
Weir crest depth	0	1.0' ± 0.1'			
Junction pool weir JP6	0	depth (≥ 7')	Average	8.9	
East entrance differential	0	1.0' - 2.0'	Average	1.5	
Entrance weir E1	0	No criteria	Average	No criteria; manually adjusted as needed.	
Entrance weir E2	0	depth (≥ 8')	Average	12.8	
Entrance weir E3	1	depth (≥ 8')	Average	8.9	out at 7.8'. manually adjusted.
Collection channel velocity	0	1.5 - 4 fps	Average	2.8	
Transportation channel velocity	0	1.5 - 4 fps	Average	2.8	
North channel velocity	0	1.5 - 4 fps	Average	2.6	
South channel velocity	0	1.5 - 4 fps	Average	3.5	
West entrance differential	0	1.0' - 2.0'	Average	1.5	
Entrance weir W1	0	depth (≥ 8')	Average	10.0	
Entrance weir W2	0	depth (≥ 8')	Average	10.0	
Entrance weir W3	0	No criteria	Average	No criteria; manually adjusted as needed.	
South entrance differential	0	1.0' - 2.0'	Average	1.5	
Entrance weir S1	0	depth (≥ 8')	Average	8.5	
Entrance weir S2	0	depth (≥ 8')	Average	8.5	
JUVENILE PASSAGE					
Sluiceway operation	1	Units 1, 8, 18	Sluiceways 1-1,2,3, 8-1,2, and 18-2 open		See below for change in sluiceway operation.
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.3-0.9'		
Spill volume	0	40%+1%	Average	40.1	
Spill Pattern	0				
Turbine Unit Priority.	10	per FPP	MU 5 & 6 tripped offline due to a needed update on the relays. MU7 OOS for a 5 yr overhaul		
Turbine 1% Efficiency	0	per FPP			

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

Bird observation data collected once daily. Refer to Avian Zone Map.

Operations:

All fishways in operation per Fish Passage Plan requirements.

Gatewell differential check done 05/08 all reading within criteria.

Sluiceway were changed from MU 8 to MU 5 from 5/3 to 5/7

F1 and F2 were taken out of service one at a time on 5/7 from 1800 to 0600 to replace failing brushes. Coordinated through FPOM.

Current Outages:

Current Outages:

T8 (MU15 & MU16) de-rated to 85MW ops through 9/14/2017

MU7 out 5/4/2015 to 6/25/2015 for overhaul

T3 forced out due to relay settings and testing through 5/11/2015

T2 is limited to 150 MVA due to relay settings and testing through 5/11/2015

Maintenance:

Entrance weir wheel and guide work to resume next winter outage.

Three collection channel dewatering pumps on deck for rehab, repair delayed due to lack of funding. Two of 6 collection channel pumps remain stuck.

FCQ7 electrical panel for east exit upgrade funding in place. Planning and parts purchase underway for installation next outage season.

Future repair plans; Upgrade east exit weirs 154-157, removal/permanent closure of collection channel diffusers, repair north failed diffusers,

Fish related but non-fish funded items; spillway evaluation, spillway crane rehab, spillgate 9 trunnion pin replacement, HDC updated fish unit reliability assessment, planning upgrade fish unit breakers and fish unit transformer replacement.

All spillway items on Critical Infrastructure list and Unfunded Requirement list. Spill gate 9 pine repair meeting planned for May5.

Studies:

North fishladder rehab of rock walls product development team to start within next week. Construction dates to be determined.

March fish count video at north count station completed. Night video to start May 15 pending lighting installation. To be used with new software application.

BCOES review site visit for east fishladder backup system Apr30. Construction start this winter. FPOM coordination needed for work schedule.

Crane rail replacement on tailrace and intake decks winter of 2016-2017. Schedule planning underway. Expected FPOM coordination needed.

Research/Contractors:

USDA gull hazer's on site 12 hours/day, primarily hazing from the navlock peninsula. Pigeon removal near east ladder in progress.

Fish counters at east and north count stations 16 hr/day. North count station video counting to resume 5/15 (night only) after inferred light install.

PSMFC PUD weekly sampling 5/6; 11 Chinook yearling, 2 subyearling smolts, 10 fry, 1 unclipped Steelhead, 2 clipped Steelhead, and 1 Sockeye.

WDFW to conduct hook and line removals of predatory northern pikeminnow from the BRZ adjacent to the project. Start date mid May.

University of Idaho maintaining antennas and monitoring movements of adult steelhead outfitted with radio-tags and Pacific lamprey outfitted with half-duplex (HDX) PIT tags.

ODFW forbay Northern Pikeminnow Management Program; # NPM tagged - 32, adult salmonids - 17, juvenile salmonids - 1,334, sturgeon - 43, game fish - 2,646, non-game fish - 6,901.

Coordination underway for tribal lamprey trapping at east count station.

PSMFC monitoring and maintaining thin walled PIT tag antennas and computer equipment. USGS total dissolved gas monitoring .

USGS total dissolved gas monitoring.

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam

Columbia River DART

2015 Adult Passage Daily Ladder Counts at The Dalles

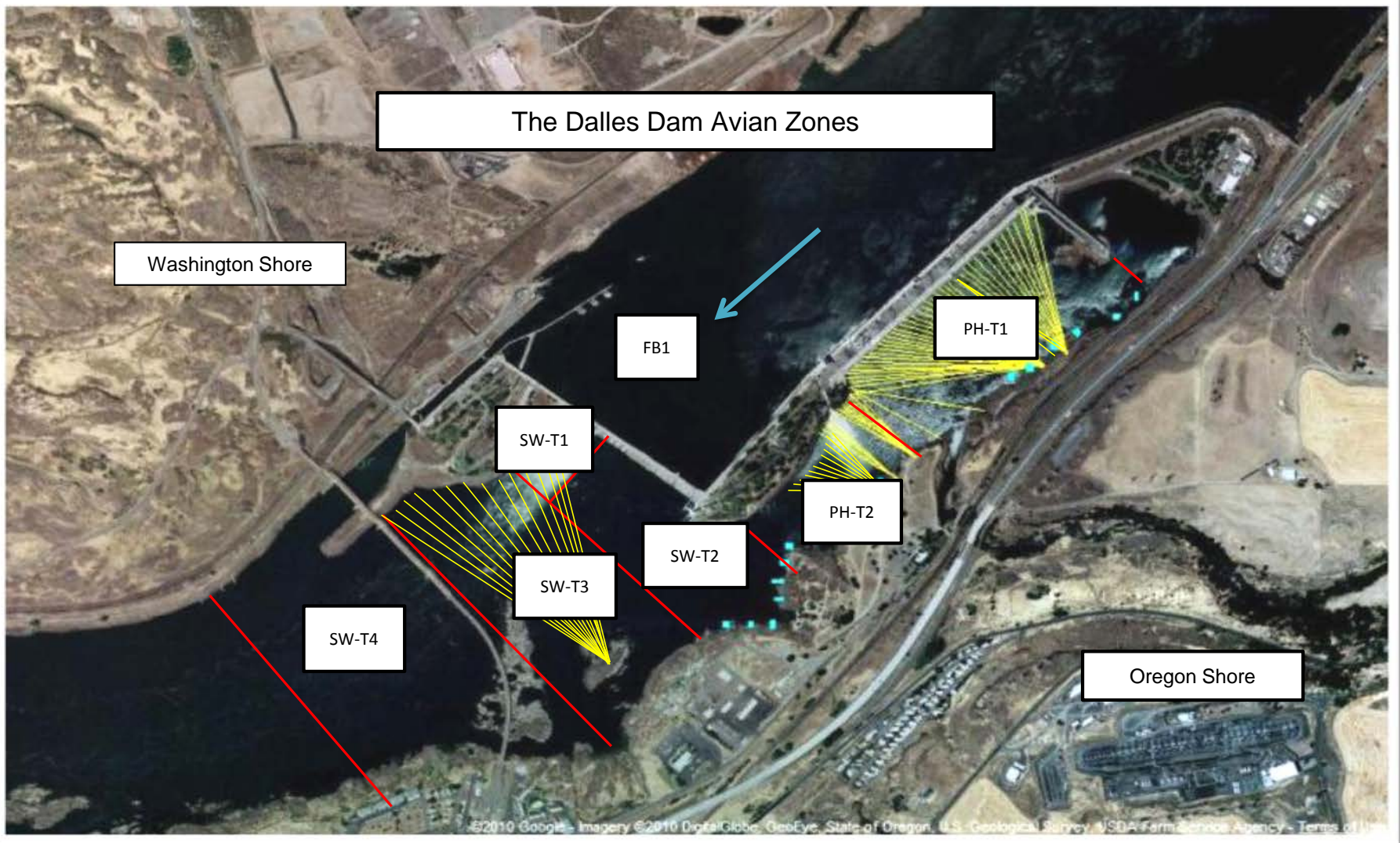
with Spill Percent and Outflow

5/3/2015 - 5/9/2015

Date	Chinook				Jack Chinook				Steelhead				Wild Steelhead				Sockeye				Coho				Jack Coho				Lamprey				Outflow (kcs)									
	Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder															
	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#														
3-May-15	66	3055	34	1594	85	240	15	43		7		0		2		-1		0		0		0		0		0		0		0		0		0		0		0		0		66
4-May-15	66	2080	35	1096	76	131	24	42	53	8	47	7		2		0		0		0		0		0		0		0		0		0		0		0		0		65		
5-May-15	63	1716	37	1012	84	146	16	28	80	4	20	1		2		0		0		0		0		0		0		0		0		0		0		0		0		59		
6-May-15	76	2584	24	826	85	140	15	24	50	1	50	1	50	1	50	1		0		0		0		0		0		0		0		0		0		0		0		56		
7-May-15	61	2094	40	1367	84	208	16	40		5		-1		1		-1		0		0		0		0		0		0		0		0		0		0		0		63		
8-May-15	68	2556	32	1214	71	214	29	86	67	4	33	2		0		1		0		0		0		0		0		0		0		0		0		0		0		61		
9-May-15	55	1976	45	1634	81	300	19	71	75	3	25	1		1		0		0		0		0		0		0		0		0		0		0		0		0		59		
YTD	Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder							
	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#						
	64.8	16061	35.2	8743	80.5	1379	19.5	334	74.4	32	25.6	11		9		0		0		0		0		0		0		0		0		0		0		0		0				
Date	Chinook				Jack Chinook				Steelhead				Wild Steelhead				Sockeye				Coho				Jack Coho				Lamprey				Outflow									

Notes:

1. Last possible Data Date included is 05/09/2015.
2. Data Courtesy of U.S. Army Corps of Engineers.
3. USACE Data Disclaimer: These data are furnished with the understanding that the U.S. Army Corps of Engineers makes no warranties concerning the accuracy, reliability, or suitability of this data for any particular purpose.



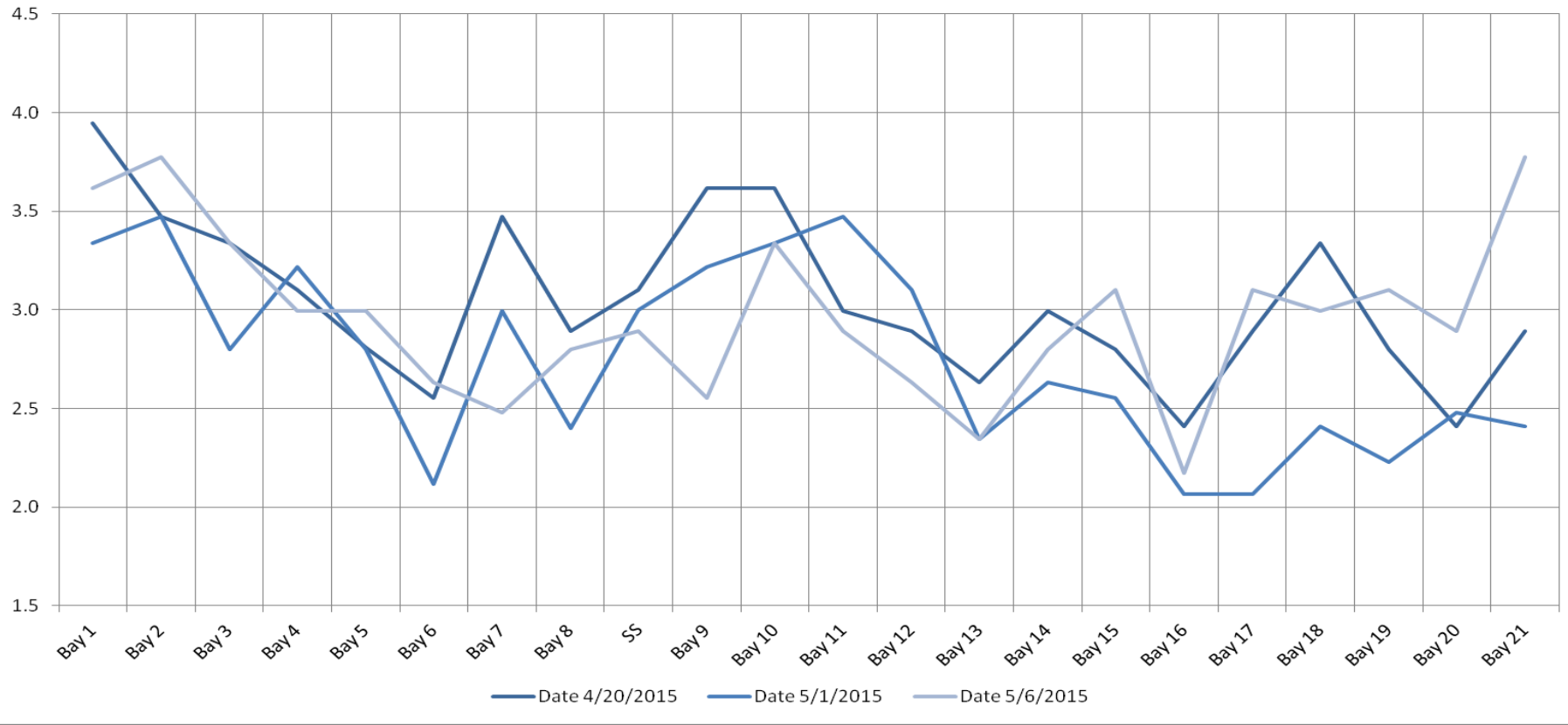
Avian lines in yellow, zones in red, river flow in blue.

2015 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	Time (24 hr)	Zone	Gull		Cormorant		Caspian tern		Grebe		Pelican		Other		Total birds in	Notes
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF		
5/3/15	PSK	15:30	FB	0	0	0	17	0	0	0	3	0	0	0	0	20	
		14:37	PH1	0	0	0	8	0	0	0	0	0	0	0	0	8	
		14:46	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		15:38	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		14:50	SW2	0	0	0	1	0	0	0	0	0	0	0	0	1	
		14:52	SW3	3	0	0	0	0	0	0	0	0	0	0	0	3	
		14:56	SW4	63	0	0	0	0	0	0	0	0	0	0	0	63	
5/4/15	jwr	8:48	FB	0	0	0	16	0	0	0	3	0	0	0	0	19	~70 gull below SW4
		9:04	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:10	PH2	0	0	0	1	0	0	0	0	0	0	0	0	1	
		8:43	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:14	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:15	SW3	27	51	0	0	0	0	0	0	0	0	0	0	78	
		9:17	SW4	69	0	0	0	0	0	0	0	0	0	0	0	69	
5/5/15	PSK	15:09	FB	0	0	0	6	0	0	0	0	0	0	0	0	6	
		13:30	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		13:34	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		15:19	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		14:11	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		14:12	SW3	0	3	0	0	0	0	0	0	0	0	0	0	3	
		14:14	SW4	0	35	0	0	0	0	0	0	0	0	0	0	35	
5/6/15	jwr	10:34	FB	0	0	0	31	0	0	0	4	0	0	0	0	35	
		9:48	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:55	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:17	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:08	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:09	SW3	0	0	25	72	0	0	0	0	0	0	0	0	97	
		10:12	SW4	0	0	64	0	0	0	0	0	0	0	0	0	64	
5/7/15	PSK	11:22	FB	0	0	0	11	0	0	0	3	0	0	0	0	14	
		8:56	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:44	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		11:32	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:46	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		9:49	SW3	1	13	0	0	0	0	0	0	0	0	0	0	14	
		9:53	SW4	30	43	0	0	0	0	0	0	0	0	0	0	73	
5/8/15	jwr	10:42	FB	0	0	0	9	0	0	1	0	0	0	0	0	10	
		10:03	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:07	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:46	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:23	SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		10:24	SW3	16	31	0	0	0	0	0	0	0	0	0	0	47	
		10:28	SW4	55	0	0	0	0	0	0	0	0	0	0	0	55	
5/9/15	EK	14:42	FB	0	0	0	6	0	0	0	0	0	0	0	0	6	
		14:23	PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		15:51	PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	
		14:59	SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	
		15:52	SW2	0	0	0	10	0	0	0	0	0	0	0	0	10	
		15:07	SW3	6	0	0	0	0	0	0	0	0	0	0	0	6	
		15:22	SW4	63	0	0	0	0	0	0	0	0	0	0	0	63	
Total:				333	176	89	188	0	0	1	13	0	0	0	0		

The Dalles Dam Collection Channel Velocites (In criteria 1.5 - 4.0 fps)



USGS: <http://www.nwd-wc.usace.army.mil/tmt/documents/ops/temp/201504.lcol.html>

Temperatures		Secchi:
	Sun	4.5
	Mon	5.0
	Tue	5.0
	Wed	5.0
	Thurs	4.0
	Fri	5.0
	Sat	5.0
AVG:	#DIV/0!	AVG 4.8

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

= Out of criteria

North Ladder			East Ladder													
North Entrance			East Entrance					West Entrance				South Entrance				% Spill
Date:	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth		
5/3/15			1.4	5.9	12.5	9.5		1.6	10.3	10.3	closed	1.6	8.4	8.5	39.9	
	1.5	9.3	1.5	6.1	12.5	9.7	9.7	1.7	10.2	10.4		1.4	8.7	8.6		
	1.4	9.4	1.6	6.1	12.5	9.7	9.7	1.6	10.4	10.3		1.5	8.5	8.5		
5/4/15			1.5	6.2	12.6	10.2		1.6	10.3	10.3		1.5	8.5	8.5	40.0	
	1.5	9.3	1.6	5.9	12.4	10.4	10.4	1.7	10.3	10.3		1.5	8.5	8.5		
	1.5	9.5	1.6	5.9	12.4	10.4	10.4	1.6	11.0	11.0		1.5	8.5	8.5		
5/5/15			1.5	6.0	12.4	8.8		1.4	10.0	10.0		1.5	8.4	8.5	40.0	
	1.4	9.5	1.5	6.0	12.4	8.5	8.5	1.5	10.0	10.1		1.4	8.6	8.5		
	1.4	9.6	1.6	6.0	12.4	8.3	8.3	1.5	9.9	10.0		1.4	8.6	8.6		
5/6/15			1.5	6.0	12.6	8.1		1.4	9.5	9.6		1.5	8.5	8.6	40.1	
	1.4	9.6	1.7	6.1	12.5	8.1	8.1	1.6	9.4	9.4		1.5	8.4	8.5		
	1.4	9.6	1.5	7.1	13.0	8.4	8.4	1.4	9.6	9.5		1.4	8.6	8.5		
5/7/15			1.2	7.0	13.1	8.5		1.5	9.5	9.5		1.5	8.4	8.4	40.0	
	1.4	9.6	1.3	7.1	13.1	8.3	8.3	1.6	9.5	9.4		1.4	8.6	8.5		
	1.5	9.5	1.2	7.1	13.1	8.5	8.5	1.5	9.6	9.5		1.5	8.4	8.5		
5/8/15			1.4	5.0	13.1	9.1		1.6	9.5	9.6	1.5	8.4	8.5	40.0		
	1.4	9.6	1.5	5.0	12.9	8.9	8.9	1.6	10.0	9.9	1.4	8.6	8.6			
	1.4	9.6	1.6	5.0	13.0	8.6	8.6	1.5	10.0	10.1	1.5	8.5	8.5			
5/9/15			1.5	5.1	13.1	7.8		1.4	10.0	10.1	1.4	8.6	8.6	40.6		
	1.4	9.6	1.6	5.0	13.1	8.0	8.1	1.4	10.0	10.1	1.4	8.6	8.6			
	1.4	9.5	1.5	5.1	13.1	8.5	8.6	1.5	10.0	10.0	1.5	8.6	8.6			
AVG:	1.4	9.5	1.5	No criteria	12.8	8.9	8.9	1.5	10.0	10.0	closed	1.5	8.5	8.5	40.1	

Fishways are inspected twice daily plus one SCADA inspection.