

# FISHWAY STATUS REPORT

Date: 05/12/13  
Inspection Period: 05/05-11/12

## 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: 20		Temperature:	54.7	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'					
Weir crest depth	1	1.0' ± 0.1'	out at 0.8'				
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	9.8			
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.	Out of criteria at forebay 158.0'			
Weir 158-159 differential	0	1.0' ± 0.1'					
Count station differential	0	≤ 0.3'					
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	1.5	Daily differentials & weir depths, see <b>AVGS</b> tab.		
Entrance weir E1	0	No criteria	Average	3.3	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	13.9			
Entrance weir E3	0	depth (≥ 8')	Average	13.9			
Collection channel velocity	0	1.5 - 4 fps	Average	2.2	See <b>Velocities</b> 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	2.5			
South channel velocity	0	1.5 - 4 fps	Average	2.9			
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	1.6	Daily differentials & weir depths, see <b>AVGS</b> tab.		
Entrance weir S1	0	depth (≥ 8')	Average	8.2	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	8.3			
<b>JUVENILE PASSAGE</b>							
Sluiceway operation	0	units 1,8,18					
Turbine trashrack drawdown	0	<1.5', wkly	range:	0.4 to 0.8'.			
Spill volume	6	40%, 24hr					
Spill Pattern	0	per FPP					
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. Exploring option of borrowing boat hazer's from John Day hazing crew. There were three sea lion sightings - all near the west entrance.

**Operations:**

Current Outages:

MU15, MU16, and T8 out due to transformer oil issues Return ~8/8/2013

MU6 out 0600 4/22/2013 to 1700 5/30/2013 for Digital Governor install/Annual Maintenance

MU21 out 1221 4/29/2013 to 1700 6/6/2013 for 5 Yr Overhaul

Gatewell drawdown was completed on 5/10/13. All values were within the 1.5' criteria and ranged from 0.4-0.8'.

Calibration check completed on 5/10/13. All values within criteria.

**Maintenance:**

New avian line pole for failing east powerhouse line grid fabricated. Maintenance to install next week.

W2 weir to be removed for wheel replacement. W1 and W3 entrances in services providing required 2 entrance opening per Fish Passage Plan.

PUD trashrack rake out of service for hydraulic line failure. Assessing cost of repair. Mobile crane to be used in the meantime as needed.

Maintenance investigating several small contained oil leaks on operating equipment for the east ladder to plan correction measures.

**Studies:**

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

PIT tag system recently missed two adults, dropping the detection efficiency from 100% to 99.62%. It is suspected that either these two fish went through one of the counting windows side by side, or both individually went through the navigation lock.

**EFL** - Continuing support for the East Fish Ladder backup PDT. Meeting held May 6 to determine need for fishlock valve room work. Decision to wait for results of the 10' pipe installation and hold fishlock valve room rehab as follow-on work if more water needed, or if valve room requires dismantling.

**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. Unit 11 results expected next week.

Fisheries involved with the Lamprey Improvements PDT to develop minor modification alternatives, including weir orifice plating in lower section.

**Research/Contractors:**

Normandeu site visit May 6 to conduct routine and mandatory QA/QC fish counts. Interference troubleshooting is underway for north count station.

Digital video fish counting to occur June 15 - Sept 30 from 2000 hrs to 0400 hrs.

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 pinniped hazing at west entrance.

Columbia River Northern Pikeminnow Management Program WDFW Dam Angling started May 1. Effort hours - 31, total NPM - 13, Sturgeon - 2, game fish - 1. Early morning catch rate is good; the afternoon is going slow. Fishing is only off the powerhouse tailrace deck.

PSMFC fish sampling of the PUD juvenile bypass: A complete sample was collected this week; two fry and no mort's. Fish condition was good, suggesting safe passage conditions through the dewatering structure.

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. U of I requests two electrical outlets to be installed; one for the HD-PIT lamprey antenna just below the east fishway count station, and the other at the west entrance.

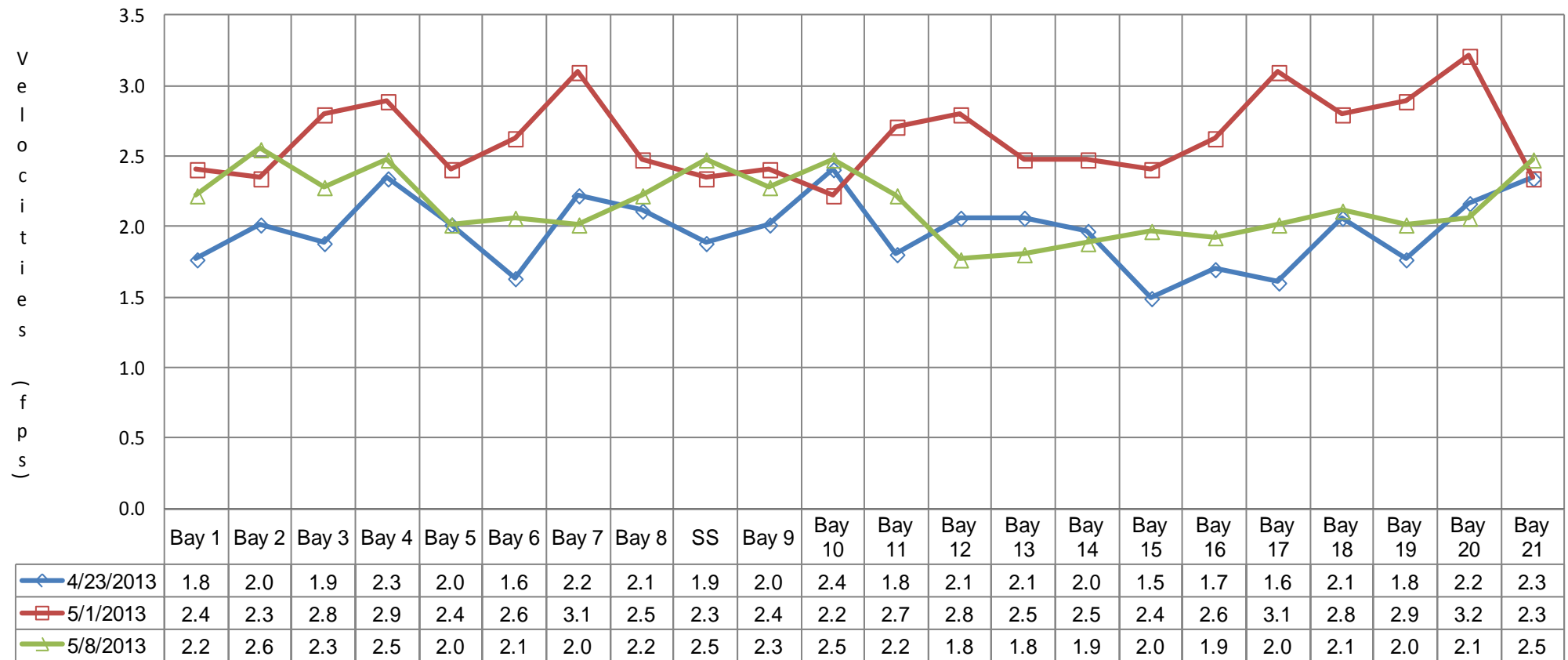
Approved by;  
Ron D. Twiner  
Operation Project Manager  
The Dalles Dam

## The Dalles Dam Fish Counts

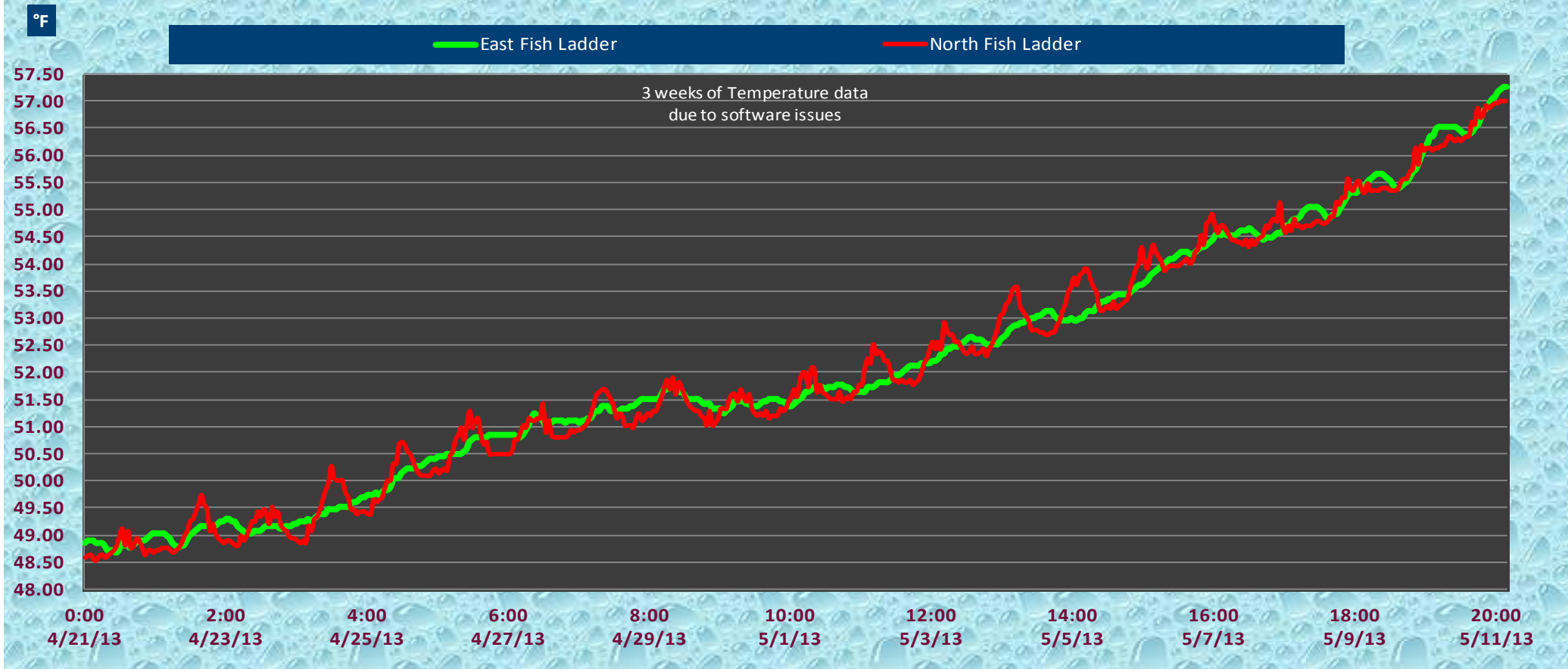
Date	East	North	East	North	Total	Total	East	North					East	North					
	Chinook	Chinook	Chinook	Chinook	East	North	Unclipped	Unclipped	East	North	East	North	Coho	Coho	East	North	East	North	Spill
	Adult	Adult	Jack	Jack	Sthd	Sthd	Sthd	Sthd	Sock	Sock	Coho	Coho	Jack	Jack	Lamprey	Lamprey	Pink	Pink	Volume
5-May	4626	1236	2053	214	2	2	1	0	0	0	0	0	0	0	0	0	0.0	0	195.8
6-May	1320	446	552	31	2	0	1	0	0	0	0	0	0	0			0.0	0	
7-May	2599	872	2054	113	12	1	4	0	0	0	0	0	0	0	0	0	0.0	0	222.7
8-May	2609	464	2610	48	9	0	2	0	0	0	0	0	0	0	0	0	0.0	0	245.1
9-May	1748	275	2188	42	12	0	4	0	0	0	0	0	0	0	0	0	0.0	0	230.8
10-May	2330	242	2244	44	2	0	0	0	-1	0	0	0	0	0			0.0	0	
11-May	1602	332	1960	65	8	0	1	0	0	0	0	0	0	0			0.0	0	
Wkly Tot	16834	3867	13661	557	47	3	13	0	-1	0	0	0	0	0	0	0	0	0	223.6
% Split	81.3%	18.7%	96.1%	3.9%	94.0%	6.0%	100.0%	0.0%	100.0%	0.0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	

Spill range: 37.9-40.1%

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



# The Dalles Dam Adult Fish Ladder River/Water Temperatures





# The Dalles Dam Maximum Daily Bird Observations

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

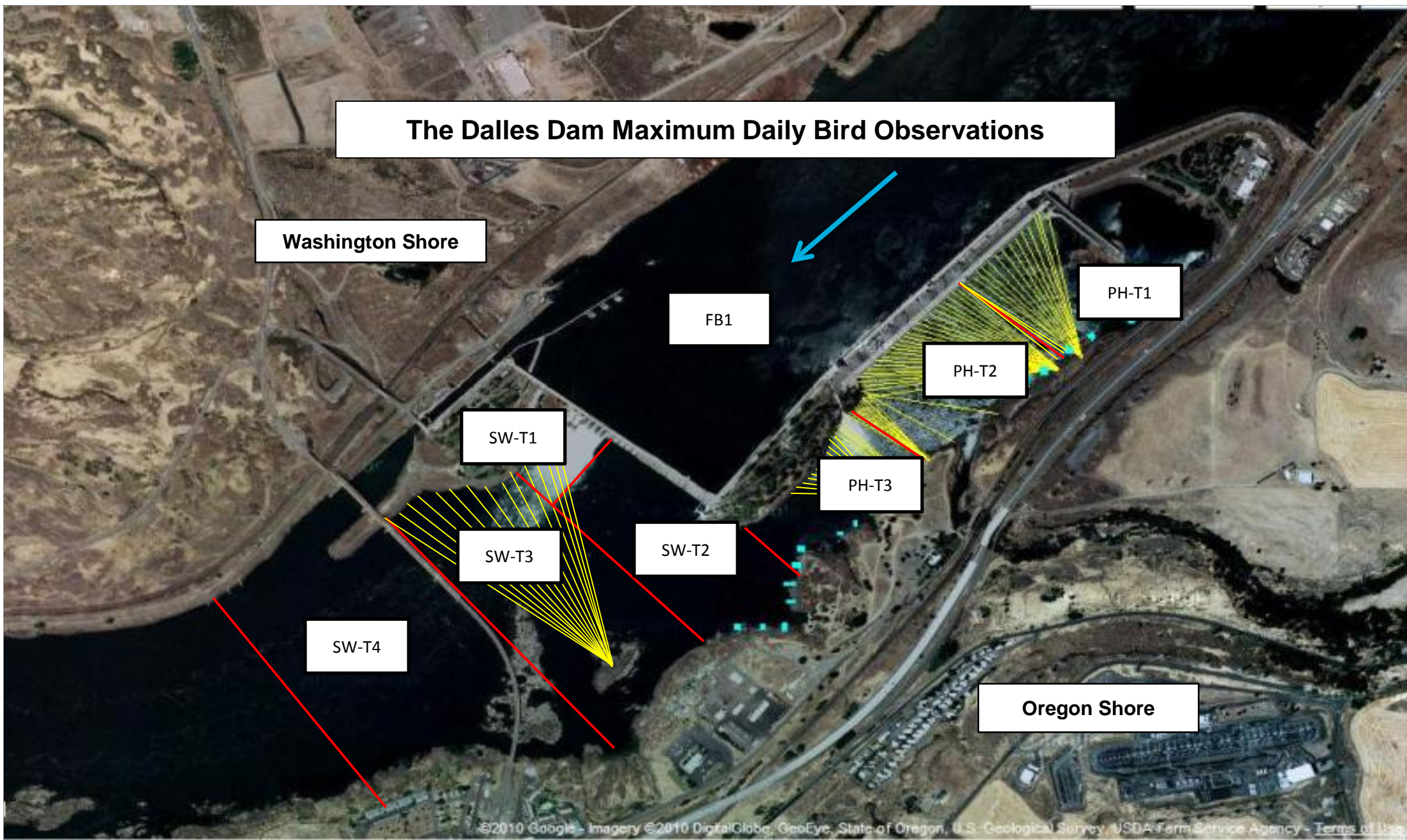
PH-T3

SW-T2

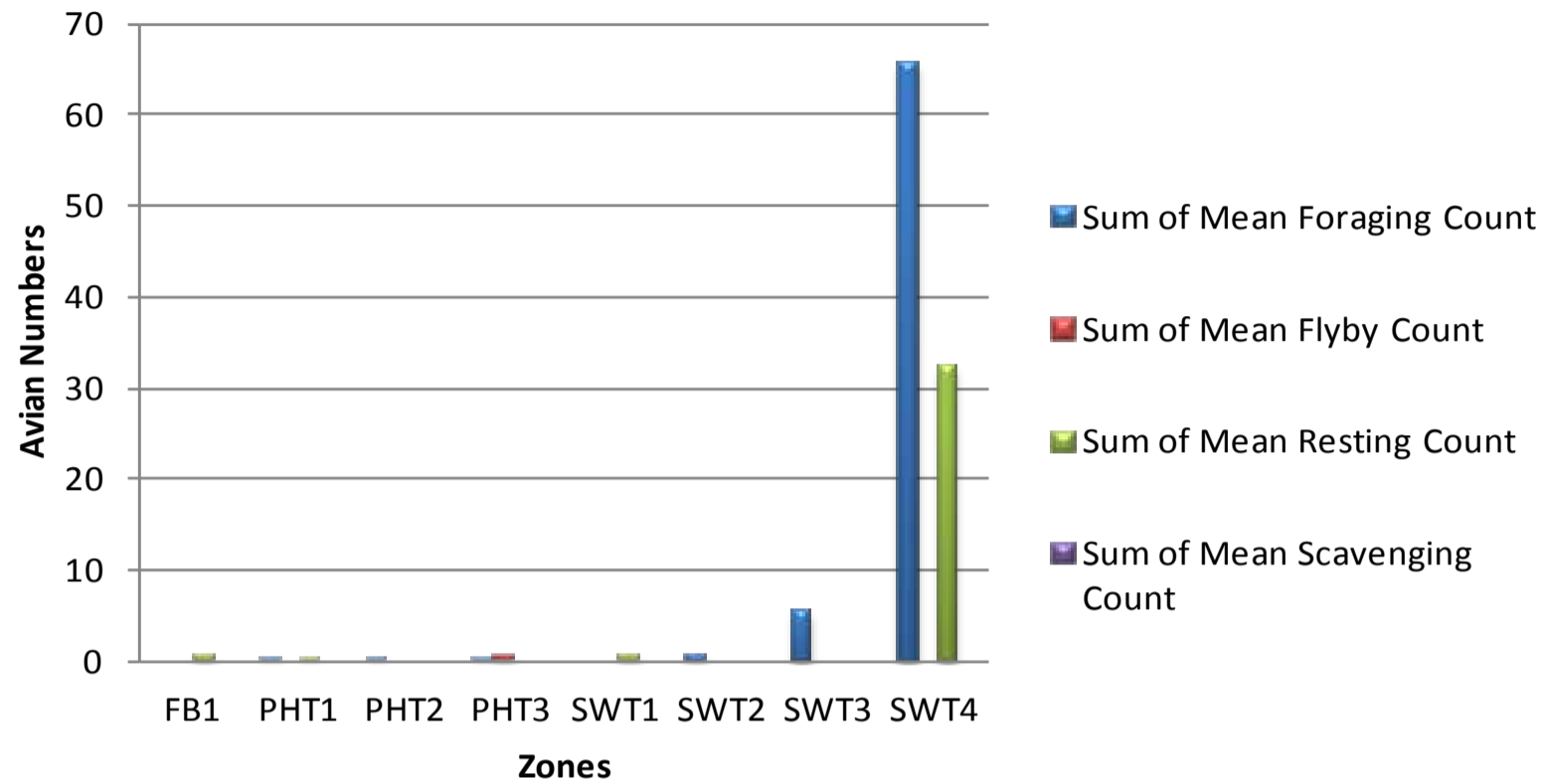
SW-T3

SW-T4

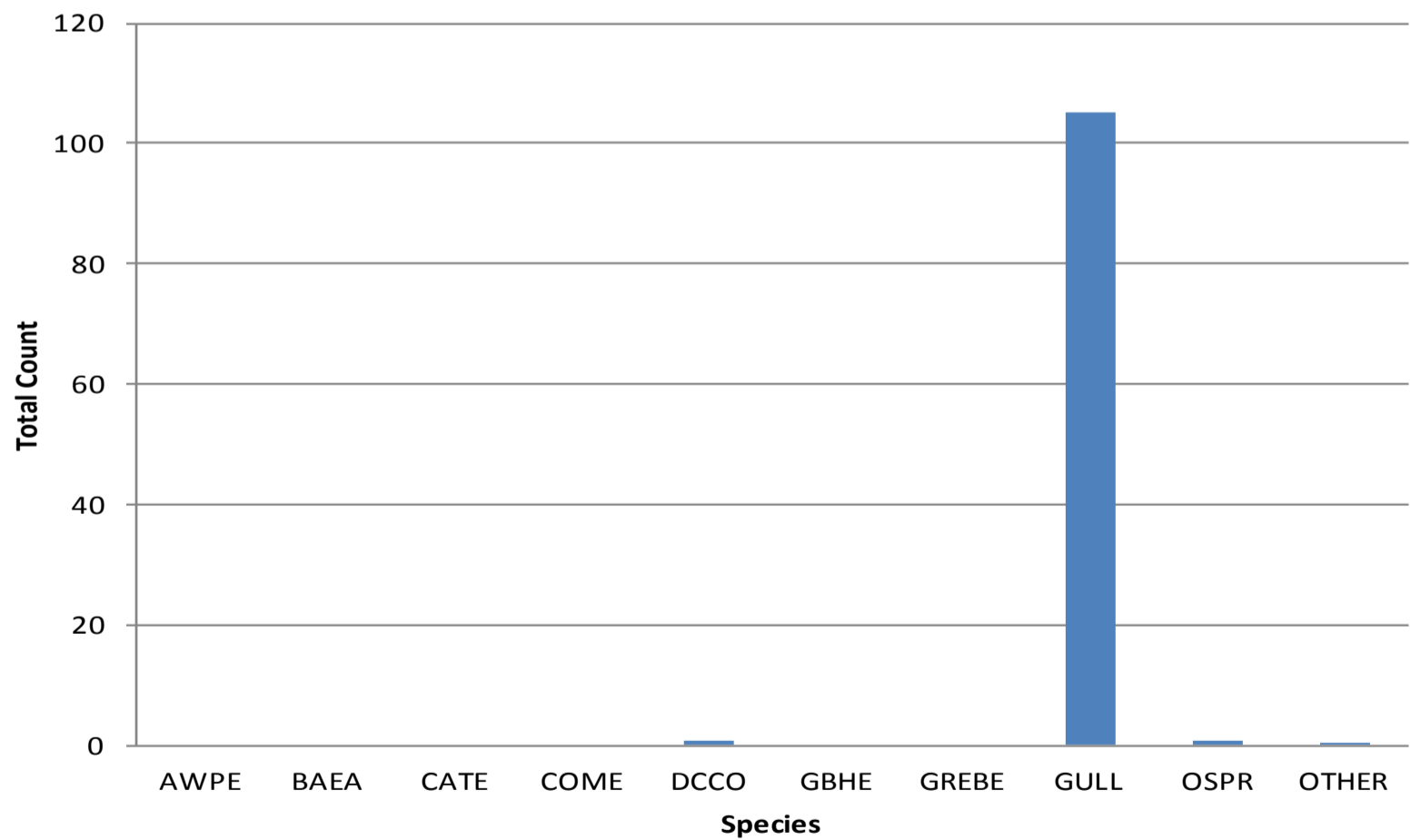
Oregon Shore



## 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:	
	53.1	SUN		5.0
	53.6	MON		5.0
	54.3	TUES		5.0
	54.6	WED		7.0
	55.1	THUR		4.5
	55.7	FRI		4.5
	56.6	SAT		4.0
AVG:	54.7	AVG:		5.0

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
5/5/13	1.3	9.8	1.5	0.8	13.0	13.0	9.9	1.3	8.6	8.6		1.4	8.0	8.1	40.8
5/5/13	1.3	9.8	1.3	1.4	13.4	13.4	10.5	1.4	8.4	8.4		1.4	8.0	8.1	39.8
5/5/13			1.3	1.3	13.5	13.5		1.4	8.6	8.6		1.4	8.1	8.2	
5/6/13	1.3	9.9	1.4	1.8	14.1	14.0	10.9	1.5	8.3	8.3		1.4	8.3	8.2	40.2
5/6/13	1.3	9.8	1.4	1.7	14.0	14.1	10.8	1.4	8.3	8.4		1.3	8.3	8.2	40.2
5/6/13			1.5	0.7	13.0	12.9		1.5	8.1	8.0		1.4	8.1	8.2	
5/7/13	1.3	9.8	1.4	1.7	14.1	14.1	10.8	1.4	8.4	8.4		1.5	8.1	8.2	39.0
5/7/13	1.3	9.8	1.6	2.4	14.1	14.0	11	1.6	9.9	9.9		1.5	8.2	8.1	40.2
5/7/13			1.5	1.3	14.1	14.0		1.5	8.4	8.4		1.4	8.3	8.3	
5/8/13	1.3	9.9	1.6	3.0	14.0	14.0	12.1	1.6	8.3	8.4		1.5	8.1	8.1	35.2
5/8/13	1.3	9.9	1.5	3.3	14.3	13.9	12.4	1.8	8.2	8.2		1.6	8.1	8.1	35.2
5/8/13			1.5	1.1	14.0	14.0		1.4	8.2	8.2		1.5	8.2	8.2	
5/9/13	1.4	9.8	1.6	1.9	14.0	14.0	12	1.6	9.0	9.0		1.6	8.2	8.1	35.5
5/9/13	1.3	9.9	1.6	2.1	14.0	14.0	12.4	1.6	9.1	9.0		1.5	8.1	8.2	39.4
5/9/13															
5/10/13			1.6	5.5	13.9	14.0	13.7	1.5	10.1	10.0		1.4	8.5	8.5	34.0
5/10/13	1.3	9.8	1.6	7.1	14.1	14.0	14.5	1.5	10.4	10.3		1.4	8.5	8.6	36.9
5/10/13			1.9	2.0	14.0	14.1		1.9	9.1	9.0		1.6	8.3	8.3	
5/11/13	1.4	9.8	1.5	10.5	14.0	14.0	16.6	1.5	12.0	12.0		1.6	8.5	8.5	31.9
5/11/13	1.4	9.8	1.5	9.9	14.1	14.1	15.8	1.6	11.0	11.0		1.5	8.5	8.5	35.6
5/11/13			1.6	7.0	14.0	13.9		1.6	10.4	10.5		1.6	8.4	8.4	
<b>AVG:</b>	1.3	9.8	1.5	3.3	13.9	13.9	12.4	1.5	9.1	9.1	Closed	1.5	8.2	8.3	37.4

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