

The Dalles Dam Fishway Status Report

04/27/19

Inspection Period: April 21 - April 27, 2019

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: Comments: Fish units back in service.	Temperature: Secchi:
			21	51.9 °F 1.5 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'	1.4	
Entrance weir N1	0	depth (≥ 8')	10.0	
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	1	1.1' ± 0.1'	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	2.22fps on 4/25	
Transportation channel velocity	0	1.5 - 4 fps	2.45fps on 4/25	
North channel velocity	0	1.5 - 4 fps	1.50 fps on 4/27 high tailwater.	
South channel velocity	0	1.5 - 4 fps	2.39fps on 4/25	
West entrance differential	1	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')		
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 8, 18;		
Turbine trashrack drawdown	0	<1.5', biweekly	Gatewells inspection 4/25/19.	
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. Testing laser deterrence for gulls loafing on rocks.

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 Annual. RTS 5/23/19

MU4 OOS Overhaul. RTS 5/23/19

MU5 FOOS bladeseals and T3 GSU transformer replacement and Overhaul. RTS 7/17/19

MU6 OOS T3 GSU transformer replacement. RTS 7/12/19

T10(MU19 & 20) FOOS through 10/28/21 due to acetylene levels

MU21 FOOS for Gov failure. RTS 4/29/19

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 in May. Install winter of 2019/20

Diffuser valve status evaluation by engineering underway to help determine rehab plan.

Contract for goats to remove vegetation on top side of north ladder and south channel May 16.

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 until contractor starts. Visibility improving, fish numbers increasing.

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 PCMFC weekly sample report.

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

Fish Counters - Contractor 4 Peaks scheduled to begin 5/6. 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.

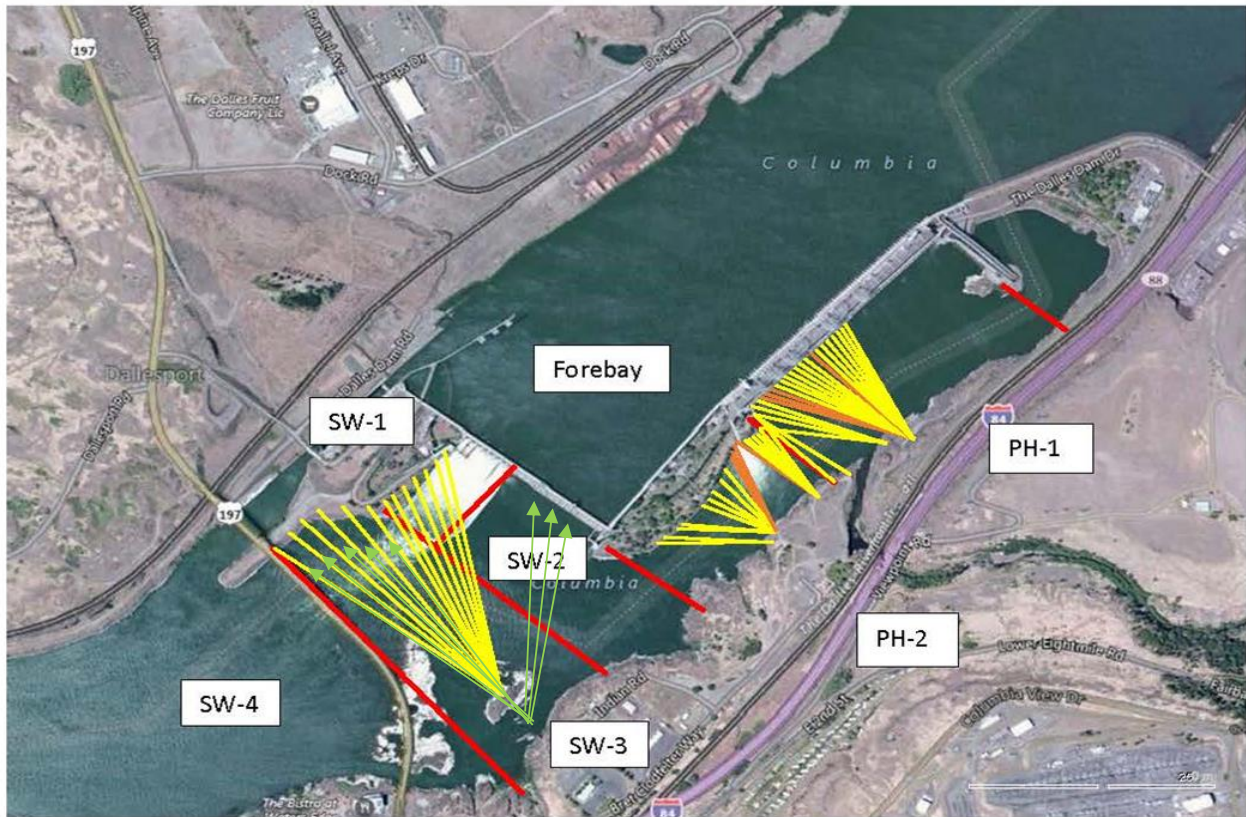
Univ of Idaho lamprey radiotelemetry - Second season of lamprey passage night flow reduction test to resume in May.

Tribal lamprey trapping - Materials and plans on hand. Install awaiting FPOM approval.

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

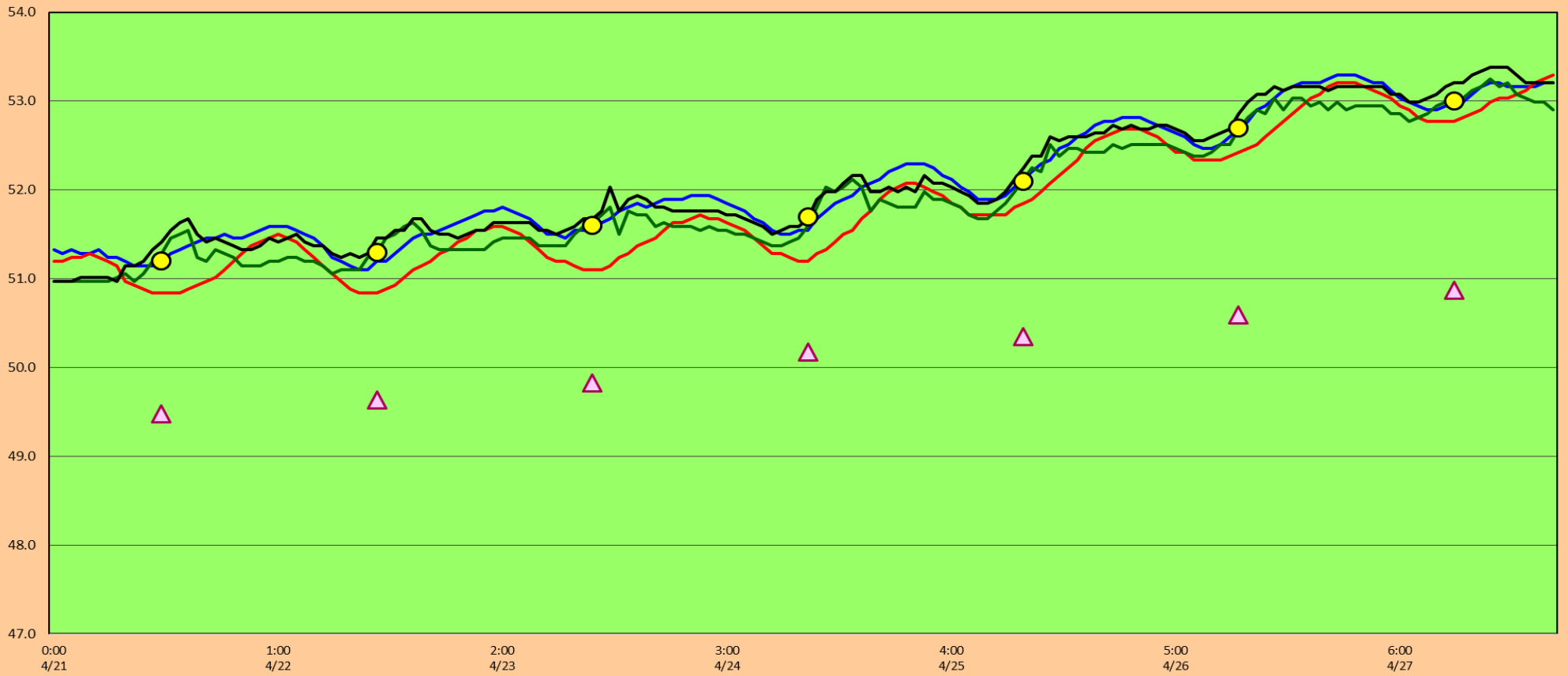
F=foraging, NF=non-foraging

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			
4/21/19	JWR	PM	FB	0	0	1	31	0	0	0	0	0	0	0	0	0	32	
			PH1	0	0	0	2	0	0	0	0	0	0	0	0	0	2	
			PH2	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
			SW1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	
			SW2	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
			SW3	9	0	0	0	0	0	0	0	0	0	0	0	0	9	
4/22/19	JWR	AM	FB	0	0	1	45	0	0	0	0	0	0	0	0	46		
			PH1	2	0	0	0	0	0	0	0	0	0	0	0	2		
			PH2	3	0	0	0	0	0	0	0	0	0	0	0	3		
			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	4	0	0	0	0	0	0	0	0	0	0	0	0	4	
4/23/19	JED	PM	FB	0	0	2	23	0	0	0	0	0	0	0	0	25		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Mixed sun, wind 10mph E, 58F
			PH2	3	0	0	0	0	0	0	0	0	0	0	0	3		
			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	
4/24/19	JWR	AM	FB	2	0	0	35	0	0	0	0	0	0	0	0	37		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			PH2	3	0	0	0	0	0	0	0	0	0	0	0	3		
			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	4	12	0	0	0	0	0	0	0	0	0	0	0	16	
4/25/19	CEA	PM	FB	0	0	0	31	0	0	0	0	0	0	0	0	31		
			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	2	2	Osprey	
			SW1	0	0	0	0	0	0	0	0	0	0	0	1	1	Osprey	
			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	1	1	sunny, calm, 65F
4/26/19	CEA	AM	FB	0	0	0	22	0	0	0	0	0	0	0	0	22		
			PH1	0	0	0	0	0	0	0	0	0	0	0	1	1	Osprey	
			PH2	3	0	1	0	0	0	0	0	0	0	0	0	4	4	
			SW1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	sunny, windy, 65F
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	3	0	0	0	0	0	0	0	0	0	0	0	3	3	
4/27/19	CEA	PM	FB	0	0	0	31	0	0	0	0	0	0	0	0	31		
			PH1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	partly sunny, very windy, 60F
			PH2	2	0	0	0	0	0	0	0	0	0	0	0	2	2	
			SW1	0	0	0	0	0	0	0	0	0	0	0	1	1	Osprey	
			SW2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			SW3	7	0	0	0	0	0	0	0	0	0	0	0	7	7	
SW4	55	0	0	0	0	0	0	0	0	0	0	0	55	55				

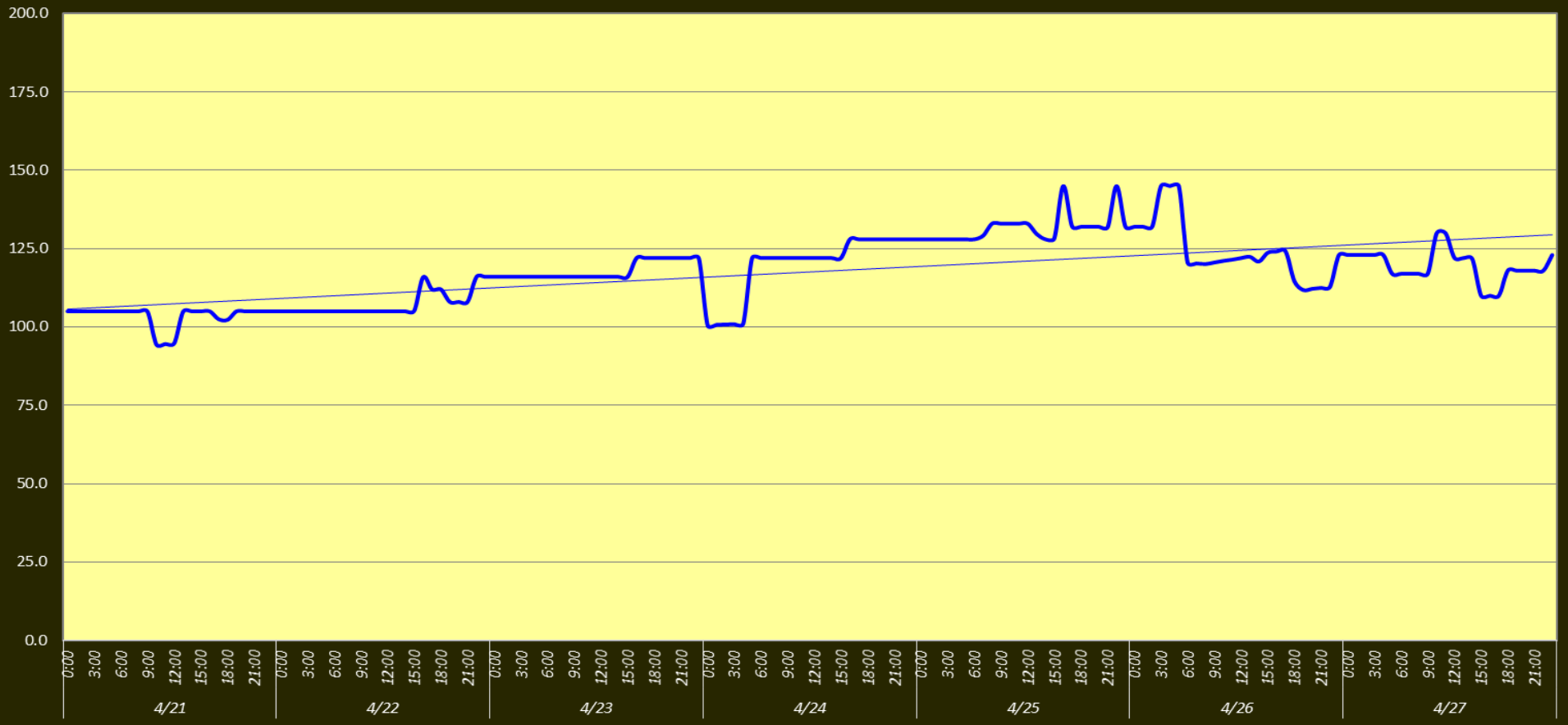
Key: BAEA = Bald Eagle; GBHE = Great Blue Heron; COME = Common Merganser

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 (2007-2018)



Spill kcfs



Secchi:		USGS:	Temperatures
4/21	1.5	Sun	51.2
4/22	1.5	Mon	51.3
4/23	1.5	Tue	51.6
4/24	1.5	Wed	51.7
4/25	1.5	Thurs	52.1
4/26	1.5	Fri	52.7
4/27	1.5	Sat	53.0
	1.5	AVG	51.9

[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
4/21			1.5		13.6	13.6	12.0	1.0	8.3	8.3		1.2	8.2	8.2
	1.4	10.1	1.5		13.6	13.6	12.4	1.0	8.1	8.1		1.2	8.2	8.2
	1.4	10.0	1.6		13.4	13.4	13.0	1.1	8.1	8.1		1.3	8.1	8.1
4/22			1.6		13.4	13.4	14.1	1.2	8.1	8.1		1.2	8.2	8.3
	1.4	9.9	1.5		13.4	13.4	14.1	1.1	8.1	8.1		1.2	8.3	8.3
	1.4	10.0	1.6		13.4	13.4	14.5	1.1	8.1	8.1		1.2	8.1	8.1
4/23			1.6		13.5	13.5	15	1.1	8.2	8.2		1.3	8.2	8.2
	1.4	9.9	1.7		13.4	13.4	15.1	1.2	8	8		1.3	8.1	8.1
	1.4	10.0	1.7		13.5	13.5	15.2	1.2	8	8		1.3	8.2	8.2
4/24			1.8		13.5	13.5	16	1.3	8.2	8.2		1.3	8.3	8.3
	1.4	10.0	1.5		13.5	13.5	11.4	0.9	8.2	8.2		1.1	8.3	8.3
	1.4	9.9	1.8		13.5	13.5	16.7	1.3	8.1	8.1		1.5	8.1	8
4/25			1.7		13.5	13.5	16.9	1.4	8.1	8.1		1.3	8.2	8.2
	1.4	9.9	1.8		13.4	13.5	16.9	1.3	8.1	8.1		1.4	8.2	8.2
	1.4	10.0	1.7		13.4	13.4	16.6	1.3	8.1	8.1		1.3	8.2	8.1
4/26			1.6		13.5	13.4	15.6	1.3	8	8		1.4	8.2	8.1
	1.4	10.0	1.8		13.5	13.5	14.8	1.3	8.1	8.1		1.3	8.1	8.1
	1.3	10.0	1.6		13.4	13.4	14.9	1.3	8.1	8.1		1.2	8.3	8.2
4/27			1.8		13.8	13.7	15.2	1.3	8.2	8.2		1.2	8.3	8.3
	1.4	10.0	1.7		13.6	13.5	15.6	1.2	8.3	8.3		1.3	8.3	8.3
	1.4	10.1	1.7		13.4	13.4	14.6	1.3	8	8		1.2	8.2	8.1
AVG:	1.4	10.0	1.7		13.5	13.5	14.8	1.2	8.1	8.1		1.3	8.2	8.2

Fishways are inspected twice daily plus one SCADA inspection.