

# FISHWAY STATUS REPORT

Date: 5/6/2013  
Inspection Period: 4/28 to 5/4/2013

## 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:	18	Temperature:	#DIV/0! F
	Out of Criteria	Limit	Comments		Secchi:	4.4 Ft.
<b>NORTH FISHWAY</b>						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'	Window cleaned Apr. 29.			
Weir crest depth	0	1.0' ± 0.1'				
Entrance differential	0	1.0' - 2.0'	Average 1.3		Daily differentials & weir depths, see <b>AVGS</b> tab.	
Entrance weir N1	0	depth (≥ 8')	Average 9.7			
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	0	Per forebay	Auto adjusts 1' increments.			
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'	Window cleaned Apr 29; count station picketed leads raked May 2.			
Weir crest depth	0	1.0' ± 0.1'				
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed.			
East entrance differential	0	1.0' - 2.0'	Average 1.6		Daily differentials & weir depths, see <b>AVGS</b> tab.	
Entrance weir E1	0	No criteria	Average 13.8		Manually adjusted.	
Entrance weir E2	0	depth (≥ 8')	Average 13.8			
Entrance weir E3	0	depth (≥ 8')	Average 13.8			
Collection channel velocity	0	1.5 - 4 fps	Average 2.6		See <b>Velocities</b> tab for more complete information.	
Transportation channel velocity	0	1.5 - 4 fps	Average 2.2			
North channel velocity	0	1.5 - 4 fps	Average 2.4			
South channel velocity	0	1.5 - 4 fps	Average 2.8			
West entrance differential	1	1.0' - 2.0'	Average 1.4		0.8; Closed W3/Opened W1. Refer to comments.	
Entrance weir W1		Closed	Average 8.6		Entrance weir W1 installed May 1.	
Entrance weir W2	0	depth (≥ 8')	Average 8.8			
Entrance weir W3	0	depth (≥ 8")	Average 9.1			
South entrance differential	0	1.0' - 2.0'	Average 1.4		Daily differentials & weir depths, see <b>AVGS</b> tab.	
Entrance weir S1	0	depth (≥ 8')	Average 8.4		Manually adjusted.	
Entrance weir S2	0	depth (≥ 8')	Average 8.3			
<b>JUVENILE PASSAGE</b>						
Sluiceway operation	0	MU 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', wkly	Not completed.			
Spill volume	0	40%, 24hr	Average 39.9			
Spill Pattern	0	per FPP			Spill cap 100 KCFS.	
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

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

Bird observation data collected twice daily. Gull numbers high below spillway. See Avian tab for details. USDA started hazing operations Apr 16. Two separate sea lion sightings by dam anglers May 1; one with salmon near the west entrance. USDA hazing sea lions on request.

**Operations:**

Fish ways are operating in accordance to the Fish Passage Plan (FPP).

Current Outages: **See Fish Unit Outages Tab**

Main Unit 15, 16, and T8 forced out of service due to transformer oil problems. Return to service Aug. 8.

Main Unit 5 out of service Apr. 4 to May 9 for digital governor install and annual maintenance.

Main Unit 6 out of service Apr 4 to May 30 for digital governor install and annual maintenance.

Main Unit 21 out of service Apr 29 to June 6 for five year overhaul, as built, gen heat, heat exchanger, and cavitation.

Main Unit 21 out of service for overhaul Apr 29. Tailwater bulkhead sill for MU21 is in close proximity of the east fishway entrance flow.

Fish Unit 1 forced out of service at 0713 hrs. May 1 due to turbine pump failure; returned to service same day at 0735 hrs.

Fish Units reduced to half speed and east fishladder entrance closed 1200-1300hr on Apr 29 to reduce flow debris for Unit 21 bulkhead installation

Operation permissible in Fish Passage Plan, but also approved by FPOM team.

New avian line attachment pole constructed and to be installed to replace the failing one at west powerhouse. This pole covers west half powerhouse.

Entrance weir W1 installed May 1 with new plastic composite wheels. Plan to test through remainder of passage season. If successful these will be used on remaining weirs to reduce guide wear. W3 was closed per Fish Passage Plan.

North auxiliary water (PUD) intake rake crane out for hydraulic repair. Return unknown, pending budget status. Raked by mobile crane as needed.

Hungry goats were used for four days to remove vegetation along the north fish ladder with marginal results. The goats will be used again in Sept in order to complete the contract; after which a determination will be made on cost vs. benefits.

**Studies:**

**PIT** - Temporary Thin Wall PIT tag Antenna continues to work successfully. Troubleshooting for interference on north count station.

**EFL** - Fisheries continues to work with the East Fish Ladder backup PDT to develop a scope of work. The Project requested to include replacement of fishlock 42" valve as best cost benefit and to include removal of all old unneeded fish lock equipment. Follow up meeting to discuss projects requested item week of May 6.

**PUD** freedom turbine planning underway. Project support as needed. Relocation of osprey platform planned for next fall.

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

Fisheries involved with the Lamprey Improvements PDT to develop minor modifications to be completed this winter.

**Research/Contractors:**

Normandeau site visit Apr 30 to conduct routine and mandatory QA/QC fish counts.

Yakama and Umatilla tribes to collect lamprey via traps from count stations mid summer. Lamprey used in restocking efforts. Coordination underway.

USDA avian hazing primarily from downstream navlock peninsula to cover spillway. Also occasion pinned hazing at west entrance.

WDFW Pike minnow Dam Angling started May 1. The 2012 results report pending.

PSMFC fish sampling of the PUD juvenile bypass; there were 30 Chinook sub yearling fry this week, one was a mort.

Northern Pike Minnow Management Program ODFW evaluation: no sampling this week.

Project maintenance to remove I-beams at forebay pier noses. Date to be determined. Requires CRFM funding.

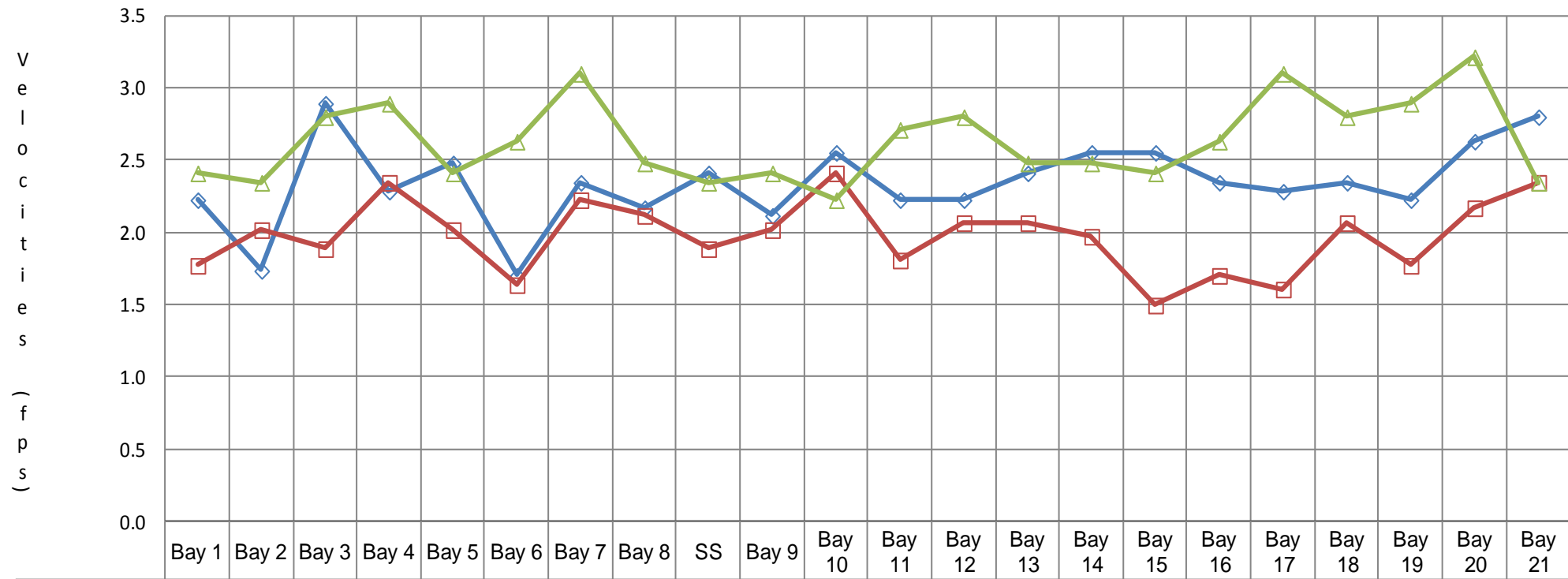
University of Idaho adult radio telemetry new antennas both fish ladders completed and operating.

Normandeau fish counters continuing 16hr daily fish counting at north and east count stations.

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



### The Dalles Dam Collection Channel Velocities (fps)

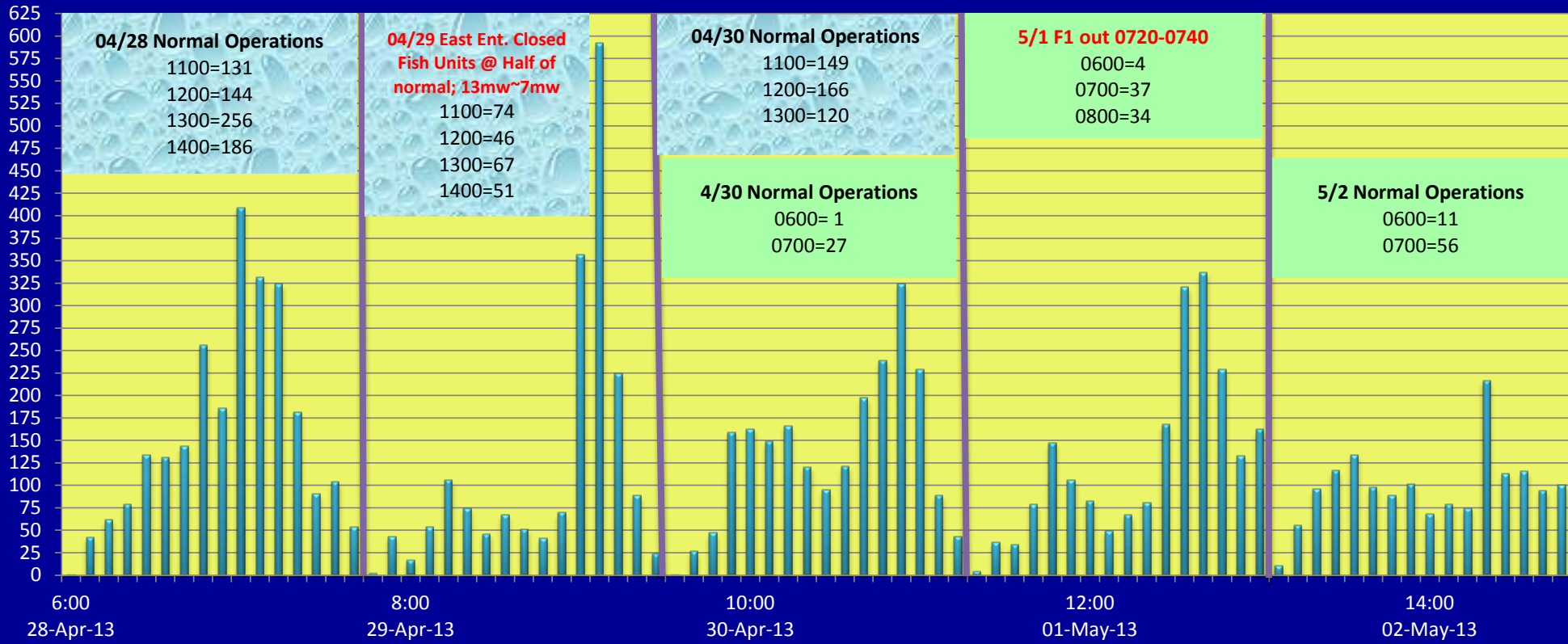


	Bay 1	Bay 2	Bay 3	Bay 4	Bay 5	Bay 6	Bay 7	Bay 8	SS	Bay 9	Bay 10	Bay 11	Bay 12	Bay 13	Bay 14	Bay 15	Bay 16	Bay 17	Bay 18	Bay 19	Bay 20	Bay 21
4/16/2013	2.2	1.7	2.9	2.3	2.5	1.7	2.3	2.2	2.4	2.1	2.6	2.2	2.2	2.4	2.6	2.6	2.3	2.3	2.3	2.2	2.6	2.8
4/23/2013	1.8	2.0	1.9	2.3	2.0	1.6	2.2	2.1	1.9	2.0	2.4	1.8	2.1	2.1	2.0	1.5	1.7	1.6	2.1	1.8	2.2	2.3
5/1/2013	2.4	2.3	2.8	2.9	2.4	2.6	3.1	2.5	2.3	2.4	2.2	2.7	2.8	2.5	2.5	2.4	2.6	3.1	2.8	2.9	3.2	2.3



# Chinook Passage vs Outages

Chinook



Problems with data logger software. Will include in next week report.

# The Dalles Dam Avian Zone Map

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T3

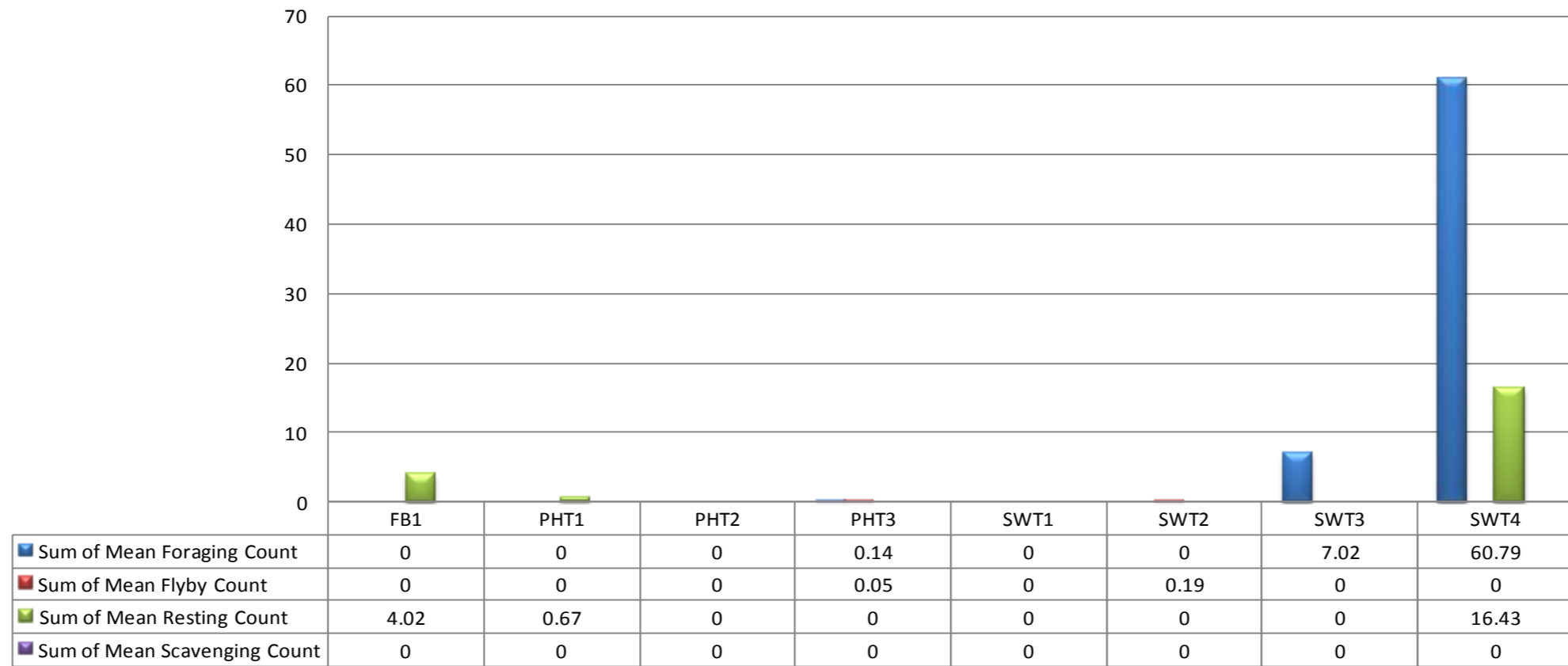
SW-T2

SW-T4

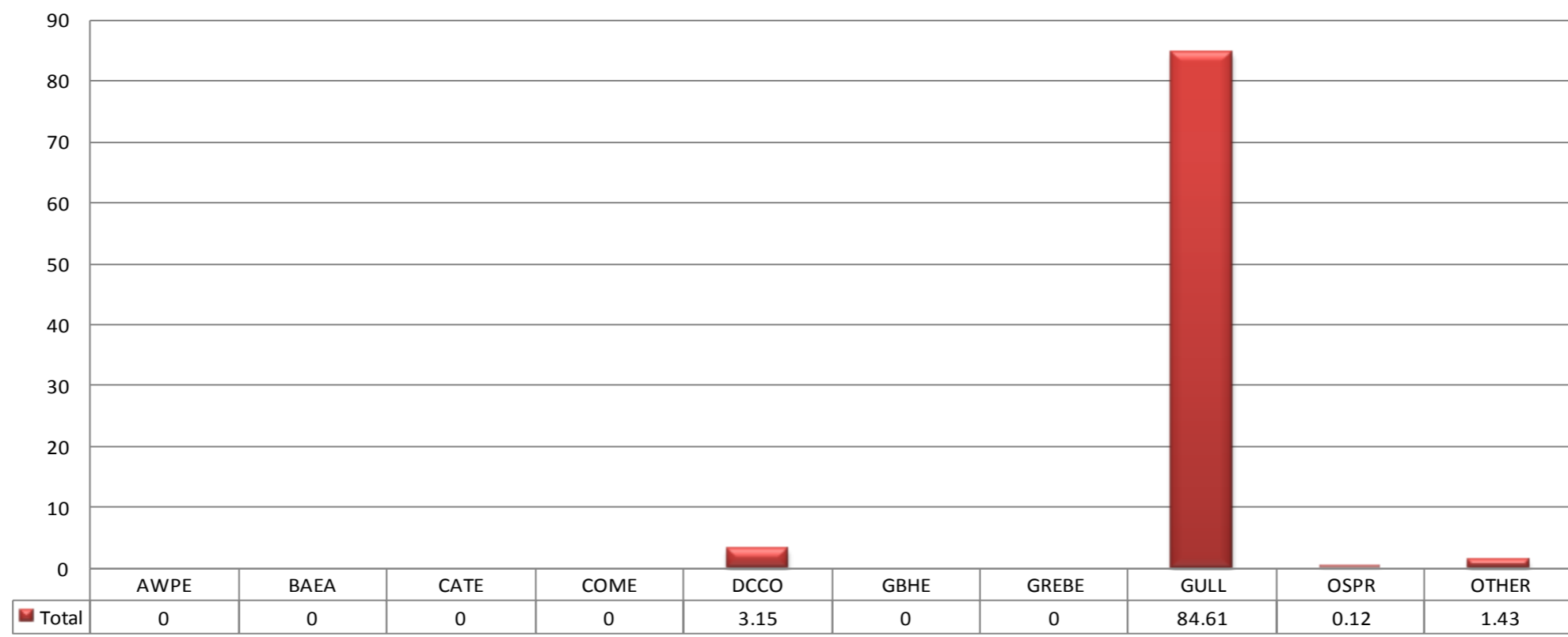
Oregon Shore



### Avian Mean Counts by Behavior



### Avian Mean Counts by Species



American White Pelican - (AWPE); Bald Eagle - (BAEA); Caspian Tern - (CATE); Common Merganser - (COME)

Double Crested Cormorant - (DCCO); Great Blue Heron - (GBHE); Grebe - (GREBE);

Gull - all species (GULL); Osprey - (Ospr)



Temp:		Secchi:
	SUN	4.0
	MON	3.5
	TUES	4.0
	WED	5.5
	THUR	4.0
	FRI	4.0
	SAT	5.5
AVG:	#DIV/0!	4.4

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

North Fish Ladder			East Fish Ladder													
<b>North Entrance</b>			<b>East Entrance</b>					<b>West Entrance</b>			<b>South Entrance</b>					
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth	% Spill	
4/28/13	1.4	9.8	1.6	3.7	13.9	13.9	12.3	1.5	C l o s e d	9.2	9.2	1.4	8.2	8.3	40.3	
4/28/13	1.3	9.9	1.6	3.9	13.9	13.9	12.1	1.5		9.1	9.1	1.5	8.1	8.1	39.5	
4/28/13			1.5	3.1	13.8	13.9		1.4		9.1	9.1	1.3	8.2	8.3		
4/29/13	1.3	7.8	1.5	2.8	14.0	14.0	11.4	1.4		8.8	8.8	1.4	8.3	8.3	39.8	
4/29/13	1.4	9.8	1.6	1.0	13.8	14.0	14.2	1.5		9.1	9.1	1.4	8.5	8.5	40.0	
4/29/13			1.4	3.2	14.0	14.1		1.2		8.9	8.9	1.2	8.4	8.4		
4/30/13	1.3	10.1	1.6	0.9	14.0	14.0	15.7	1.1		9.0	8.9	1.4	8.6	8.5	39.4	
4/30/13	1.3	9.9	1.4	1.1	14.1	14.0	11.4	1.4		9.1	9.0	1.3	8.6	8.5	40.5	
4/30/13																
5/1/13	1.3	9.9	1.5	1.0	14.0	13.9	12.2	0.8	Manual	9.0	9.1	1.2	9.2	8.4		
5/1/13	1.3	9.9	1.7	1.1	14.1	14.0	12.5	1.2		9.5	9.5	1.2	9.4	8.4	39.9	
5/1/13																
5/2/13	1.3	9.8	1.3	1.0	14.0	14.0	11.3	1.2	9.6	9.5	C l o s e d	1.3	8.5	8.6	40.4	
5/2/13	1.3	9.8	1.7	0.1	13.5	13.6	11.2	1.7	8.5	8.4		1.5	8.1	8.2		
5/2/13																
5/3/13	1.4	9.8	1.7	C l o s e d	13.6	13.6	12.0	1.8	8.5	8.6		1.6	8.1	8.1	40.0	
5/3/13	1.3	9.9	1.7		13.9	13.9	11.9	1.5	9.1	9.0		1.5	8.2	8.2	39.7	
5/3/13			1.7		13.4	13.4		1.7	8.5	8.4		1.5	8.1	8.1		
5/4/13	1.2	9.9	1.7		13.0	13.0	10.3	1.5	8.1	8.1		1.4	8.2	8.2	40.0	
5/4/13	1.3	9.9	1.9		13.4	13.5	12.2	1.7	8.1	8.2		1.5	8.2	8.2	39.6	
5/4/13			1.5		13.6	13.6		1.6	8.1	8.1	1.5	8.1	8.1			
<b>AVG:</b>	1.3	9.7	1.6		1.9	13.8	13.8	12.2	1.4	8.6	8.8	9.1	1.4	8.4	8.3	39.9