

The Dalles Dam Fishway Status Report

7/11/2015

Inspection Period: 7/5/2015 - 7/11/2015

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
P.O. Box 564
The Dalles, OR 97058-9998
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Fishways are inspected twice daily plus one SCADA inspection

The Dalles Dam	Inspections Out of Criteria	Criteria Limit	Total Number of Inspections: 21		Temperature: 72.9	F
			Comments		Secchi: 4.9	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	9.3		
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'	Currently at 1.3' for shad passage			
Junction pool weir JP6	1	depth (≥ 7')	Average	7.7	Weir pulled ot achieve criteria with low tailwater	
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	11.2		
Entrance weir E3	0	depth (≥ 8')	Average	11.2		
Collection channel velocity	0	1.5 - 4 fps	Average	3.0		
Transportation channel velocity	0	1.5 - 4 fps	Average	2.8		
North channel velocity	0	1.5 - 4 fps	Average	2.2		
South channel velocity	0	1.5 - 4 fps	Average	3.9		
West entrance differential	0	1.0' - 2.0'	Average	1.5		
Entrance weir W1	0	depth (≥ 8')	Average	9.4		
Entrance weir W2	0	depth (≥ 8')	Average	9.4		
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	8.2		
Entrance weir S2	0	depth (≥ 8')	Average	8.2		
JUVENILE PASSAGE						
Sluiceway operation	0	Units 1, 8, 18	Sluiceways 1-1,2,3, 8-1,2, and 18-2 open			
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.4' - 0.8'			
Spill volume	0	40%±1%	Average	40.1		
Spill Pattern	0	per FPP				
Turbine Unit Priority.	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

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

Bird observation data collected once daily. Refer to Avian Zone Map. No sea lions observations this week.

Gull predation upstream and downstream of bridge and within avian lines. Boat hazing 7/9 and 7/10, boat returning 7/13. see avian zone map.

Boat and non boat hazing days will be compared for future hazing management decisions.

Operations:

All fishways are in full operation as specified in the Fish Passage Plan. All automation systems are working successfully.

Gatewell drawdown completed on 7/6. All values were within criteria.

Calibration completed 7/10 this week. A few minor discrepancies, TDE notified

Current Outages:

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

Maintenance:

Preparing workload list for upcoming winter maintenance period, including; entrance weir wheel replace, entrance weir guide repair.

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. Installation next outage season pending funding.

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

Fish related /non-fish funded items; spillway evaluation, spillway crane rehab, spillgate 9 trunnion pin replace, fish unit breaker and transformer replace.

All spillway items on Critical Infrastructure list and Unfunded Requirement list. Spill gate 9 repair planning underway through small projects team.

Studies:

North fishladder rehab study for rock wall 60% DDR review. Construction dates to be determined. Alternatives to be presented to FPOM.

Fish count video at north count station recording started. IR light testing underway.

East fishladder backup system construction start this winter. FPOM coordination completed.

Crane rail replacement on tailrace and intake decks winter of 2016-2017. FPOM coordination completed.

Transformer replacement planning underway. Plans include elimination of TA transformers with fish unit tie through T1 with another tie for backup.

Research/Contractors:

USDA gull hazer's are on their last month of contract. Hazing efforts have minimal effectiveness below spillway. Boat hazing seems more effective.

Columbia River Northern Pikeminnow Management Program dam angling 7/5; total for week NPM \geq 230mm - 81, YTD NPM \geq 230mm - 3,340.

ODFW collecting biological data from harvested pikeminnow.

Fish counters at east and north count stations 16 hr/day.

PSMFC Wasco Co PUD weekly samplings.

CRITFC and member tribes (YN, CTUIR, and NPT) trapping adult pacific lamprey starting 6/30.

Yakama Nation tribal collection allocations for 2015; total YTD - 47, remaining - 403.

PSMFC monitoring and maintaining thin walled PIT tag antennas and computer equipment. No issues.

USGS total dissolved gas monitoring continues.

Approved by: Ron Twiner

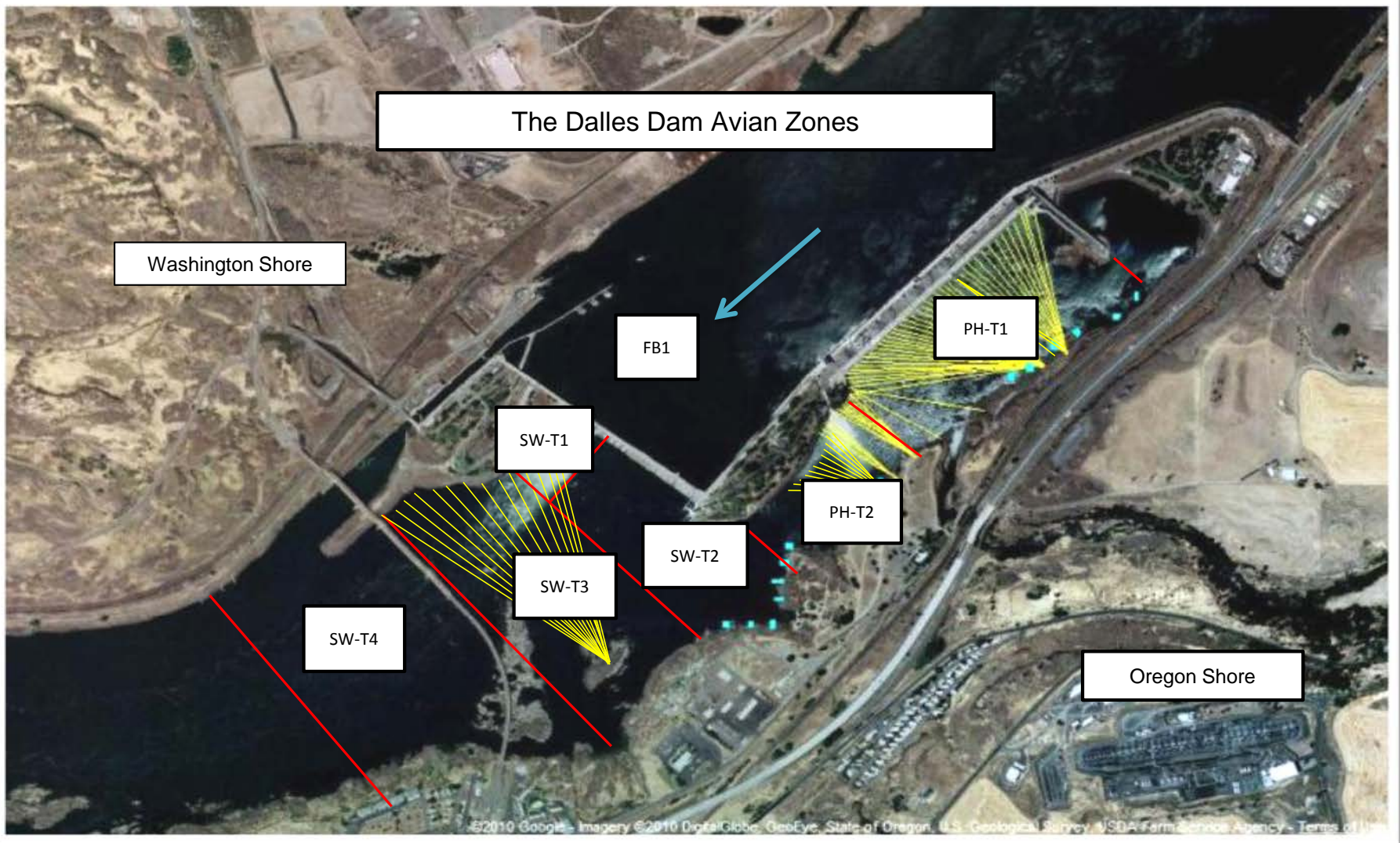
Operation Project Manager The Dalles Dam

The Dalles East

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	Sockeye	Lamprey
7/5	1945	1801	144	171	58	113	5231	92
7/6	1323	1106	217	163	59	104	4406	77
7/7	802	671	131	150	41	109	4328	83
7/8	654	578	76	107	46	61	3726	41
7/9	874	760	114	256	88	168	3211	61
7/10	1076	955	121	294	107	187	2639	92
7/11	1589	1348	241	300	97	203	2201	137
total	8263	7219	1044	1441	496	945	25742	583
% North Passage	34	35	27	24	24	24	36	45

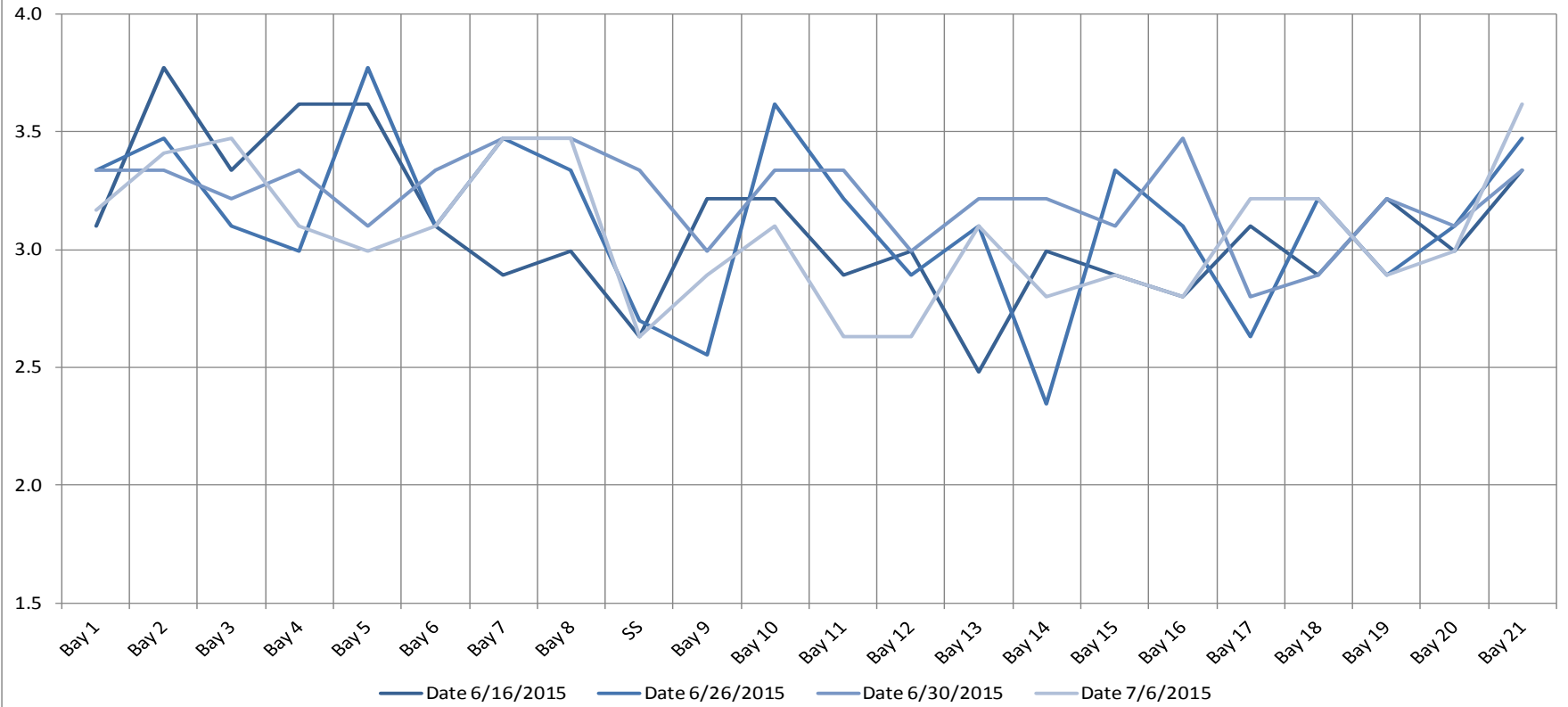
The Dalles North

Date	All Chinook	Adult Chinook	Jack Chinook	All Steelhead	Clipped Steelhead	Unclipped Steelhead	Sockeye	Lamprey
7/5	886	790	96	54	23	31	3643	34
7/6	1030	982	48	99	28	71	2720	37
7/7	521	461	60	31	17	14	2004	42
7/8	352	317	35	64	24	40	1446	131
7/9	308	286	22	53	23	30	924	41
7/10	565	456	109	94	29	65	1937	142
7/11	563	538	25	54	13	41	1580	44
total	4225	3830	395	449	157	292	14254	471

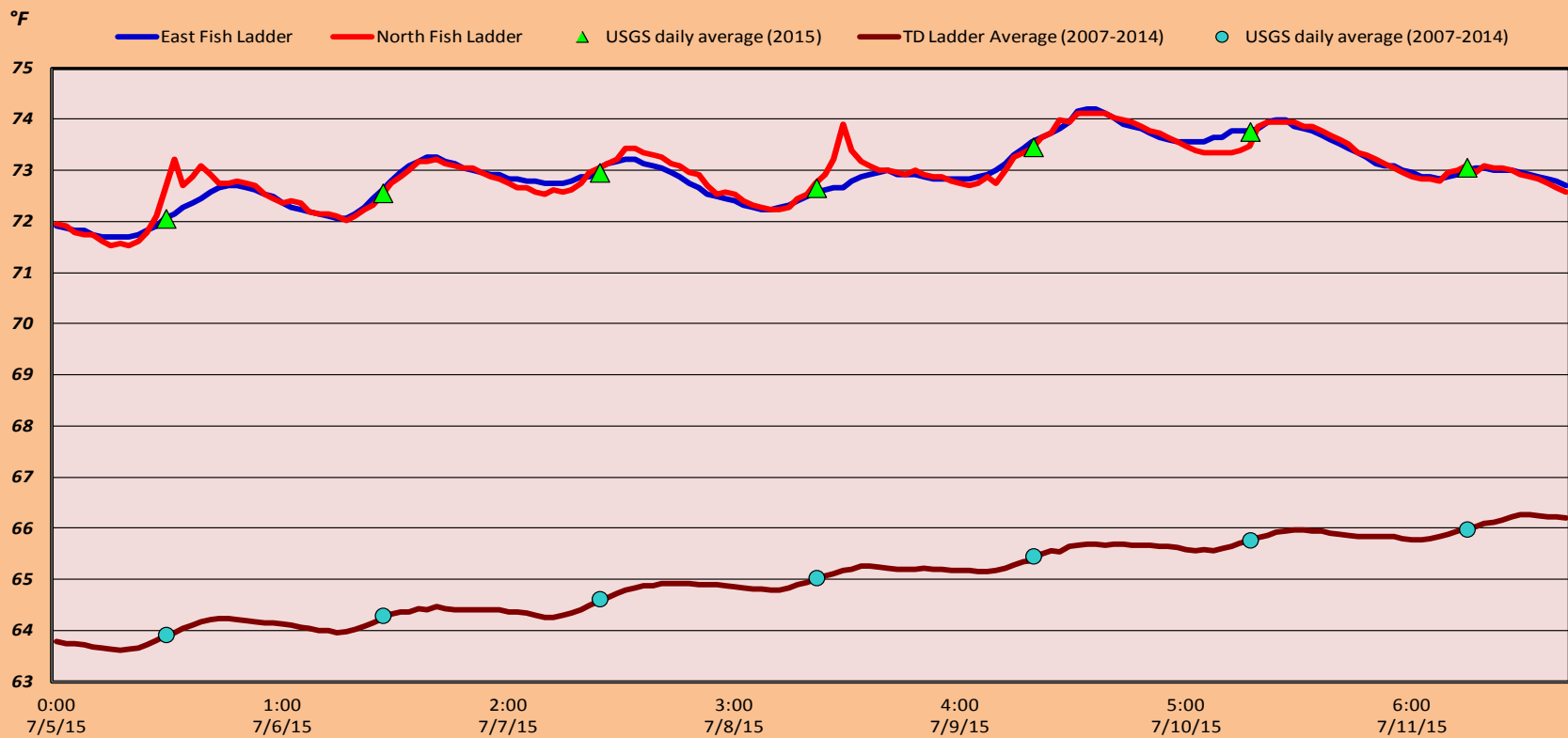


Avian lines in yellow, zones in red, river flow in blue.

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



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



USGS:	http://www.nwd-wc.usace.army.mil/tmt/documents/ops/temp/201507.lcol.html	
Temperatures		Secchi:
72.1	Sun	5.0
72.6	Mon	5.0
73.0	Tue	5.0
72.7	Wed	5.0
73.5	Thurs	5.0
73.8	Fri	4.0
73.1	Sat	5.0
AVG: 72.9	AVG	4.9

**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
6/28			1.5	7.1	11.5	11.5	8.0	1.3	9.7	9.7	closed	1.4	8.3	8.3	40.1
	1.3	9.3	1.5	7.0	11.6	11.6	8.1	1.3	9.8	9.8		1.5	8.1	8.1	
	1.3	9.4	1.5	7.1	11.7	11.7	8.2	1.4	9.6	9.6		1.5	8.3	8.2	
6/29			1.6	6.9	11.2	11.2	7.7	1.4	9.6	9.6		1.5	8.2	8.1	40.0
	1.3	9.3	1.6	6.9	11.2	11.2	7.7	1.4	9.6	9.6		1.5	8.1	8.2	
	1.4	9.3	1.4	7.1	12.3	12.3	8.8	1.4	9.6	9.7		1.4	8.2	8.3	
6/30			1.6	7.0	11.0	11.0	7.5	1.4	9.6	9.6		1.5	8.2	8.2	40.1
	1.4	9.3	1.6	8.0	11.3	11.3	7.8	1.6	9.5	9.5		1.5	8.2	8.2	
	1.4	9.4	1.6	7.9	11.4	11.4	7.9	1.5	9.5	9.5		1.4	8.2	8.2	
7/1			1.7	8.6	10.5	10.5	7.0	1.6	8.7	8.7		1.4	8.2	8.2	40.1
	1.4	9.2	1.5	9.0	10.6	10.6	7.1	1.5	8.7	8.7		1.5	8.1	8.1	
	1.4	9.2	1.6	8.9	10.1	10.1	6.6	1.5	8.6	8.8		1.4	8.3	8.2	
7/2			1.5	9.1	10.9	10.9	7.4	1.7	8.8	8.8		1.5	8.2	8.2	40.1
	1.4	9.3	1.5	9.1	10.9	10.9	7.4	1.6	8.9	8.9		1.5	8.2	8.2	
	1.4	9.2	1.4	8.5	11.4	11.4	7.9	1.4	9.5	9.5		1.4	8.2	8.2	
7/3			1.5	7.1	12.2	12.2	8.7	1.7	9.7	9.7	1.5	8.2	8.2	40.2	
	1.4	9.3	1.6	7.0	11.5	11.5	8.0	1.5	9.5	9.5	1.6	8.1	8.1		
	1.4	9.3	1.5	7.1	11.6	11.6	8.1	1.5	9.6	9.6	1.5	8.2	8.1		
7/4			1.7	7.0	11.0	11.0	7.5	1.4	9.4	9.4	1.4	8.2	8.2	40.0	
	1.4	9.3	1.6	7.9	11.0	11.0	7.5	1.5	9.4	9.4	1.5	8.1	8.1		
	1.4	9.3	1.5	8.0	10.9	10.9	7.4	1.5	9.2	9.2	1.4	8.2	8.2		
AVG:	1.4	9.3	1.5	No criteria	11.2	11.2	7.7	1.5	9.4	9.4	closed	1.5	8.2	8.2	40.1

Fishways are inspected twice daily plus one SCADA inspection.