

FISHWAY STATUS REPORT

Date: 6/16/2013
 Inspection Period: 6/9 to 6/15/2013

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. Additional daily monitoring done via automation system in fisheries office.

The Dalles Dam	Inspections	Criteria	Total Number of Inspections:	21	Temperature:	62.0	F
	Out of Criteria	Limit	Comments		Secchi:	4.7	Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'	Window cleaned 6/10.				
Weir crest depth	0	1.0' ± 0.1'					
Entrance differential	1	1.0' - 2.0'	Average 1.3		Out of criteria at 0.9'.		
Entrance weir N1	0	depth (≥ 8')	Average 10.0				
Entrance weir N2		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'	Picketed leads raked and window cleaned 6/10.				
Weir crest depth	0	1.0' ± 0.1'	Depth over weir changed from 1.0' to 1.3' due to shad passage > 5000/day May 18.				
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed.				
East entrance differential	0	1.0' - 2.0'	Average 1.5		Daily differentials & weir depths, see AVGS tab.		
Entrance weir E1	0	No criteria	Average -0.8		Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average 12.8				
Entrance weir E3	0	depth (≥ 8')	Average 13.2				
Collection channel velocity	0	1.5 - 4 fps	Average 2.2		See Velocities tab for more complete information.		
Transportation channel velocity	0	1.5 - 4 fps	Average 2.3				
North channel velocity	0	1.5 - 4 fps	Average 2.0				
South channel velocity	0	1.5 - 4 fps	Average 3.5				
West entrance differential	0	1.0' - 2.0'	Average 1.5				
Entrance weir W1	0	depth (≥ 8')	Average 9.1				
Entrance weir W2	0	depth (≥ 8')	Average 9.1				
Entrance weir W3	0	No criteria	Average closed				
South entrance differential	0	1.0' - 2.0'	Average 1.5		Daily differentials & weir depths, see AVGS tab.		
Entrance weir S1	0	depth (≥ 8')	Average 9.3		Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average 9.3				
JUVENILE PASSAGE							
Sluiceway operation	0	units 1,8,18					
Turbine trashrack drawdown	0	<1.5', wkly	Range 0.1' - 0.8'				
Spill volume	0	40%, 24hr					
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 twice daily. The majority of the foraging piscivorous birds are gulls, upstream and downstream of the bridge, See avian zones map and distribution tabs. There were no sea lion sightings this week.

Operations:

Current Outages:

Main Unit 15, 16, and T8 forced out of service due to transformer oil issues. Return to service ~8/8.

Main Unit 21 out of service 4/29 to 6/20 for five year over haul, as built, gen heat, heat exch, and cavitation.

Main Unit 11 out of service 5/13 6/22 for digital governor install and annual maintenance.

Main Unit 17 out of service 6/3 to 7/11 for digital governor installation and annual maintenance.

Gatewell drawdown was completed on 06/10. All values were within the 1.5' criteria and ranged from 0.1' to 0.8'.

The east and north fishways, sluiceway, and spillways are in operation for fish passage in accordance to the Fish Passage Plan (FPP).

Decapitated sturgeon (~5') observed in tailrace below unit 15 (Pic tab). Likely not sea lion leftovers due to condition of body. Investigation continues.

Maintenance:

PUD turbine outage 6/10, 0700 to 1430 to replace the feeder 2 breaker in DQ1 for spill gates. Operated in bypass mode.

Emergency diesel generator was available for spillgate operation if needed.

ROV completed 6/13 for inspection of intake trashracks of 3 units per Fish Passage Plan requirement. No debris found.

Studies:

PIT - Temporary Thin Wall PIT tag Antenna continues to work successfully. Plans to replace all aluminum paneling over north count station to correct the noticeable minor interference. Walls being constructed by Natural Resources around north PIT computer room to protect equipment.

EFL - Current design is 10' intake pipe near fish lock. 60% DDR in review. Value engineering workshop 6/17.

PUD - Freedom turbine planning continues. PUD/COE present operating agreement document edited and awaiting approvals.

Lamprey - Collecting turbine cooling water strainer juvenile lamprey data as available. No data this week.

Lamprey Improvements PDT developing weir orifice floor plating in lower ladders to improve lamprey passage through high velocity areas.

Research/Contractors:

University of Idaho adult radio telemetry new antennas both fish ladders completed and operating. Conduit and two new electrical outlets to be installed next week.

As in previous years CRITFC member tribes are planning on trapping adult lamprey for radio translocation, telemetry research, and/or brood stock at the project. Unlike last year the Nez Perce are planning to join the CTUIR and Yakama Nation with trap operation as well.

ODFW and Pacific States Marine Fisheries Commission collecting gut samples of pikeminnow from dam anglers through August.

Columbia River Northern Pikeminnow Management Program WDFW Dam Angling: Effort hours - 42.5, total NPM - 181, NPM \geq 230 mm - 179, sturgeon - 1, game fish - 7, non-game fish - 1.

Fish counting continues with Normandeau staff. Spring Chinook passage steadily decreasing. Shad numbers high.

Normandeau digital video fish counting at count stations to occur June 15 - Sept 30 from 2000 hrs to 0400 hrs.

Pacific States Marine Fisheries Commission fish sampling of the PUD juvenile bypass: Chinook subyearling smolts - 4, Coho - 1. Debris was minimal and fish condition was good. Refer to Northern Wasco County PUD Weekly Report # 13-10 for additional information.

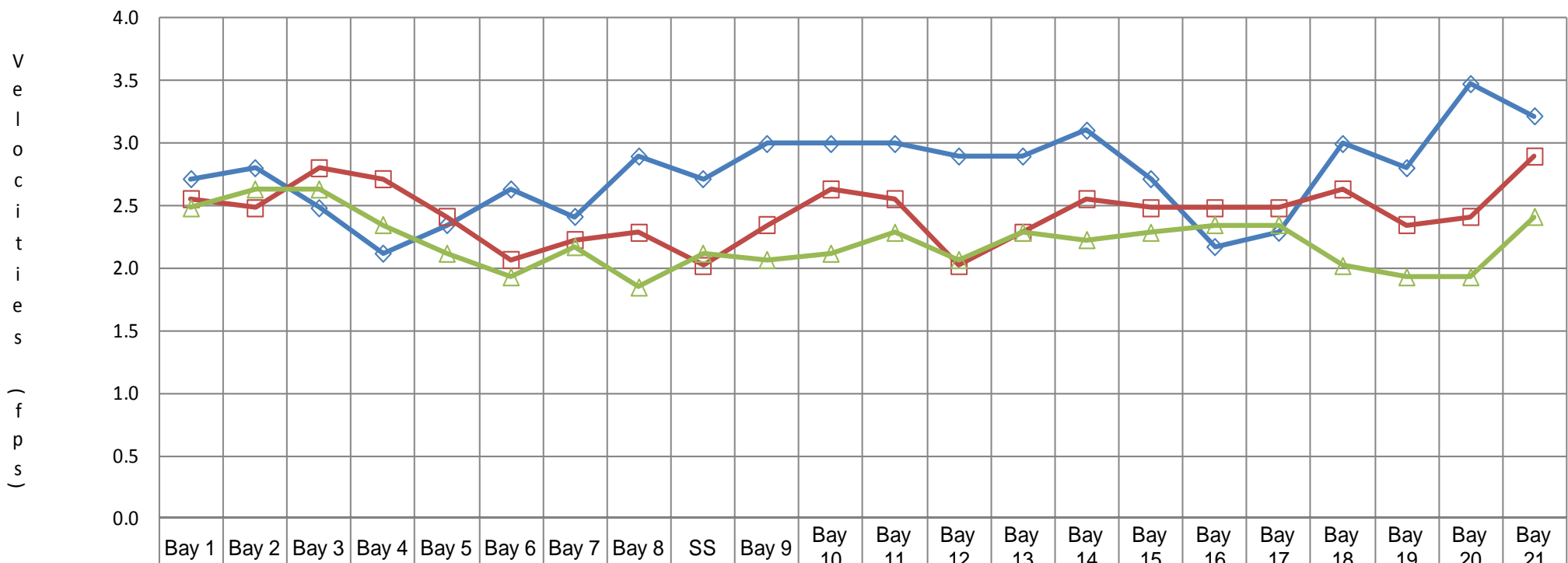
Project maintenance to remove I-beams at forebay pier noses this summer; divers this coming winter to remove the underwater derelict gear.

Approved by;
Ron D. Twiner
Operation Project Manager
The Dalles Dam

DART The Dalles Adult Ladders Daily Usage with Spill Percent and Outflow

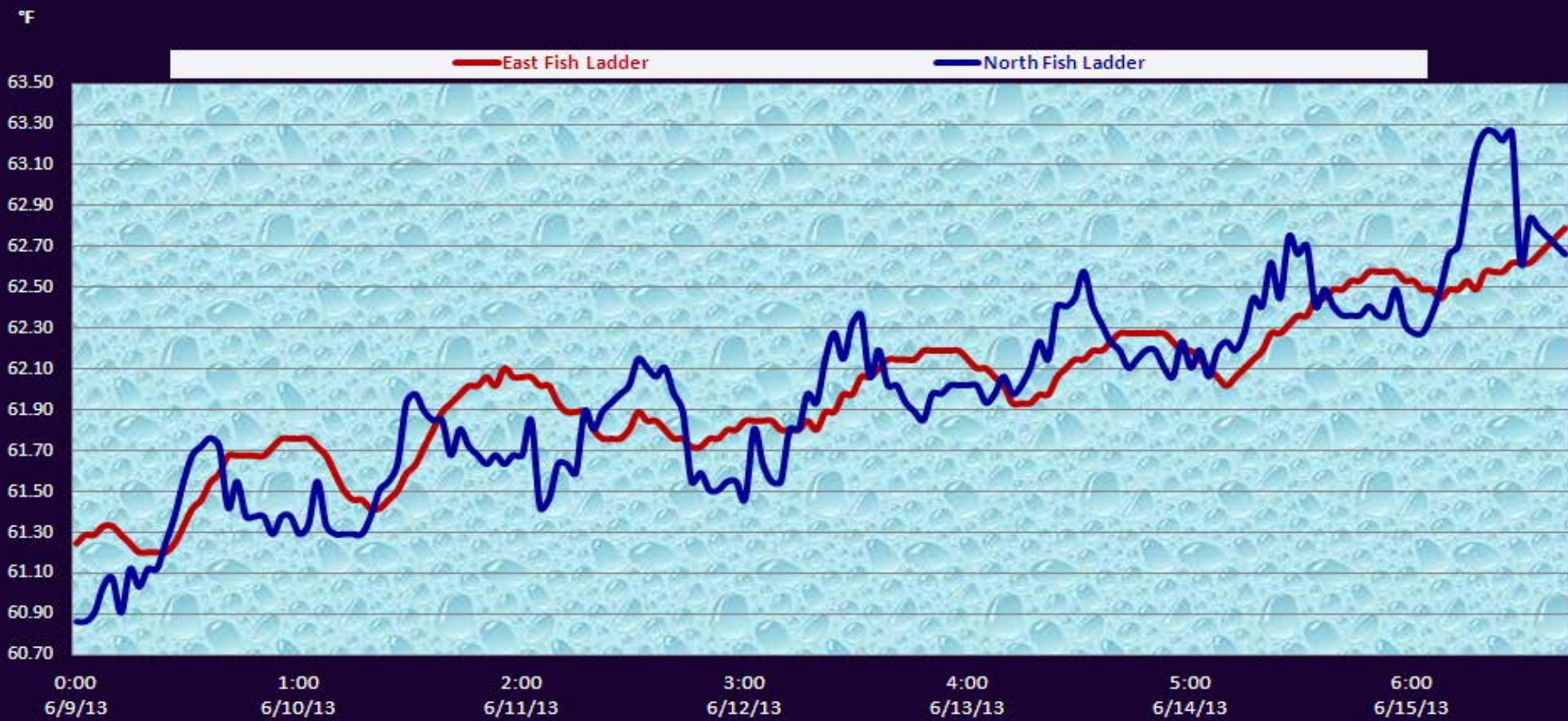
Date	Chinook				Jack Chinook				Steelhead				Steelhead Wild				Sockeye				Coho				Jack Coho				Lamprey				Spill Pct	Outflow (kcs)		
	east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder									
	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#				
6/9/13	42	1027	58	1432	53	324	47	290	82	32	18	7	89	8	11	1	77	485	23	142	0	0	0	0	0	0	0	0	43	12	57	16	39.9	225.7		
6/10/13	47	875	53	977	80	419	20	103	85	29	15	5	88	7	13	1	90	680	10	78	0	0	0	0	0	0	0	0	48	11	52	12	40.0	232.4		
6/11/13	32	782	68	1649	42	296	58	403	88	22	12	3	83	5	17	1	61	764	39	484	0	0	0	0	0	0	0	0	42	17	59	24	40.1	197.5		
6/12/13	50	650	50	649	81	368	19	86	94	30	6	2	80	4	20	1	83	832	17	167	0	0	0	0	0	0	0	0	3	1	97	32	40.1	237.1		
6/13/13	52	1145	48	1066	75	444	25	149	89	23	12	3	88	7	13	1	91	1656	9	157	0	0	0	0	0	0	0	0	41	16	59	23	40.0	241.0		
6/14/13	40	856	60	1274	59	288	41	203	70	26	30	11	71	10	29	4	73	1429	27	532	0	0	0	0	0	0	0	0	45	14	55	17	40.2	187.1		
Date	Chinook				Jack Chinook				Steelhead				Steelhead Wild				Sockeye				Coho				Jack Coho				Lamprey							
YTD	east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder		east Ladder		north Ladder									
	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#				
	43		57		63		37		84		16		82		18		79		21		0		0		0		0		0		0		36		64	

The Dalles Dam Collection Channel Velocities (fps)



	Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8	SS	Bay 9	Bay 10	Bay 11	Bay 12	Bay 13	Bay 14	Bay 15	Bay 16	Bay 17	Bay 18	Bay 19	Bay 20	Bay 21
5/31/2013	2.7	2.8	2.5	2.1	2.3	2.6	2.4	2.9	2.7	3.0	3.0	3.0	2.9	2.9	3.1	2.7	2.2	2.3	3.0	2.8	3.5	3.2
6/6/2013	2.6	2.5	2.8	2.7	2.4	2.1	2.2	2.3	2.0	2.3	2.6	2.6	2.0	2.3	2.6	2.5	2.5	2.5	2.6	2.3	2.4	2.9
6/11/2013	2.5	2.6	2.6	2.3	2.1	1.9	2.2	1.8	2.1	2.1	2.1	2.3	2.1	2.3	2.2	2.3	2.3	2.3	2.0	1.9	1.9	2.4

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



The Dalles Dam Avian Zone Map

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

SW-T2

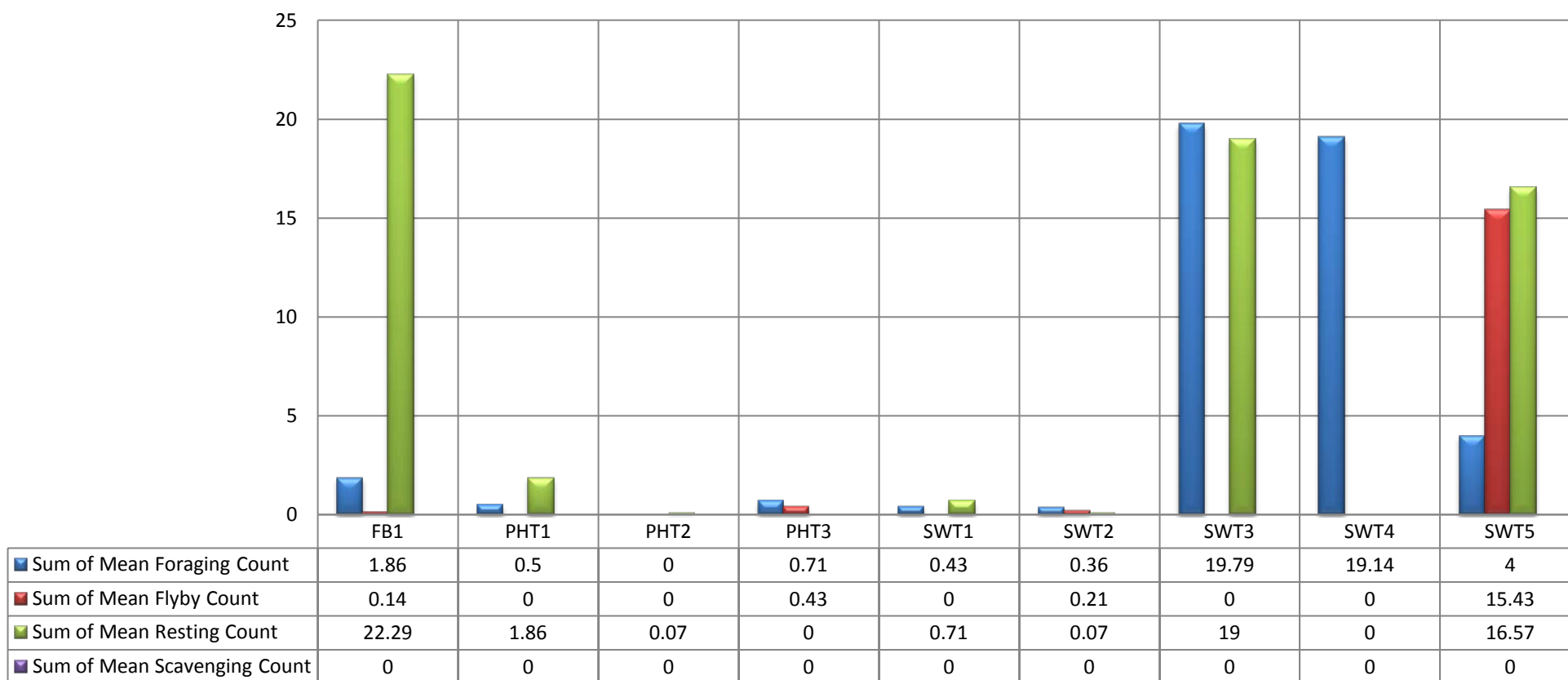
SW-T4

Oregon Shore

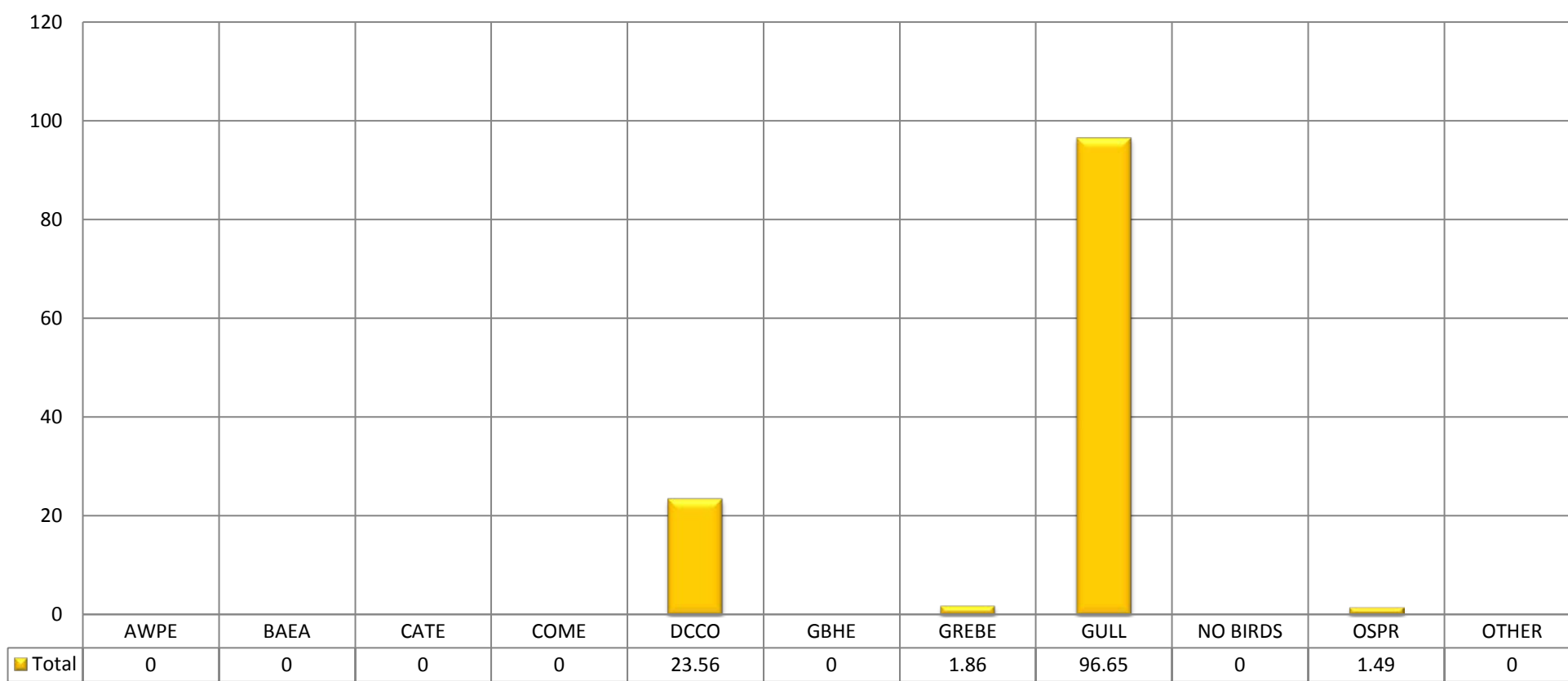
SW-T5



Mean Avian Counts by Behavior



Mean Avian Counts by Species



AWPE - American White Pelican; BAEA - Bald Eagle; CATE - Caspian Tern; COME - Common Merganser; DCCO - double crested cormorant; GBHE - Great Blue Heron; GREBE - Grebe; Gull- Gull (all species); OSPR - Osprey

Temp:			Secchi:	
	61.3	SUN		4.0
	61.6	MON		4.0
	61.9	TUES		5.0
	62.0	WED		5.0
	62.2	THUR		5.0
	62.4	FRI		5.0
	62.8	SAT		5.0
AVG:	62.0	AVG:		4.7

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

North Fish Ladder			East Fish Ladder												KCFS
North Entrance		East Entrance					West Entrance				South Entrance				
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth	% Spill
6/9/13	1.4	9.8	1.6	-1.1	12.7	12.6	12.1	1.6	8.9	8.9		1.6	9.4	9.4	39.9
6/9/13	1.3	9.8	1.6	-1.0	13.3	13.2	12.7	1.5	9.3	9.3		1.5	9.4	9.4	39.9
6/9/13			1.2	-0.8	12.6	13.7	11.6	1.4	9.1	9.1		1.4	9.6	9.6	
6/10/13	0.9	9.0	1.5	-1.0	13.1	13.3	12.1	1.5	9.3	9.2		1.5	9.5	9.4	39.4
6/10/13	1.3	9.9	1.6	-1.0	13.5	13.5	12.9	1.5	9.9	9.8		1.5	9.4	9.5	40.2
6/10/13			1.4	-1.0	12.2	13.2	11.2	1.4	9.2	9.2		1.5	9.2	9.4	
6/11/13	1.3	10.0	1.5	-1.0	11.7	13.5	10.7	1.5	8.3	8.3		1.6	8.9	8.9	39.6
6/11/13	1.3	9.8	1.7	-1.1	13.0	12.9	11.2	1.7	8.2	8.1		1.5	9.4	9.5	40.0
6/11/13			1.3	-1.0	10.3	13.5	9.3	1.0	9.6	9.6		1.3	9.4	9.4	
6/12/13	1.3	9.9	1.8	-1.1	12.4	12.4	11.3	1.6	8.5	8.6		1.6	9.1	9.0	39.8
6/12/13	1.3	9.9	1.4	-1.0	13.6	13.5	12.7	1.5	9.5	9.6		1.6	8.9	8.9	39.9
6/12/13			1.2	-1.0	13.4	13.5	10.2	1.2	9.0	9.1		1.3	9.5	9.4	
6/13/13	1.4	11.8	1.7	-0.8	13.6	13.7	13.0	1.6	9.6	9.6		1.5	9.1	9.1	39.9
6/13/13	1.3	10.0	1.6	0.0	13.6	13.5	13.6	1.6	10.0	9.9		1.5	9.6	9.6	39.5
6/13/13			1.2	-0.8	13.7	13.7	11.6	1.3	9.4	9.4		1.5	8.9	9.0	
6/14/13	1.3	10.0	1.3	-0.1	13.0	13.0	12.1	1.4	9.5	9.5		1.4	9.5	9.5	39.6
6/14/13	1.4	9.9	1.4	0.0	13.4	13.4	12.4	1.5	9.0	9.1		1.4	9.6	9.5	39.9
6/14/13			1.4	0.0	12.5	12.7	12.2	1.4	9.2	9.4		1.5	9.1	9.0	
6/15/13	1.3	9.8	1.5	-1.3	12.7	12.7	10.8	1.5	8.6	8.5		1.5	9.1	9.1	39.8
6/15/13	1.3	9.8	1.6	-1.5	12.5	12.5	11.4	1.5	8.6	8.5		1.5	9.1	9.1	39.7
6/15/13			1.4	-1.0	13.0	13.0	10.7	1.5	8.4	8.4		1.5	9.0	9.0	
AVG:	1.3	10.0	1.5	-0.8	12.8	13.2	11.7	1.5	9.1	9.1	closed	1.5	9.3	9.3	39.8

Third fish way inspection for east fish ladder, east, west, and south entrances completed via automation system in fisheries office.



Decapitated sturgeon observed in tailrace below turbine unit 15.
Investigation and further observations will continue.