

The Dalles Dam Fishway Status Report

8/12/2017

Inspection Period: 08/06/2017-08/12/2017

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: Comments	19	Temperature: Secchi:	73.3 °F 5.0 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')	10.3			
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	Auto adjusts 1' increments	Work cleaning circuit boxes performed.		
Weir 158-159 differential	0	1.0' ± 0.1'	158	callibrated and adjusted.		
Count station differential	0	≤ 0.3'	Picket leads	raked as needed. Debris load light.		
Weir crest depth	0	1.0' ± 0.1'				
Junction pool weir JP6	0	depth (≥ 7')	10.0			
East entrance differential	0	1.0' - 2.0'	1.4			
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	11.4			
Entrance weir E3	0	depth (≥ 8')	11.3			
Collection channel velocity	0	1.5 - 4 fps	2.58			
Transportation channel velocity	0	1.5 - 4 fps	2.32			
North channel velocity	0	1.5 - 4 fps	2.29			
South channel velocity	0	1.5 - 4 fps	2.98			
West entrance differential	0	1.0' - 2.0'	1.5			
Entrance weir W1	0	depth (≥ 8')	8.7			
Entrance weir W2	0	depth (≥ 8')	8.7			
Entrance weir W3	0	No criteria				
South entrance differential	0	1.0' - 2.0'	1.4			
Entrance weir S1	0	depth (≥ 8')	8.4			
Entrance weir S2	0	depth (≥ 8')	8.4			
JUVENILE PASSAGE						
Sluicgate operation	0	Units 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', wkly	range: 0.1-0.8'			
Spill volume/pattern	0					
Turbine Unit Priority	1	per FPP	Low flow			
Turbine 1% Efficiency	0	per FPP				

OTHER ISSUES:

Birds/Sea lions:

No sea lions observed this week. Overall bird numbers down from last week, but juvenile gull numbers increasing. Work continues exploring better gull abatement options with recent PIT data from Miller Island gull colony.

Operations:

North and east fishladders in full operation.
Spillway open 40% river flow for fish passage through spillgates 1-8.
Sluiceway open with 6 gates (units 1, 8 and 18)

Current Outages;

T8 (MU15 & MU16) out for transformer failure. Transformer replacement 7/5/18.

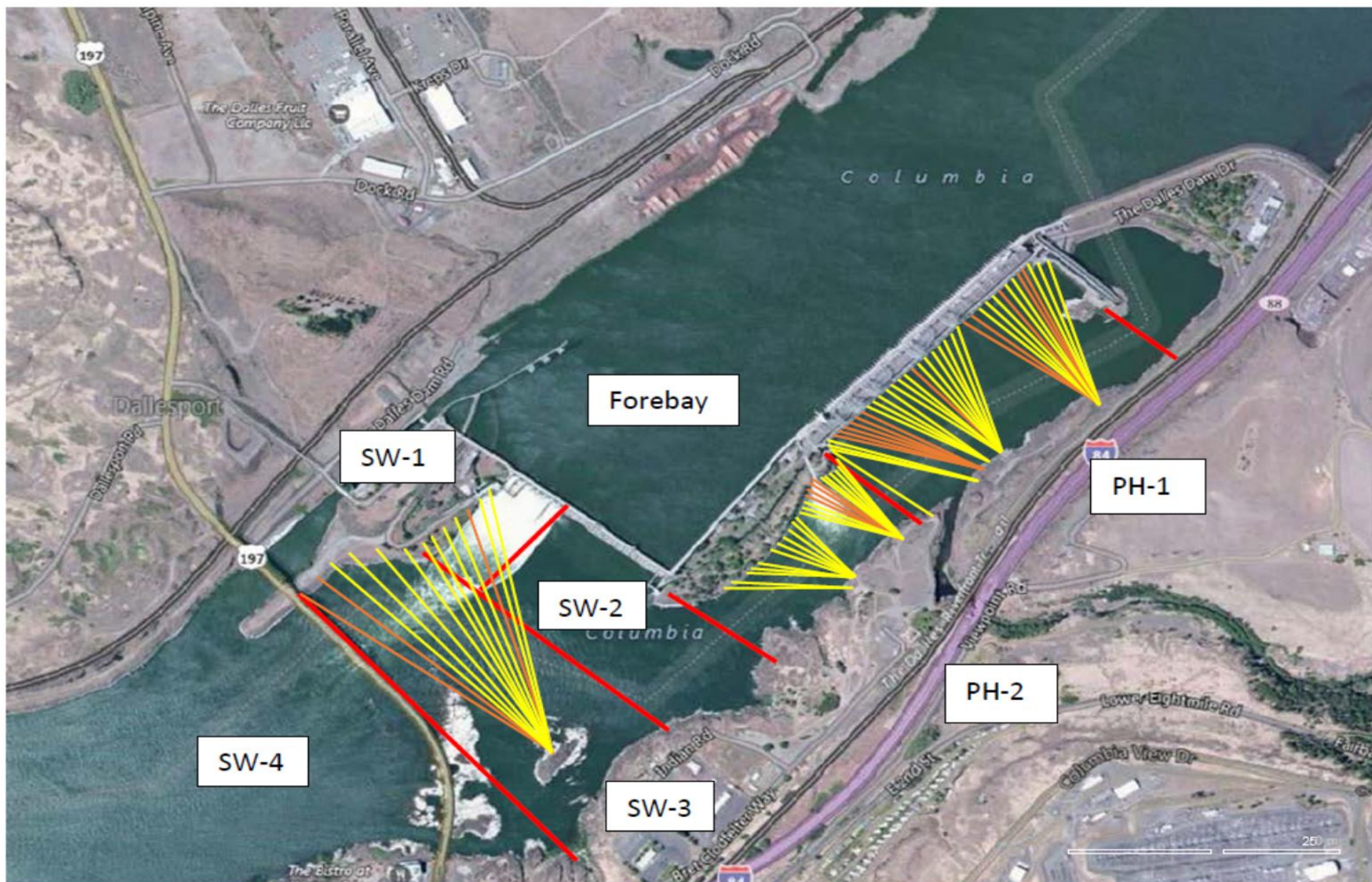
Maintenance;

All fishway entrance gratings inspected by ROV on 8/8. All grating observed in good condition.
East powerhouse avian line grid to be removed due to electrical shock hazard from induced voltage. FPOM approved. Avian predation monitoring to continue.
East exit weir electrical panel FCQ7 partially installed. Engineering design continues before further installation. Starting CADD drawings.
PUD crane rake repainting beginning. Prep work and part dismantling underway.
Rebuilding spare entrance weir gearbox.
Removal of derelict fish lock weir gearboxes started.
Designing fish lock upper and lower bulkhead replacement with concrete for improved isolation and fishladder protection.
Planning crane pad for north ladder dewatering access. Awaiting cultural approval. Material purchased.
Modifying sturgeon tank for improved fish salvage.
Other repair maintenance plans for upcoming fiscal years; 154 -157 rehab/weir wheel replace, diffuser valve overhaul (rehab and decommission).
Fish related /non-fish funded items; Spillway assessment, spillway crane replace and spillgate 9, both awaiting funding.
All spillway items on Critical Infrastructure. Spillgate 9 on large cap list, projected for 2022.

Research/Construction/Contractors:

USDA completed avian hazing concluded July 31.
Temperature profiling study by District Aug and Sept postponed until next year.
Pikeminnow dam angling - 73 removed this week, 1530 through 8/13. All from west powerhouse tailrace.
AWS construction - Planning for season 2 schedule. Requesting extensions to work outside in water work period. Commissioning plan underway for 3/18.
CTUIR completed allotted number of lamprey trapped (600 fish) in 7 days, Trapping continues for Yakama (only 31 to go) and Nez Perce.
Lamprey minor mods - Rounded entrance weir cap parts for all entrances ordered. Tribal lamprey trap hoist design complete. Fab FY17 and install FY18.
Railroad track removal - Lower west powerhouse asphalt expected end of July. Tailrace deck start Nov nights (FPOM approved)
Fish unit breaker replace.- Manufacture this summer and install fall 2017. Switchover Jan 2018.
Fish unit rehab - Phase 1A report Jan 2018. Award 2020. Completion 2022. ROV inspection of fish unit discharge to AWS. Minimal concrete damage.
Transformer replacement - Install start May 2018.

Approved by: Ron Twiner
Operation Project Manager The Dalles Dam



Red lines = avian zones

Yellow lines = current wires

Orange lines = down or missing wires

2017 Piscivorous Bird Counts

F=foraging, NF=non-foraging

Date	observer	time	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		
8/6	JWR	AM	FB	0	0	0	141	0	0	0	2	0	0	0	0	143	
			PH1	0	0	0	1	0	0	0	0	0	0	0	0	1	
			PH2	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	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	13	21	1	0	0	0	0	0	0	0	0	0	35	
			SW4	16	3	0	0	0	0	0	0	0	0	0	0	19	
8/7	JWR	PM	FB	0	4	5	36	0	0	2	0	0	0	0	47		
			PH1	0	0	0	12	0	0	0	0	0	0	0	12		
			PH2	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW1	0	2	0	0	0	0	0	0	0	0	0	0		2
			SW2	0	0	1	0	0	0	0	0	0	0	0	0		1
			SW3	5	5	1	0	0	0	0	0	0	0	0	0		11
			SW4	2	3	0	5	0	0	0	0	0	0	0	4		14
8/8	rov fishway gratings																
8/9	GJF	PM	FB	0	0	0	16	0	0	0	0	0	0	0	0	16	
			PH1	0	0	2	4	0	0	0	0	0	0	0	0	6	
			PH2	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	
			SW2	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	2	
			SW4	0	0	0	3	0	0	0	0	0	0	0	0	3	
8/10	GJF	AM	FB	0	1	3	21	0	0	0	0	0	0	0	25		
			PH1	0	1	1	5	0	0	0	0	0	0	0	0		7
			PH2	0	0	1	0	0	0	0	0	0	0	0	0		1
			SW1	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
			SW3	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW4	0	0	0	2	0	0	0	0	0	0	0	0		2
8/11	GJF	PM	FB	0	2	1	14	0	0	0	0	0	0	0	17		
			PH1	0	1	1	3	0	0	0	0	0	0	0	0		5
			PH2	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
			SW2	0	0	0	0	0	0	0	0	0	0	0	0		0
			SW3	2	4	1	2	0	0	0	0	1	1	0	0		11
			SW4	0	0	0	2	0	0	0	0	2	5	0	0		9
8/12	PM	AM	FB	0	0	0	37	0	0	0	0	0	0	0	37		
			PH1	0	0	0	12	0	0	0	0	0	0	0	12		
			PH2	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
			SW2	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
SW4	4	0	0	0	0	0	0	0	0	0	0	0	4				

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

The Dalles East

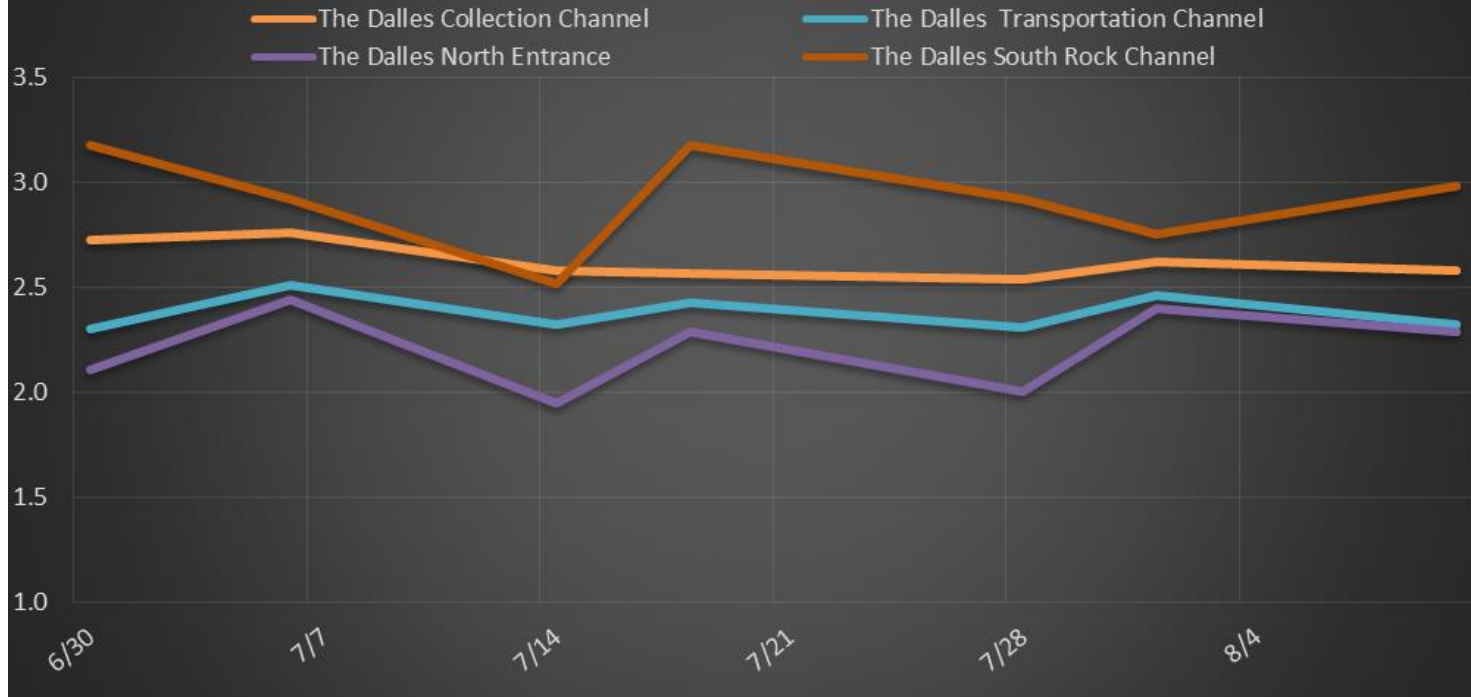
Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	All Coho	Adult Coho	Jack Coho	Sockeye	Chum	Pink	Lamprey
8/6	124	108	16	85	41	44	0	0	0	2	0	0	96
8/7	103	78	25	102	53	49	0	0	0	7	0	0	77
8/8	71	58	13	54	29	25	0	0	0	6	0	0	86
8/9	117	92	25	85	47	38	0	0	0	5	0	0	119
8/10	85	71	14	78	44	34	0	0	0	5	0	0	150
8/11	96	80	16	50	25	25	0	0	0	5	0	0	200
8/12	142	104	38	47	23	24	0	0	0	2	0	0	319
total	738	591	147	501	262	239	0	0	0	32	0	0	1047

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
8/6	20	18	2	40	22	18	0	0	0	4	0	0	22
8/7	37	30	7	47	23	24	0	0	0	4	0	0	70
8/8	23	19	4	69	40	29	0	0	0	2	0	0	118
8/9	38	34	4	35	12	23	0	0	0	2	0	0	85
8/10	21	20	1	27	17	10	0	0	0	1	0	0	121
8/11	18	16	2	10	4	6	0	0	0	0	0	0	47
8/12	30	23	7	17	7	10	0	0	0	2	0	0	155
total	187	160	27	245	125	120	0	0	0	15	0	0	618
% North	20.2	21.3	15.5	32.8	32.3	33.4	0.0	0.0	0.0	31.9	0.0	0.0	37.1

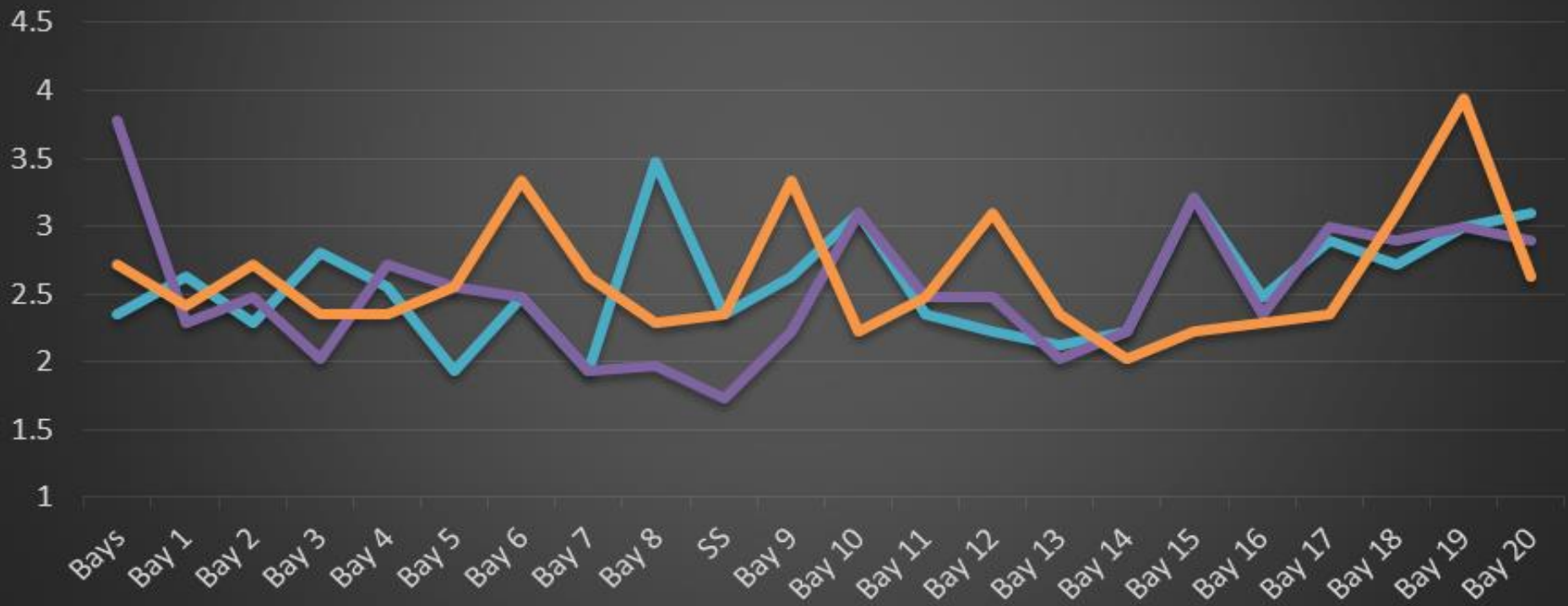
http://www.fpc.org/environment/fcounts.asp?fr_cdy=2017&fr_cdm=8&fr_cdd=6&to_cdm=8&to_cdd=12&subbtn=salmon&op=sdaily

The Dalles Dam Average Velocities (In criteria 1.5 - 4.0 fps)

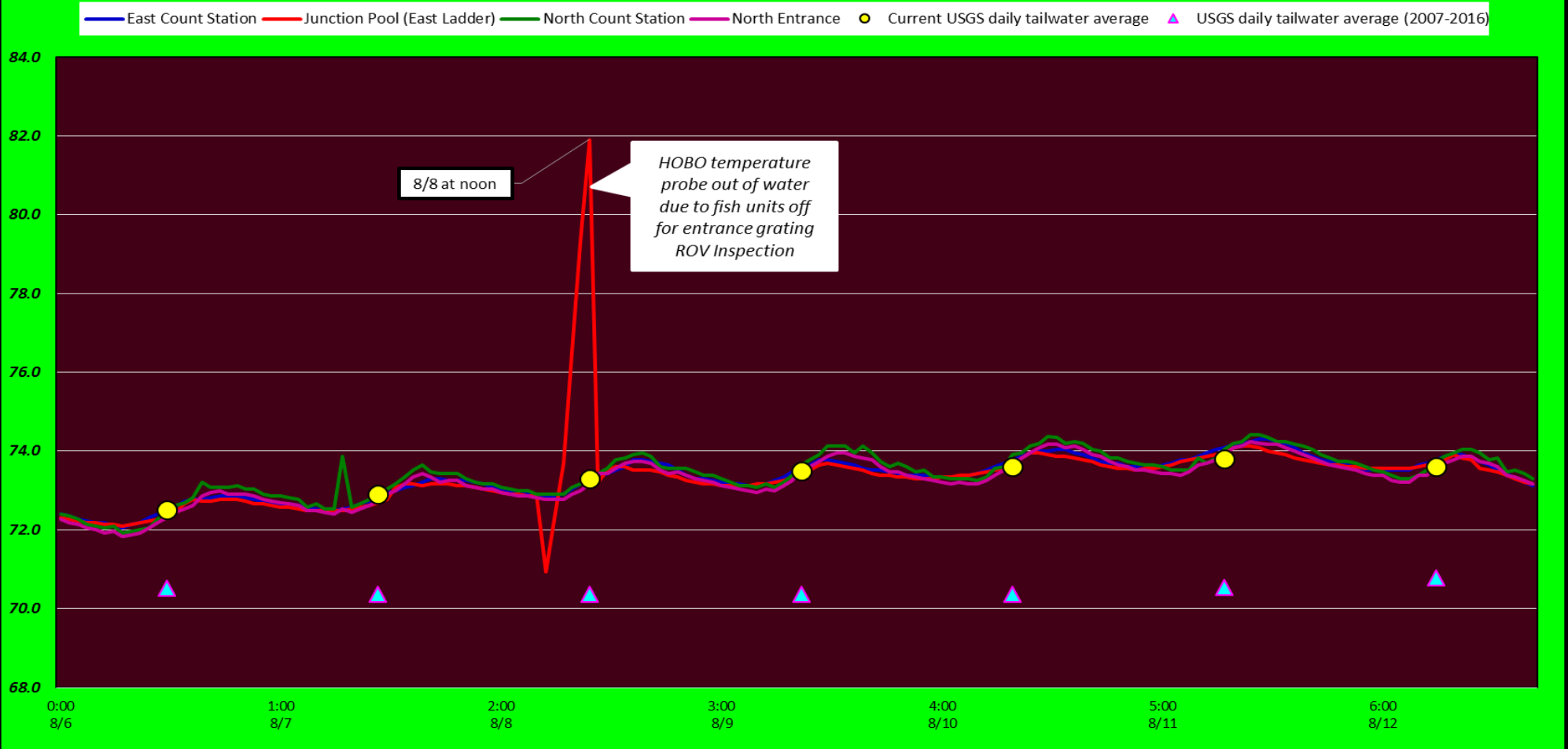


The Dalles Dam Collection Channel Velocities (In Criteria 1.5 - 4.0 fps)

10-Aug 28-Jul 1-Aug



The Dalles Dam Adult Fish Ladder(s) River/Water Temperatures



USGS: http://www.nwd-wc.usace.army.mil/tml/documents/ops/temp/201708_lcol.html

Secchi:		Temperatures
8/6	5.0	Sun 72.5
8/7	5.0	Mon 72.9
8/8	5.0	Tue 73.3
8/9	5.0	Wed 73.5
8/10	5.0	Thurs 73.6
8/11	5.0	Fri 73.8
8/12	5.0	Sat 73.6
	5.0	AVG 73.3

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

= Out of criteria

Spill link
http://www.nwd-wc.usace.army.mil/dd/nwdp/project_hourly/webexec/rep?r=tda&ago=0

Date:	North Ladder			East Ladder										24 hr avg							
	North Entrance		East Entrance				West Entrance			South Entrance											
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1 Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth							
8/6			1.2	NO CRITERIA	11.8	11.8	9.9	1.2	9.2	9.2	NO CRITERIA	1.4	8.2	8.2	40.0						
	1.4	10.4	1.5		11.8	11.8	10.1	1.5	8.7	8.7		1.5	8.2	8.2							
	1.3	10.6	1.6		11.5	11.5	10.4	1.5	8.9	8.9		1.5	8.2	8.2							
8/7			1.1		NO CRITERIA	11.5	11.5	9.3	1.3	8.9		8.9	NO CRITERIA	1.4	8.3	8.3	40.2				
	1.4	10.4	1.6			10.8	10.8	9.5	1.6	8.4		8.4		1.4	8.2	8.2					
	1.3	10.0	1.6			10.8	10.8	9.5	1.6	8.4		8.4		1.4	8.2	8.2					
8/8			1.3			NO CRITERIA	11.6	11.6	9.2	1.4		8.6		8.6	NO CRITERIA	1.3	8.3	8.3	40.0		
	ROV						ROV							ROV							
8/9			1.7				NO CRITERIA	11.0	11.0	10.2		1.5		8.7		8.7	NO CRITERIA	1.3	8.7	8.7	39.8
	1.3	10.0	1.5					11.0	11.0	10.1		1.4		8.7		8.7		1.4	8.4	8.4	
	1.3	10.1	1.6					11.5	11.5	11.8		1.6		8.6		8.6		1.4	8.5	8.4	
8/10			1.2					NO CRITERIA	11.5	11.5		9.6		1.5		8.8		8.8	NO CRITERIA	1.2	8.5
	1.4	10.1	1.2	11.5					11.4	9.3	1.5	8.6		8.6		1.3		8.4		8.4	
	1.3	10.3	1.6	11.5					11.5	11.8	1.4	8.6		8.6		1.4		8.5		8.4	
8/11			1.4	NO CRITERIA					11.5	11.5	10.2	1.5		8.7		8.7		NO CRITERIA		1.4	8.4
	1.3	10.1	1.3		11.5				11.5	9.8	1.4	8.7	8.7	1.3		8.5				8.5	
	1.4	10.4	1.5		10.5				10.4	10.0	1.4	8.6	8.6	1.3		8.4				8.4	
8/12			1.2		NO CRITERIA				11.5	11.5	9.8	1.4	8.7	8.7		NO CRITERIA				1.3	8.5
	1.2	10.4	1.2			11.4			11.4	9.4	1.4	8.7	8.7	1.2	8.6					8.6	
	1.3	10.3	1.4			11.5			11.5	10.2	1.5	8.7	8.7	1.3	8.5					8.5	
AVG:	1.3	10.3	1.4			NO CRITERIA	11.4		11.3	10.0	1.5	8.7	8.7	NO CRITERIA	1.4		8.4			8.4	40.0

Fishways are inspected twice daily plus one SCADA inspection.

South Entrance

+ 1 6 1 0 - 4 5 8 - 3 0 0 0



⏻ MENU SELECT ◀ ▶

North Entrance

