

# FISHWAY STATUS REPORT

Date: 7/14/2013  
 Inspection Period: 7/7 - 7/13/2013

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

The Dalles Dam	Inspections	Criteria	Total Number of Inspections:	21	Temperature:	67.5	F
	Out of Criteria	Limit	Comments		Secchi:	5.0	Ft.
<b>NORTH FISHWAY</b>							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'	Window cleaned 7/8, 7/9, 7/10.				
Weir crest depth	2	1.0' ± 0.1'	0.8' Adjusted manually				
Entrance differential	0	1.0' - 2.0'	Average	1.3			
Entrance weir N1	0	depth (≥ 8')	Average	9.9			
Entrance weir N2		Closed	Bulkhead installed.				
PUD Intake differential	0	≤ 0.5'					
<b>EAST FISHWAY</b>							
Exit differential	0	≤ 0.5'					
Removable weirs 154-157	1	Per forebay	Auto adjusts 1' increments.	156	weir out of criteria	0.1'	with forebay at 158.4'.
Weir 158-159 differential	0	1.0' ± 0.1'					
Count station differential	0	≤ 0.3'	Window cleaned 7/8, 7/10; picketed leads raked 7/8, 7/9, 7/10.				
Weir crest depth	0	1.0' ± 0.1'	Depth over weir changed back from 1.3' to 1.0 due to shad passage < 5000/day.				
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed.				
East entrance differential	1	1.0' - 2.0'	Average	1.5	Daily differentials & weir depths, see	<b>AVGS</b>	tab.
Entrance weir E1	0	No criteria	Average	1.9	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	12.4			
Entrance weir E3	0	depth (≥ 8')	Average	12.4			
Collection channel velocity	0	1.5 - 4 fps	Average	2.4	See	<b>Velocities</b>	tab for more complete information.
Transportation channel velocity	0	1.5 - 4 fps	Average	2.6			
North channel velocity	0	1.5 - 4 fps	Average	2.6			
South channel velocity	0	1.5 - 4 fps	Average	2.8			
West entrance differential	0	1.0' - 2.0'	Average	1.4			
Entrance weir W1	0	depth (≥ 8')	Average	8.6			
Entrance weir W2	0	depth (≥ 8')	Average	8.6			
Entrance weir W3	0	No criteria	Average	closed			
South entrance differential	0	1.0' - 2.0'	Average	1.5	Daily differentials & weir depths, see	<b>AVGS</b>	tab.
Entrance weir S1	0	depth (≥ 8')	Average	9.3	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	9.3			
<b>JUVENILE PASSAGE</b>							
Sluiceway operation	0	units 1,8,18	Gates 2-1, 2-2, 2-3, 8-2, 18,2, and 18.3 open. MU1 OOS for digital governor repair.				
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.1' - 0.2'				
Spill volume	4	40%, 24hr	Out of criteria at 41.4 - 42.0%. Fish passage gas cap 107kcf.				
Spill Pattern	0	per FPP					
Turbine Unit Priority	0	per FPP	Several units out for maintenance preventign priority block sequence.				
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: Refer to operations daily status reports for details operations data.****Current Outages:**

Main Unit 15, 16, and T8 forced out of service due to gas issues in the transformer oil. Return to service ~8/8/2013.

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

Main Unit 1 out of service 6/24 to 8/1 for digital governor installation. Unit 2 serves as fish priority unit.

Main Unit 19 out of service 6/24 to 7/11 for annual maintenance and packing box repair.

Calibration completed 7/13. All entrance weirs, channel/tailwater and exit staff gauges in criteria within +/- 0.3'.

Gatewell drawdown completed on 7/8. All values were within the 1.5' criteria and ranged from 0.0' to 0.2'.

On 7/10 a dead sturgeon (~3') was observed in the tailrace near east fish ladder entrance. No noticeable injury. Cause of death unknown.

**Maintenance:**

New sluicelift beams have been installed for 1-2, 1-3 gates with recessed bars out of flow. Potentially less fish injury opportunity.

Remaining sluicelifts 1-1, 18-1, 2 and 3 planned for replacement as funding allows.

Control room fish unit elevation dials to be replaced with a digital read out that indicating flow. Installation comes with digital governor upgrade.

Entrance weir W2 wheel replacement on hold due to budget constraints. Still operable,

East exit backup power supply on hold due to budget constraints.

Fishway grating attachment parts for next winter on hold due to budget constraints. Plan to purchase with FY 14 funds.

Entrance weirs lift beam repairs on hold due to budget constraints. Still operable.

Fish Unit 1 out of service 7/9 1005 - 1025hr for breaker swap. Intended to be 5 minute outage. Future swaps to occur only between 2100 and 0500.

North and east count station window brush actuators adjusted for better crowder panel cleaning.

**Studies:**

**PIT** - Temporary Thin Wall PIT tag Antenna continues to work successfully. Plans to replace all aluminum paneling over north count station to correct minor data interference. Wall enclosure constructed by Natural Resources around north PIT computer room and AC installed in east station.

**EFL** - Current design is 10' intake pipe near fish lock. VE study complete with VE alternative selected. 60% DDR in review.

**PUD** - Second (freedom) turbine planning continues. PUD/COE memorandum of understanding for present operation awaiting approvals.

**Lamprey** - Lamprey improvements; PDT developing weir orifice floor plating in lower ladders to improve lamprey passage through high velocity areas.

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

**Research/Contractors:**

CRITFC Lamprey Collection 2013 from east count station picket leads; total collected - 29. Collection allocation 281 per tribe.

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

WDFW Columbia River Northern Pikeminnow Management Program Dam Angling; nothing to report this week.

Pacific States Marine Fisheries Commission fish sampling of the PUD juvenile bypass. See NWC PUD report #13-14 for additional information.

University of Idaho adult RT new antennas both fish ladders completed and operating.

Fish counting continues with Normandeau staff. Refer to fish count web site for latest results. Nighttime video counts will occur at The Dalles from mid-June through September 30. Direct visual counting will cease at all projects on October 31, 2013

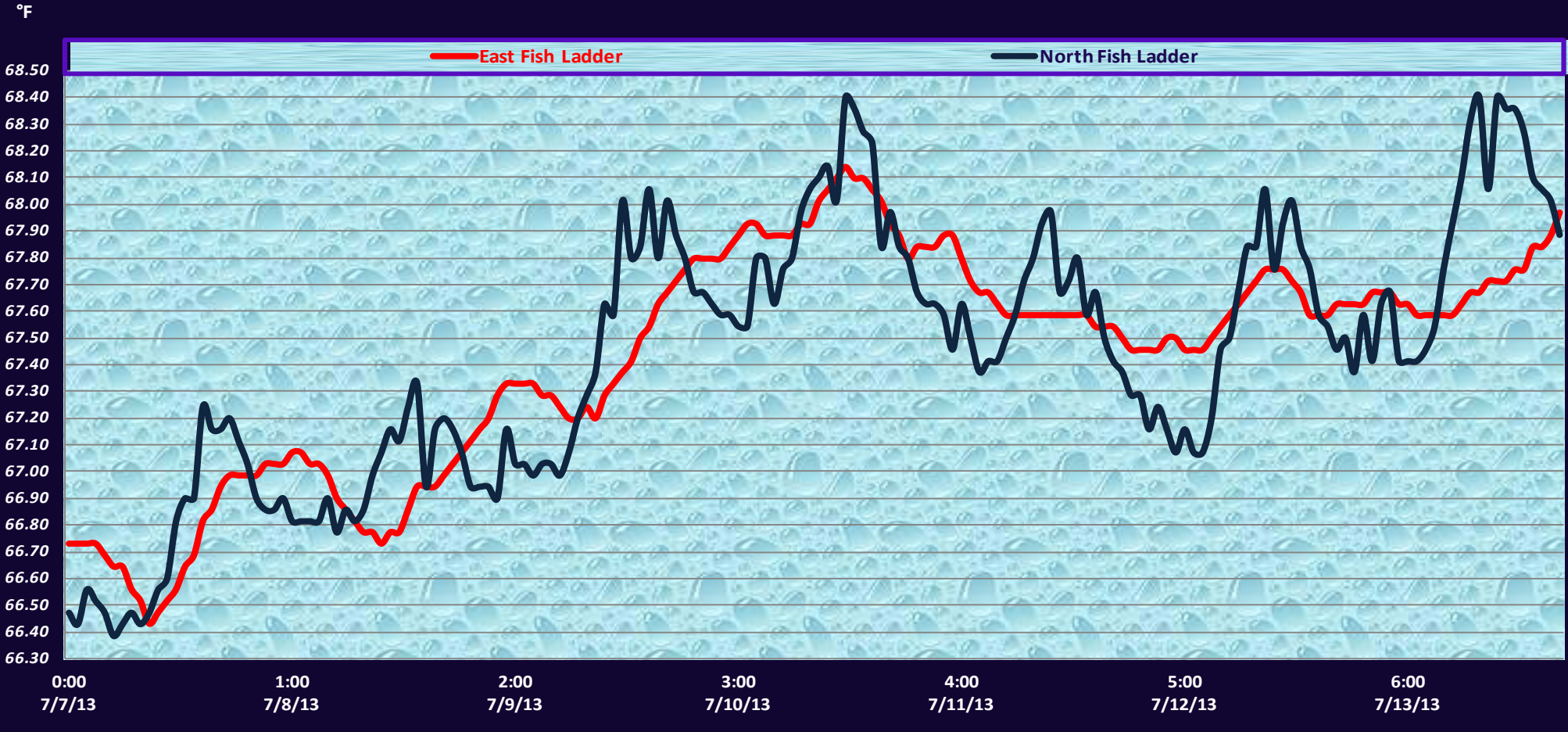
Plans to finish USGS derelict gear removal from powerhouse pier-noses this winter.

Funding now available for the removal of "I - beams" on the powerhouse forebay pier-noses. Structural currently trying to fit into their work schedule.

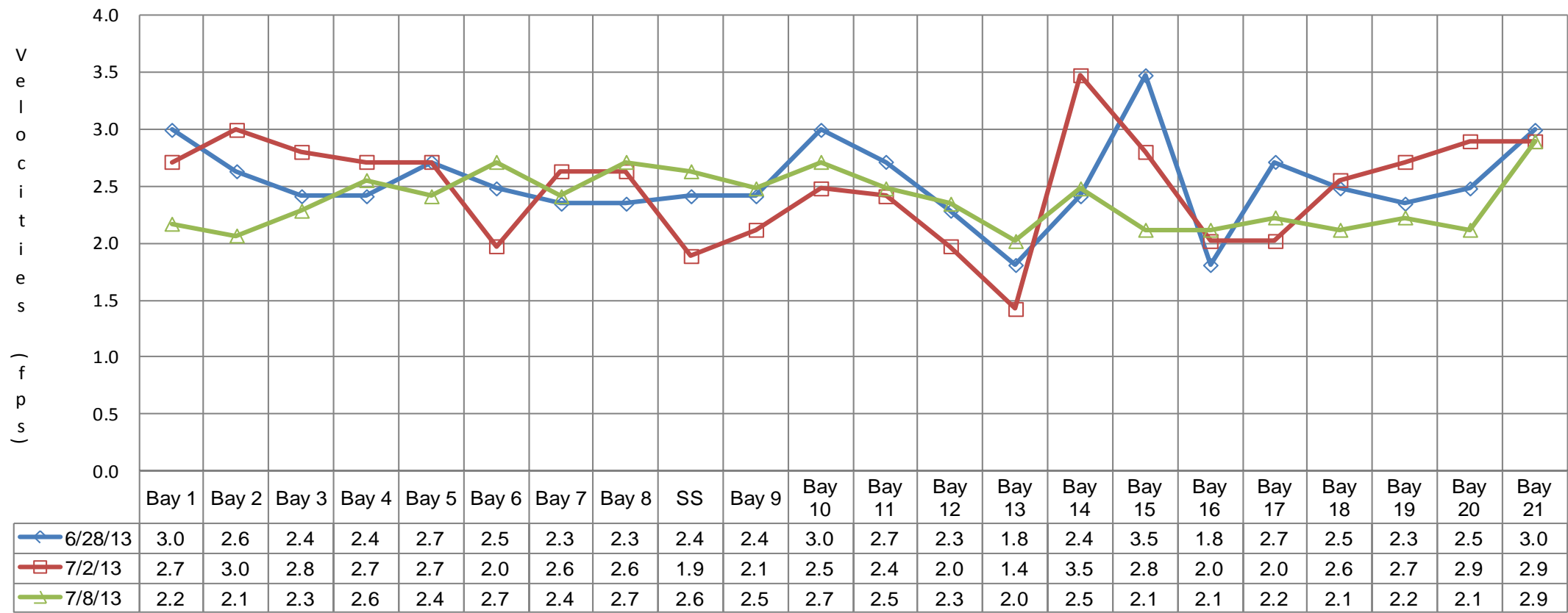
Approved by;  
Ron D. Twiner  
Operation Project Manager  
The Dalles Dam

Date	Chinook				Jack Chinook				Steelhead				Steelhead Wild				Sockeye				Coho				Jack Coho				Lamprey				Spill Pct [Right]	Outflow (kcs)
	Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder							
	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#	Pct	#				
7/7/13	87.6	1280	12.4	181	97.4	408	2.6	11	95.9	235	4.1	10	94.1	96	5.9	6	96.6	3950	3.4	140		0		0		0		0	74	74	26	26	40	237.3
7/8/13	90	1201	10	134	90.5	266	9.5	28	93.2	289	6.8	21	94	157	6	10	93.2	3956	6.8	287		0		0		0		0	67.6	121	32.4	58	39.8	232.9
7/9/13	75	722	25	241	90.3	280	9.7	30	85.6	262	14.4	44	84	126	16	24	83.4	3420	16.6	682		0		0		0		0	70.5	74	29.5	31	40.1	200.5
7/10/13	85.5	1068	14.5	181	72.3	146	27.7	56	89.2	423	10.8	51	88.1	251	11.9	34	78.7	3641	21.3	988		0		0		0		0	59.5	91	40.5	62	40	188.9
7/11/13	70.9	673	29.1	276	89	235	11	29	82.8	448	17.2	93	82.2	268	17.8	58	75	2359	25	787		0		0		0		0	70.5	91	29.5	38	39.9	183.1
7/12/13	76	917	24	289	77.5	179	22.5	52	80.9	347	19.1	82	73.4	163	26.6	59	77.7	1924	22.3	552		0		0		0		0	38.8	106	61.2	167	39.9	187.3
7/13/13	84.1	901	15.9	170	86.7	182	13.3	28	88.5	498	11.5	65	91.8	312	8.2	28	76.5	2442	23.5	750		0		0		0		0	44.9	40	55.1	49	39.8	151.7
Date	Chinook				Jack Chinook				Steelhead				Steelhead Wild				Sockeye				Coho				Jack Coho				Lamprey				Spill Pct	Outflow
YTD	Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder		Left Ladder		Right Ladder							
	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct						
	82.1	17.9	87.9	12.1	87.2	12.8	86.2	13.8	83.8	16.2	0	0	0	0	58.1	41.9																		

# The Dalles Dam Adult Fish Ladder River/Water Temperatures



The Dalles Dam Collection Channel Velocities (fps)



# The Dalles Dam Avian Zone Map

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

SW-T2

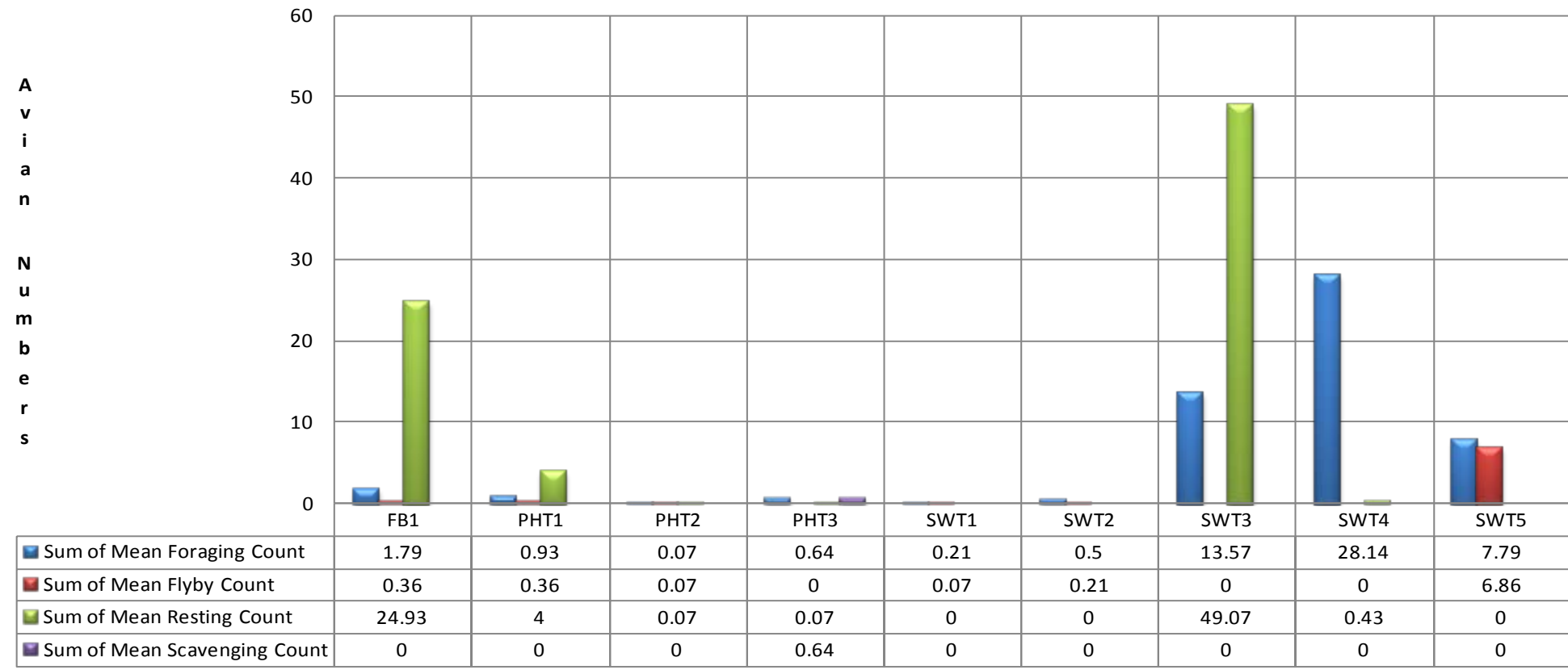
SW-T4

Oregon Shore

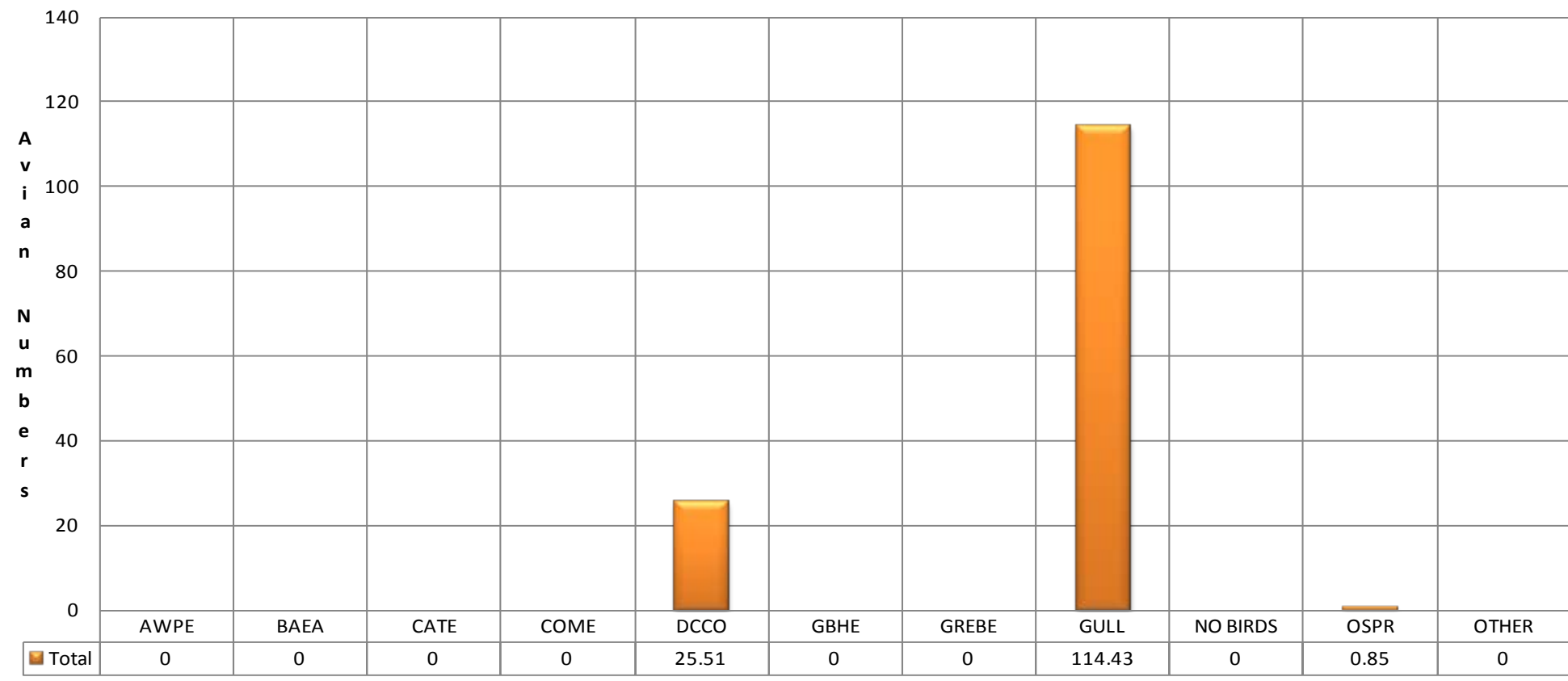
SW-T5



**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:	
66.8	SUN	5.0	
67.0	MON	5.0	
67.5	TUES	5.0	
68.0	WED	5.0	
67.7	THUR	5.0	
67.6	FRI	5.0	
67.8	SAT	5.0	
AVG: 67.5	AVG:	5.0	

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

= scada inspection

North Fish Ladder			East Fish Ladder											South Entrance		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	
7/7/13	1.4	9.9	1.4	3.0	12.7	12.7	11.7	1.4	8.8	8.8	b u l k h e a d  i n s t a l l e d	1.5	9.4	9.5	39.5	
7/7/13	1.3	9.9	1.5	3.1	13.1	13.2	11.9	1.4	9.6	9.3		1.5	9.4	9.5	39.4	
7/7/13			1.2	2.9	13.0	13.0	10.8	1.1	9.7	9.7		1.4	9.4	9.4		
7/8/13	1.4	9.9	1.6	3.1	12.6	12.7	11.5	1.5	8.6	8.5		1.5	9.5	9.5	40.1	
7/8/13	1.3	9.8	1.5	3.0	13.4	13.3	11.9	1.4	9.2	9.1		1.5	9.5	9.5	39.7	
7/8/13			1.3	3.0	13.1	13.0	11.2	1.1	9.4	9.4		1.5	9.4	9.4		
7/9/13	1.3	9.9	1.5	2.8	11.9	11.9	10.1	1.4	8.5	8.4		1.4	9.5	9.6	40.5	
7/9/13	1.3	9.9	1.5	3.0	12.0	12.0	10.7	1.3	8.5	8.6		1.4	9.5	9.6	39.8	
7/9/13			1.4	3.0	12.1	12.1	10.5	1.5	8.5	8.4		1.4	9.5	9.4		
7/10/13	1.3	9.9	1.5	3.0	12.0	12.0	10.5	1.5	8.5	8.4		1.4	9.5	9.6	42.0	
7/10/13	1.3	9.9	1.5	2.1	12.1	12.1	9.7	1.3	8.4	8.3		1.4	9.4	9.5	41.9	
7/10/13			1.5	3.1	12.0	12.0	10.3	1.4	8.3	8.3		1.4	9.6	9.5		
7/11/13	1.4	9.9	1.4	2.0	12.4	12.4	11.2	1.5	8.2	8.3		1.6	8.8	8.8	39.9	
7/11/13	1.4	10.1	1.4	2.1	12.6	12.6	11.0	1.5	8.2	8.3		1.6	8.9	9.0	40.3	
7/11/13			1.5	2.0	12.0	11.9	9.7	1.4	8.3	8.4		1.4	9.6	9.5		
7/12/13	1.3	9.9	1.5	-0.5	11.5	11.6	9.2	1.4	8.3	8.4		1.4	9.0	9.1	41.5	
7/12/13	1.3	9.8	1.5	-0.5	12.0	12.0	10.0	1.5	8.2	8.2	1.5	9.0	9.1	39.6		
7/12/13			1.5	-0.4	11.5	11.5	9.1	1.4	8.2	8.3	1.5	9.0	8.9			
7/13/13	1.3	10.0	1.4	0.0	12.4	12.5	10.1	1.5	8.3	8.4	1.6	8.8	8.9	41.4		
7/13/13	1.4	10.0	1.6	0.0	12.6	12.5	10.7	1.5	8.4	8.4	1.6	9.0	9.0	40.4		
7/13/13			1.5	-0.1	12.5	12.4	9.6	1.5	8.4	8.3	1.5	9.0	8.9			
<b>AVG:</b>	1.3	9.9	1.5	1.9	12.4	12.4	10.5	1.4	8.6	8.6	closed	1.5	9.3	9.3	40.4	

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