

The Dalles Dam Fishway Status Report

09/30/18

Inspection Period: September 23 - 29, 2018

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 Out of Criteria	Criteria Limit	Total Number of Inspections: Comments	21 Aquatic weeds abound on racks	Temperature: Secchi:	65.3 °F 5.4 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'	1.3			
Entrance weir N1	0	depth (≥ 8')	9.1			
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
EAST FISHWAY						
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	1.0' ± 0.1'	>1.1'			
Junction pool weir JP6	0	0.0				
East entrance differential	0	1.0' - 2.0'	1.5			
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	13.5			
Entrance weir E3	0	depth (≥ 8')	13.5			
Collection channel velocity	0	1.5 - 4 fps	2.33 fps	Range: MU11, 1.87 fps to MU 17, 2.61fps		
Transportation channel velocity	0	1.5 - 4 fps	2.88 fps			
North channel velocity	0	1.5 - 4 fps	3.06 fps			
South channel velocity	0	1.5 - 4 fps	3.42 fps			
West entrance differential	0	1.0' - 2.0'	1.5			
Entrance weir W1	0	depth (≥ 8')	8.5			
Entrance weir W2	0	depth (≥ 8')	8.5			
Entrance weir W3	0	No criteria				
South entrance differential	0	1.0' - 2.0'	1.4			
Entrance weir S1	0	depth (≥ 8')	8.3			
Entrance weir S2	0	depth (≥ 8')	8.3			
JUVENILE PASSAGE						
Sluicelgate operation	0	Units 1, 21	3-1,3-2, 3-3,8-1,8-3, 18-2 and endgate open			
Turbine trashrack drawdown	0	<1.5', biweekly				
Spill volume/pattern	0	None				
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

OTHER ISSUES:

Birds and Sea lions:

Next to no birds on project and foraging, no sea lion spotted
Refer to avian count tab for bird activity.

Operation:

North and east adult fishways in full operation
Sluiceway open with 6 sluiceway operation (3, 8 & 18)

Current Outages;

MU1 OOS annual RTS 10/9/2018
MU2 OOS annual RTS 10/11/2018
MU5 forced OOS blade seals. RTS 1/21/2018
MU13 and MU14 OOS for line 5 outage relating to T8 transformer replace. RTS 9/10/2019
MU15 OOS transformer replacement. RTS 11/01/2018
MU16 OOS transformer replacement. RTS 6/29/2019

Maintenance

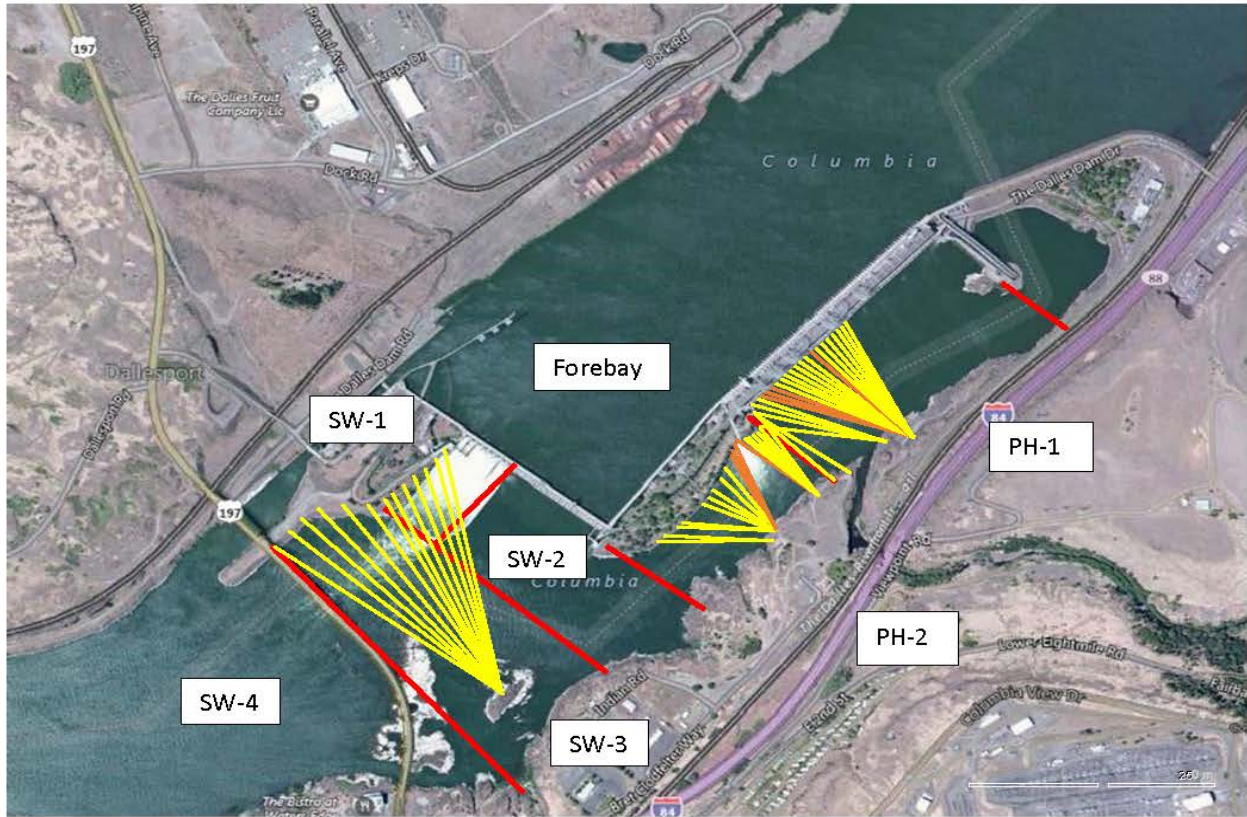
Dewatering schedule complete. East ladder dewater Dec4. North ladder dewater Jan 15. Task list provided to FPOM.
East count station brush out of service, TDE awaiting parts. Requires manual cleaning.
Collection channel dewatering pumps 3 and 4 rehab continues. Pump 4 requires pump/motor replacement. RTS by 12/1/18.
Planning 154 -157 rehab/weir wheel replace next winter. Wheel material ordered.
Diffuser valve rehab beyond project maintenance capability. Exploring options.
Fish related /non-fish funded items; Spillway assessment, spillway crane replace and spillgate 9. All awaiting funding.
All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022. Comprehensive spillway assessment review underway.

Research/Construction/Contractors:

Lower Columbia River Forebay Temperature Monitoring – Underway
AWS construction - Commissioning test potentially done with last flow test.
PSMFC weekly sampling completed for the North Wasco County PUD's. New sample collection tank design in review.
PITAGS North and east fishladder data collection at count stations continues.
Fish Counters - Continues through Oct31.
Pikeminnow dam angling - 9/24, 2018 thru 9/30, 2018, 19 for the week and 1785 YTD . **Release of invasive bass/walleye bycatch** being discussed at FPOM
ODFW monthly fishway inspections continue. No problems reported.
Lamprey minor mods - Rounded entrance weir caps installed south, west, north entrances. East weir to be complete December.
Univ of Idaho lamprey radiotelemetry track underway through November.
Lamprey trapping by tribes completed, awaiting final numbers. Project to construct lift hoist mechanism for next trapping season.
Fish unit breaker replace. - Prep work in progress. Installation 12/1/18 - 1/14/19.
Fish unit rehab - Development plan continues. Alternatives in review. Exploring potential use of AWS backup with single fish unit during construction period.
Transformer replacement - Install T8 underway (units 15 and 16). Sequence schedule modified from original

Approved by: Ron Twiner

Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

2018 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	Observer	AM/PM	Zone	Gull		Cormorant		Caspian tern		Grebe		Pelican		Other		Total birds in zone	Notes	
				F	NF	F	NF	F	NF	F	NF	F	NF	F	NF			
9/30	JED	PM	FB	0	0	0	3	0	0	0	0	0	0	0	0	0	3	overcast, cool, 15mph
			PH1	0	1	2	15	0	0	0	0	0	0	0	0	0	18	
			PH2	5	0	2	0	0	0	0	0	0	0	0	0	0	7	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW2	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
			SW3	0	1	0	22	0	0	0	0	0	0	0	0	0	23	
10/1	JED	AM	FB	0	1	3	2	0	0	2	0	0	0	0	1	0	9	GBHE
			PH1	0	0	1	21	0	0	0	0	0	0	0	0	0	22	GBHE
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mixed sun, calm
			SW1	0	0	0	0	0	0	0	0	0	0	1	0	1	1	
			SW2	1	0	1	0	0	0	0	0	0	0	0	0	0	2	2
			SW3	0	0	1	30	0	0	0	0	0	0	0	0	0	31	31
10/2	JED	PM	FB	0	0	3	0	0	0	0	0	0	0	0	0	0	3	mixed sun, wind, cool
			PH1	1	0	4	19	0	0	0	0	0	0	0	0	0	24	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
			SW2	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
			SW3	0	0	0	22	0	0	0	0	0	0	0	0	0	22	
10/3	JWR	AM	FB	0	2	1	4	0	0	0	0	0	0	0	0	0	7	
			PH1	0	0	1	8	0	0	0	0	0	0	0	0	0	9	
			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	1	0	0	0	0	0	0	0	0	0	0	1	
			SW3	0	0	2	20	0	0	0	0	0	0	0	0	0	22	
10/4	JWR	PM	FB	0	0	0	16	0	0	0	0	0	0	0	0	0	16	GBHE
			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	1	0	1		
			SW3	0	3	2	0	0	0	0	0	0	0	0	0	0	5	
10/5	JWR	AM	FB	0	0	2	0	0	0	0	7	0	0	0	0	0	9	COME
			PH1	0	0	1	3	0	0	0	0	0	0	0	0	1	5	
			PH2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
			SW2	0	0	0	0	0	0	0	0	0	0	1	0	1		
			SW3	0	0	0	12	0	0	0	0	0	0	0	0	0	12	
10/6	JWR	PM	FB	0	0	0	0	0	0	19	0	0	0	0	0	0	19	COME
			PH1	0	0	1	12	0	0	0	0	0	0	0	0	5	18	
			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	

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

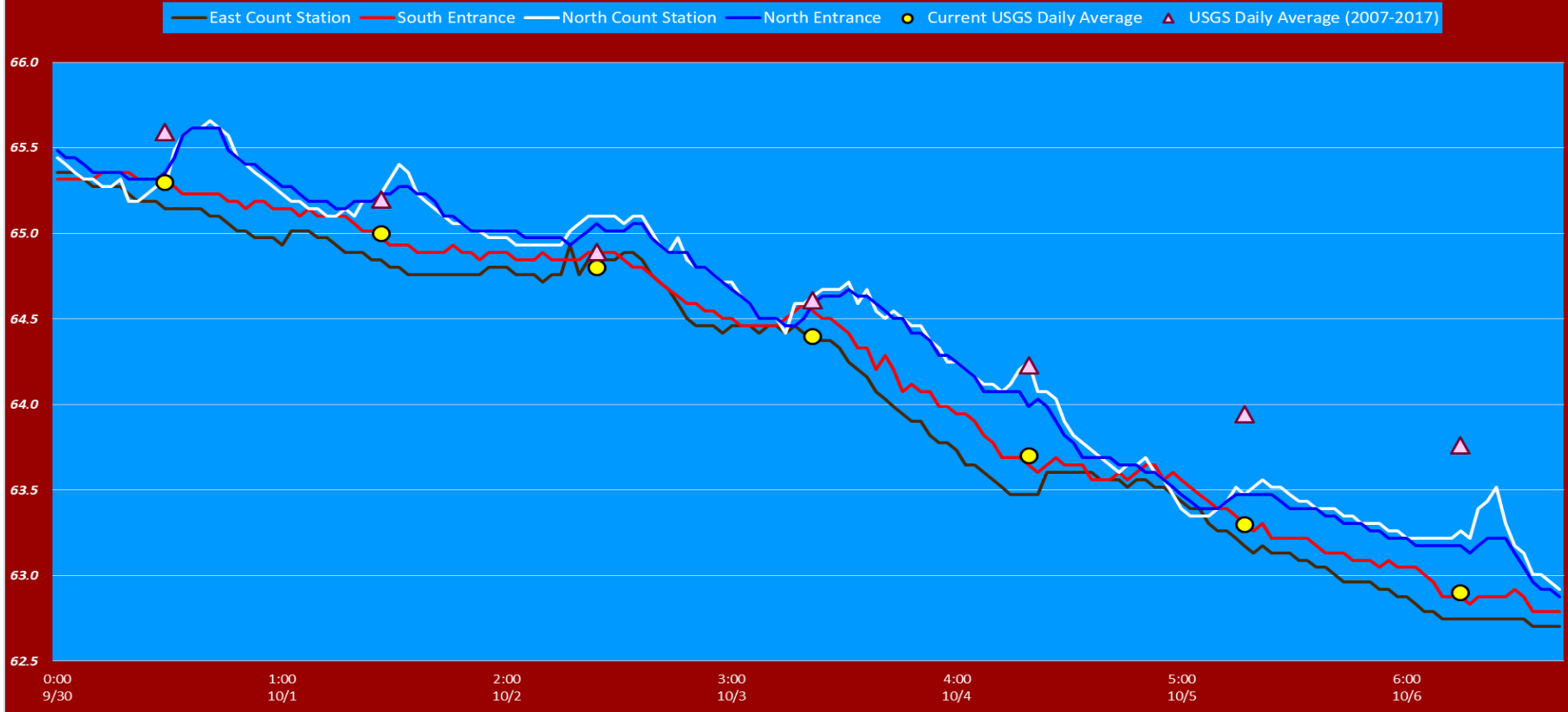
The Dalles East

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	All Coho	Adult Coho	Jack Coho	Sockeye	Chum	Pink	Lamprey
9/30	1541	1213	328	713	552	161	104	85	19	0	0	0	1
10/1	1536	1337	199	811	569	242	192	151	41	0	0	0	2
10/2	3002	2348	654	770	574	196	193	174	19	0	0	0	0
10/3	1403	1159	244	600	449	151	211	187	24	1	0	0	2
10/4	1021	770	251	543	410	133	126	118	8	0	0	0	0
10/5	898	672	226	376	282	94	72	50	22	0	0	0	1
10/6	687	478	209	511	371	140	72	66	6	0	0	0	0
total	10088	7977	2111	4324	3207	1117	970	831	139	1	0	0	6

The Dalles North

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	All Coho	Adult Coho	Jack Coho	Sockeye	Chum	Pink	Lamprey
9/30	63	29	34	133	86	47	14	13	1	2	0	0	0
10/1	41	35	6	99	71	28	7	6	1	0	0	0	0
10/2	178	134	44	111	82	29	29	25	4	0	0	0	0
10/3	120	96	24	150	119	31	14	10	4	0	0	0	1
10/4	25	19	6	33	23	10	6	5	1	0	0	0	0
10/5	66	40	26	63	47	16	6	5	1	0	0	0	1
10/6	28	17	11	58	40	18	3	4	-1	0	0	0	0
total	521	370	151	647	468	179	79	68	11	2	0	0	2
% North	4.9	4.4	6.7	13.0	12.7	13.8	7.5	7.6	7.3	66.7	0.0	0.0	25.0

The Dalles Dam Adult Fish Ladder(s) River Temperatures



	Secchi:		USGS: Temperatures
9/30	6.0	Sun	65.3
10/1	5.0	Mon	65.0
10/2	5.0	Tue	64.8
10/3	5.0	Wed	64.4
10/4	5.0	Thurs	63.7
10/5	5.0	Fri	63.3
10/6	5.0	Sat	62.9
	5.1	AVG	64.2

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

SCADA INSPECTION
= Out of criteria

Date:	North Ladder			East Ladder										
	North Entrance		Differential	East Entrance				West Entrance			South Entrance			
	Differential	N1 Depth		E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth
9/30			1.5		13.5	13.5	10.2	1.4	8.5	8.5		1.4	8.3	8.4
	1.3	9.3	1.6		13.7	13.6	10.3	1.5	8.6	8.6		1.4	8.4	8.3
	1.3	9.3	1.6		13.5	13.3	10.5	1.5	8.6	8.6		1.3	8.3	8.4
10/1			1.6		13.5	13.5	10.0	1.4	8.5	8.5		1.4	8.2	8.2
	1.3	9.1	1.5		13.5	13.5	10.2	1.5	8.5	8.5		1.3	8.4	8.4
	1.3	9.2	1.4		13.7	13.7	10.7	1.5	8.5	8.4		1.4	8.3	8.3
10/2			1.6		13.4	13.4	10.1	1.4	8.4	8.4		1.4	8.3	8.3
	1.4	9.1	1.5		13.4	13.4	10.4	1.5	8.4	8.4		1.4	8.2	8.2
	1.3	8.6	1.5		13.5	13.4	10.3	1.4	8.7	8.7		1.4	8.2	8.2
10/3			1.8		13.5	13.5	9.4	1.5	8.4	8.4		1.4	8.3	8.3
	1.3	9.1	1.6		13.6	13.6	9.9	1.4	8.6	8.6		1.3	8.3	8.3
	1.2	9.2	1.5		13.4	13.4	10.9	1.4	8.6	8.6		1.4	8.2	8.2
10/4			1.5		13.5	13.5	10.7	1.5	8.4	8.4		1.4	8.3	8.3
	1.3	9.2	1.5		13.5	13.5	10.1	1.5	8.5	8.5		1.5	8.2	8.2
	1.3	9.1	1.6		13.5	13.5	10.1	1.5	8.4	8.4		1.3	8.4	8.4
10/5			1.5	13.4	13.6	10.7	1.5	8.3	8.4	1.4	8.3	8.2		
	1.3	9.2	1.5	13.4	13.6	10.8	1.6	8.3	8.4	1.4	8.4	8.3		
	1.3	9.3	1.5	13.5	13.5	10.6	1.4	8.4	8.4	1.5	8.4	8.4		
10/6			1.6	13.5	13.5	10.0	1.4	8.4	8.4	1.4	8.3	8.3		
	1.3	9.2	1.5	13.6	13.6	10.1	1.5	8.5	8.4	1.4	8.3	8.4		
	1.3	9.1	1.6	13.6	13.6	10.1	1.4	8.4	8.4	1.4	8.3	8.3		
AVG:	1.3	9.1	1.5		13.5	13.5	10.3	1.5	8.5	8.5		1.4	8.3	8.3

Fishways are inspected twice daily plus one SCADA inspection.



Lone gull posing on Forebay wall, very light avian activity