

The Dalles Dam Fishway Status Report

07/26/2020

Inspection Period: 7/19-7/25

THE DALLES DAM



The Dalles Project-Fisheries
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections:	21	Temperature:	68.0 °F
			Comments: fishways functional		Weekly Average Secchi:	5.0

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')	9.8
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	1.1' ± 0.1'	
Count station differential	0	≤ 0.3'	
153 Weir crest depth	0	1.3' ± 0.1'	
Junction pool weir JP6	0	> 7.0'	Average for week = 11.2
East entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir E1	0	No criteria	Average for week = 7.0
Entrance weir E2	0	depth (≥ 8')	Average for week = 12.5
Entrance weir E3	0	depth (≥ 8')	Average for week = 12.5
Collection channel velocity	0	1.5 - 4 fps	2.96 fps, 7/18/2020 Range: 3.48 fps FU-2 to 2.46 fps MU-9
Transportation channel velocity	0	1.5 - 4 fps	1.96 fps, 7/11/2020
North channel velocity	0	1.5 - 4 fps	2.79 fps, 7/17/2020
South channel velocity	0	1.5 - 4 fps	2.82 fps, 7/18/2020
West entrance differential	0	1.0' - 2.0'	Average for week = 1.5
Entrance weir W1	0	depth (≥ 8')	Average for week = 10.7
Entrance weir W2	0	depth (≥ 8')	Average for week = 10.7
Entrance weir W3	0	No criteria	
South entrance differential	0	1.0' - 2.0'	Average for week = 1.4
Entrance weir S1	0	depth (≥ 8')	Average for week = 8.5
Entrance weir S2	0	depth (≥ 8')	Average for week = 8.5

JUVENILE PASSAGE

Sluiceway operation	0	Units 1, 7, 18	MU8 OOS, Lost line 6 and thus main unit 18 was OOS.
Turbine trashrack drawdown	0	<1.5', biweekly	7/17/2020 checked, all in criteria. 3 adult shad morts.
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.
Turbine Unit Priority	0	per FPP	All available MUs running; OOC due to forced outages
Gatewells	0	Weekly	7/17/2020 fish check, juvenile salmon in some wells, no mortality.

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation.

Spillway open 40% for juvenile passage with Fish Passage Plan pattern

Live shad and sub/yearling salmon observed in gatewells

Unit Outages

Line 1, MU1,2, FU1&2 limited to 188MVA for T1 replacement; 1/28/2021

T3 MU5, MU6 FU1 & FU2 limited to 188MVA through 1/28/2020 for FUBB bus temperature testing

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

MU8 OOS 0630 1/21/2020 - 1700 8/13/2020 for Overhaul

T7 OOS 0001 6/22/2020 - 1700 9/24/2020 T7 GSU Replacement & Gnd. Switch Repairs

MU22 FOOS through 1700 10/15/2020 due to excessive vibration.

L3 OOS for BPA & FUBB Work Daily 0700 7/20/2020 - 1730 7/23/2020

Maintenance

Calibration check; 7/17 all entrances and gates in calibration and criteria.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. Work in progress.

East fishway automation replacement underway. PLC box assembly completed. Starting installation at entrances.

Spillway assessment (MRER); No FY20 funding. Spillgate 9 trunnion pin included.

MU22 turbine successfully dewater ~100 sturgeon returned to the river

Predators

USDA hazing winding down, Sea Lion(s) still not observed

Green laser use for piscivorous bird hazing testing on hold. Potential safety concerns being addressed.

Research/Construction/Contractors

Four Peaks fish counting ongoing.

CRITFC continues lamprey trapping at east count station, 156 captured for the week w/ 378 total YTD

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

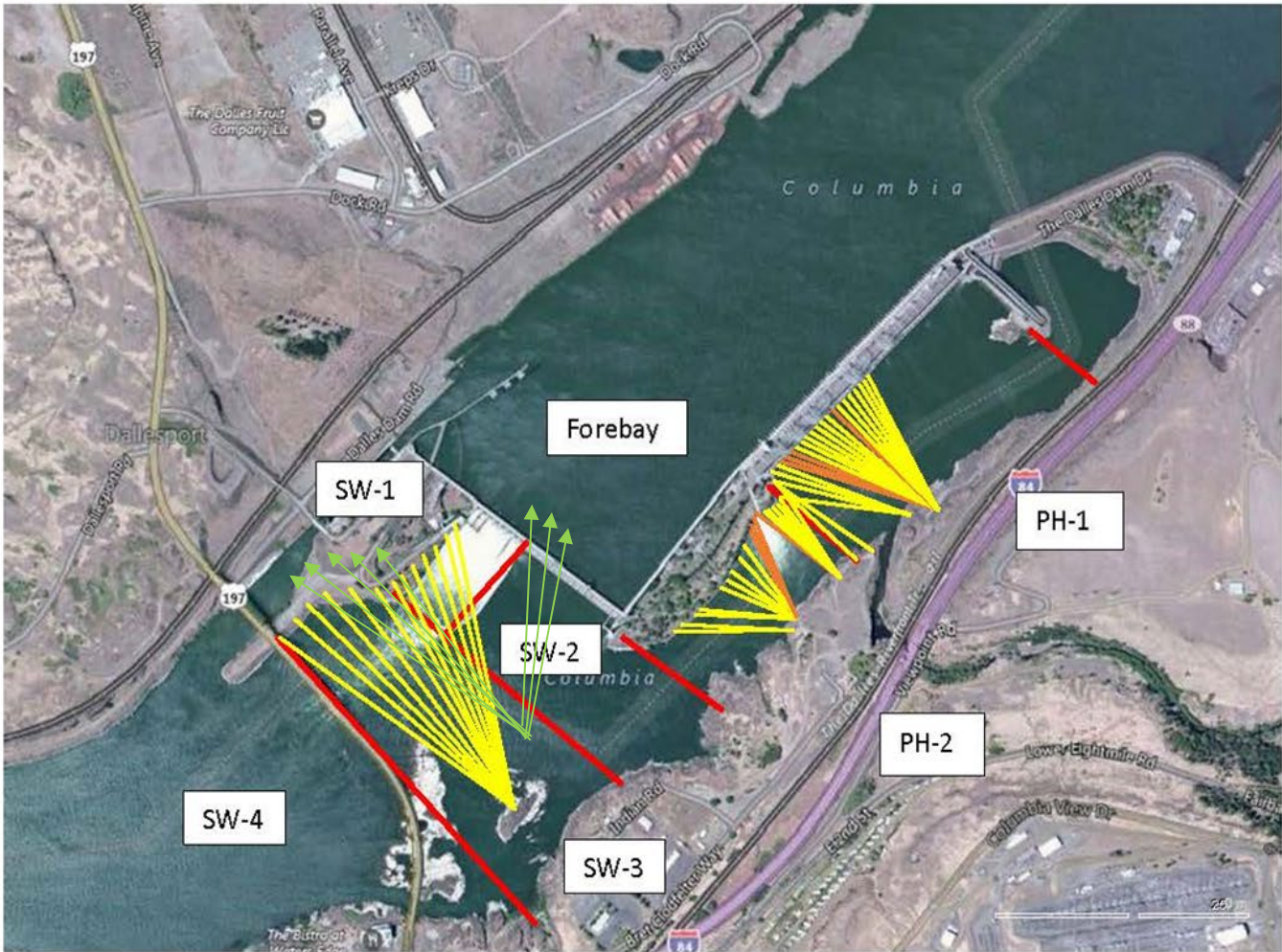
Pikeminnow dam angling 74 NPM this week-842 NPM YTD. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

Fish unit breaker replacement completed. One more calculation item needed for completion.

Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. Effort underway to finish report this year.

approved by: Mike Colesar, Operation Project Manager, The Dalles Dam

Avian Lines and laser deterrent zones



Red lines = avian zones

Yellow lines = current wires

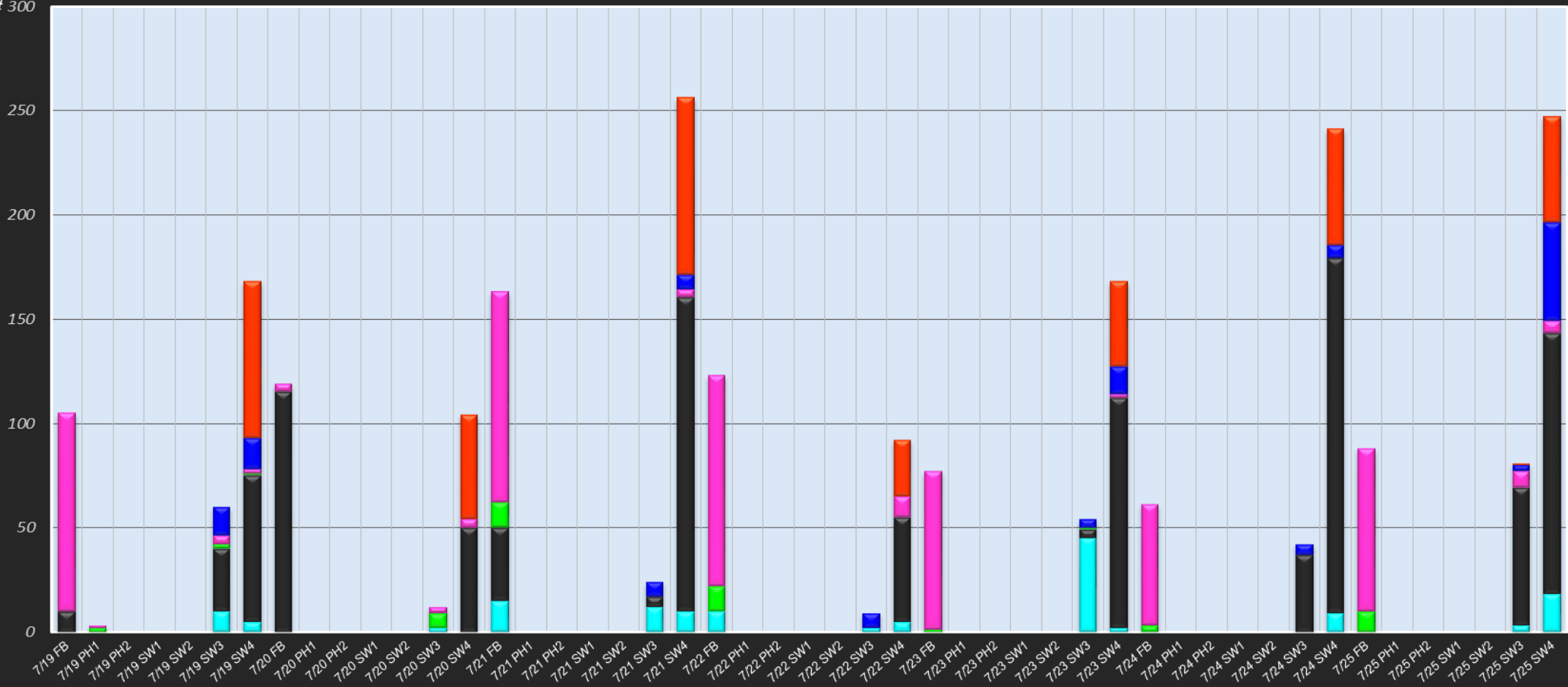
Orange lines = down or missing wires

Avian activity by Zone

■ Sum of GULL F
 ■ Sum of GULL NF
 ■ Sum of DCCO F
 ■ Sum of DCCO NF
 ■ Sum of AWPE F
 ■ Sum of AWPE NF

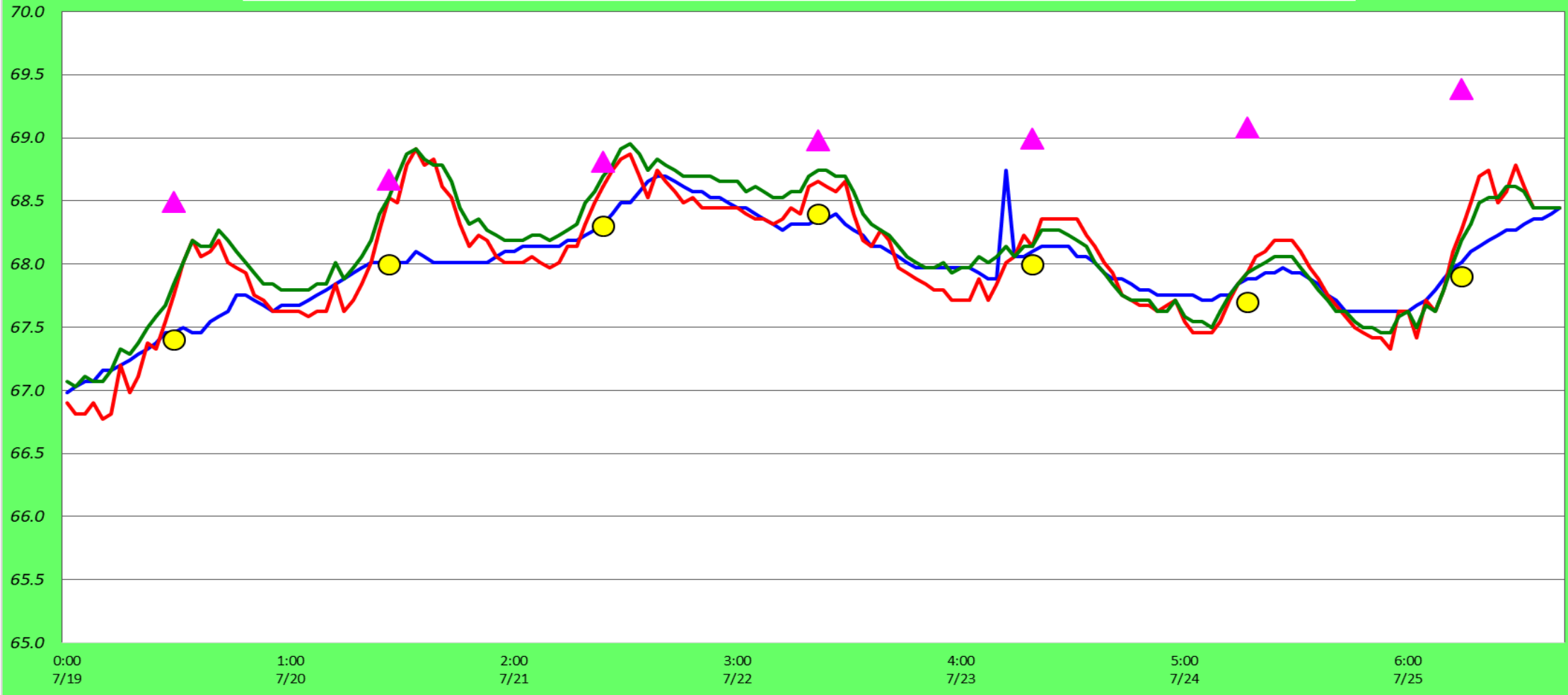
F=Forage
NF=Idle

300



Adult Fish Ladders-River Temperatures

— East Count Station — North Count Station — North Entrance ● Current USGS Daily Average ▲ USGS Daily Average (2007-2019)



	Secchi:		°F
7/19	5.0	Sun	67.4
7/20	5.0	Mon	68.0
7/21	5.0	Tue	68.3
7/22	5.0	Wed	68.4
7/23	5.0	Thurs	68.0
7/24	5.0	Fri	67.7
7/25	5.0	Sat	67.9
	5.0	AVG	68.0

USGS July

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

SCADA INSPECTION
out of criteria

Date:	North Ladder		East Ladder											
			East Entrance					West Entrance				South Entrance		
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
7/19			1.4	6.0	12.5	12.4	10.6	1.3	10.9	10.9	-3.5	1.4	8.6	8.6
	1.2	9.8	1.4	6.0	12.5	12.4	10.5	1.3	10.9	10.9	-3.6	1.4	8.5	8.6
	1.3	9.7	1.4	6.0	12.5	12.4	10.5	1.3	10.9	10.9	-3.7	1.4	8.4	8.5
7/20			1.3	6.0	12.4	12.4	10.8	1.4	10.9	10.9	-3.5	1.5	8.5	8.5
	1.3	9.6	1.3	5.9	12.4	12.6	10.4	1.3	11.0	11.0	-3.7	1.3	8.7	8.7
	1.3	9.8	1.7	7.6	12.6	12.6	12.9	1.5	11.6	11.6	-1.6	1.5	8.5	8.6
7/21			1.4	8.6	12.5	12.6	11.2	1.3	11.6	11.6	-2.9	1.4	8.6	8.5
	1.3	9.7	1.4	8.6	12.6	12.5	11.5	1.5	10.6	10.6	-2.8	1.5	8.5	8.5
	1.3	9.8	1.6	7.4	12.6	12.5	12.8	1.7	10.5	10.5	-1.8	1.6	8.4	8.6
7/22			1.7	7.0	12.2	12.2	11.0	1.3	10.5	10.5	-3.0	1.4	8.6	8.6
	1.2	9.8	1.6	7.1	12.4	12.3	11.2	1.4	10.5	10.6	-3.0	1.4	8.5	8.5
	1.2	9.9	1.5	7.1	12.6	12.5	11.2	1.6	10.5	10.5	-3.0	1.4	8.6	8.5
7/23			1.4	7.1	12.5	12.5	11.3	1.5	10.6	10.6	-3.0	1.5	8.5	8.5
	1.2	9.8	1.4	7.1	12.5	12.5	11.5	1.5	10.5	10.5	-2.9	1.5	8.5	8.5
	1.3	10.0	1.5	7.2	12.5	12.5	12.2	1.6	10.6	10.6	-2.3	1.5	8.6	8.6
7/24			1.4	7.1	12.6	12.6	11.0	1.5	10.5	10.5	-3.2	1.4	8.5	8.5
	1.2	9.7	1.4	7.0	12.5	12.5	11.1	1.6	10.4	10.4	-3.2	1.5	8.5	8.5
	1.2	9.9	1.4	7.0	12.5	12.5	10.9	1.6	10.4	10.4	-3.3	1.4	8.6	8.6
7/25			1.4	7.0	12.5	12.5	10.3	1.5	10.6	10.6	-3.8	1.4	8.6	8.6
	1.3	9.8	1.6	7.1	12.4	12.6	11.3	1.6	10.5	10.4	80.0	1.4	8.6	8.4
	1.3	9.8	1.4	7.1	12.4	12.6	11.7	1.5	10.9	10.9	79.0	1.5	8.5	8.4
AVG:	1.3	9.8	1.5	7.0	12.5	12.5	11.2	1.5	10.7	10.7	4.8	1.4	8.5	8.5

Fishways are inspected once daily plus one SCADA inspection.

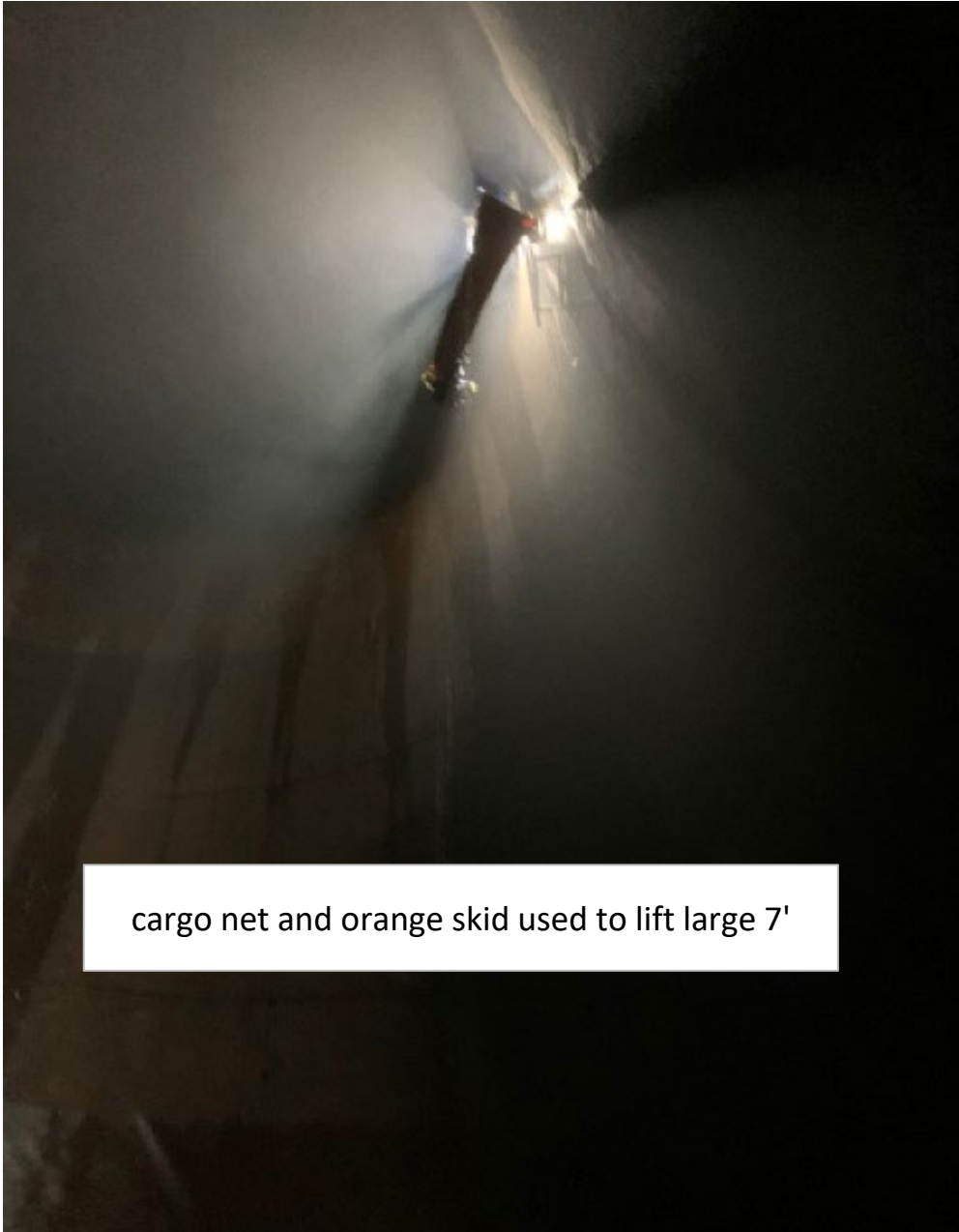
How to rescue 99 sturgeon in bags and 1 oversize adult in a cargo net from draft tube in main unit 22.
Emergency rescue team drill.



Main Unit 22 Draft tube fish rescue team







cargo net and orange skid used to lift large 7'