

FISHWAY STATUS REPORT

Date: 6/23/2013
 Inspection Period: 6/16 to 6/22/2013

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:	62.9	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 6/18/13.				
Weir crest depth	0	1.0' ± 0.1'					
Entrance differential	0	1.0' - 2.0'	Average	1.4			
Entrance weir N1	0	depth (≥ 8')	Average	9.9			
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 6/13.				
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	#DIV/0!	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	12.3			
Entrance weir E3	0	depth (≥ 8')	Average	12.2			
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	1.4			
Entrance weir W1	0	depth (≥ 8')	Average	8.6			
Entrance weir W2	0	depth (≥ 8')	Average	8.5			
Entrance weir W3	0	No criteria	Average	closed			
South entrance differential	0	1.0' - 2.0'	Average	1.3	Daily differentials & weir depths, see AVGS tab.		
Entrance weir S1	0	depth (≥ 8')	Average	9.0	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	9.0			
JUVENILE PASSAGE							
Sluiceway operation	2	units 1,8,18	MU 8 out of service air leak in accuator tank.				
Turbine trashrack drawdown	0	<1.5', wkly	Range	0.2-0.6			
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 06/21. All values were within the 1.5' criteria and ranged from 0.2' to 0.6'.

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

Maintenance:

North intake trashrack and PUD intake rake dismantled for hydraulic line repairs. On hold due to budget constraints. Raking done with mobile crane.

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

Studies:

PIT - Temporary Thin Wall PIT tag Antenna continues to work successfully. Plans to replace all aluminum paneling over north count station to correct noticeable minor interference. Wall enclosure constructed by Natural Resources around north PIT computer room as time permits.

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 memorandum of understanding for present operation 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 RT new antennas both fish ladders completed and operating. Conduit and two new electrical outlets installation underway.

CRITFC tribes to trap adult lamprey from east count station picket leads to start 6/24. To be used for translocation, research, and/or brood stock.

ODFW and Pacific States Marine Fisheries Commission collecting gut samples of pikeminnow from dam anglers through August. Samples containers were being cleaned over deck grating covering the transportation channel. This practice will no longer occur.

WDFW pikeminnow dam angling Jun10-16 catch rate ws 306. Year to date at 822. No electrofishing effort this week.

Fish counting continues with Normandeau staff. Refer to fish count web site for latest results. Digital night fish counts Jun15-Sep30.

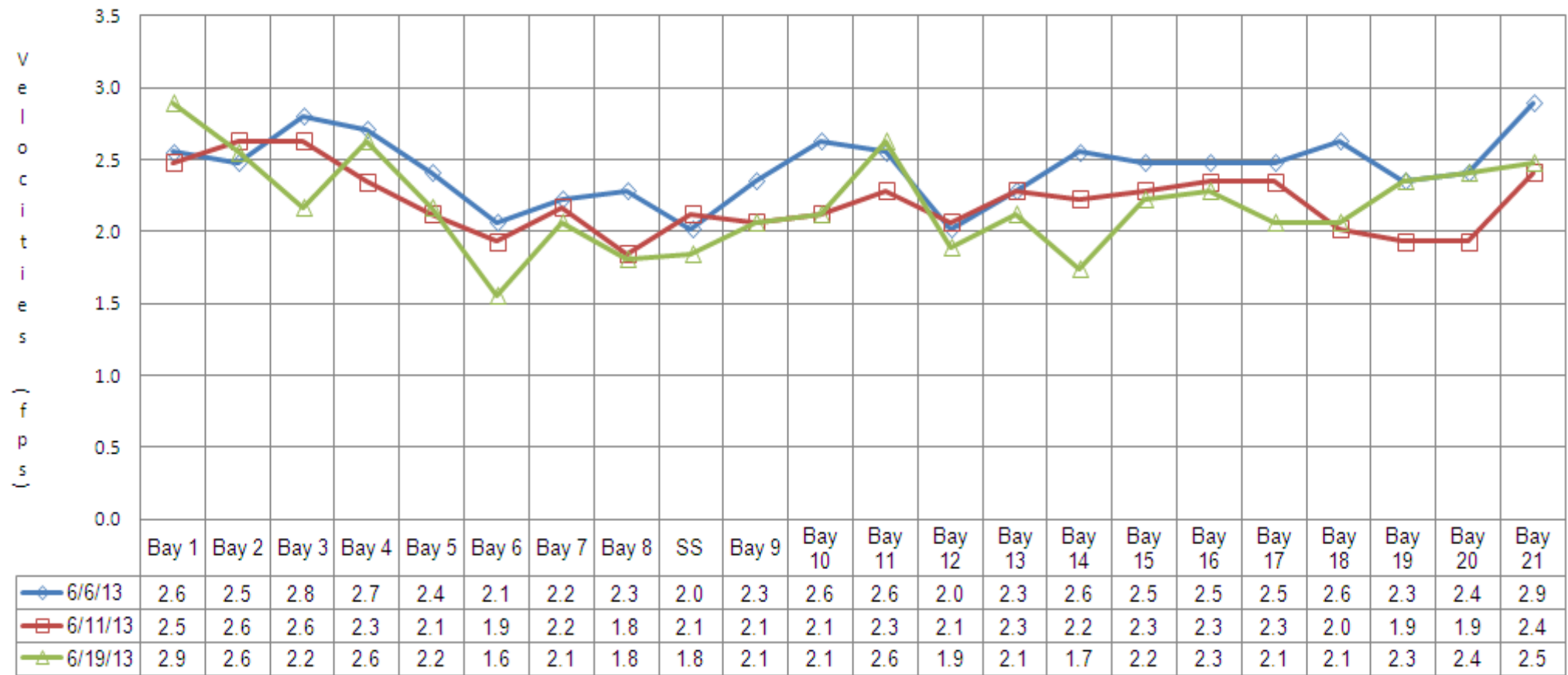
Pacific States Marine Fisheries Commission fish sampling of the PUD juvenile bypass. Debris minimal. Refer to PSMFC PUD weekly report #13-11.

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

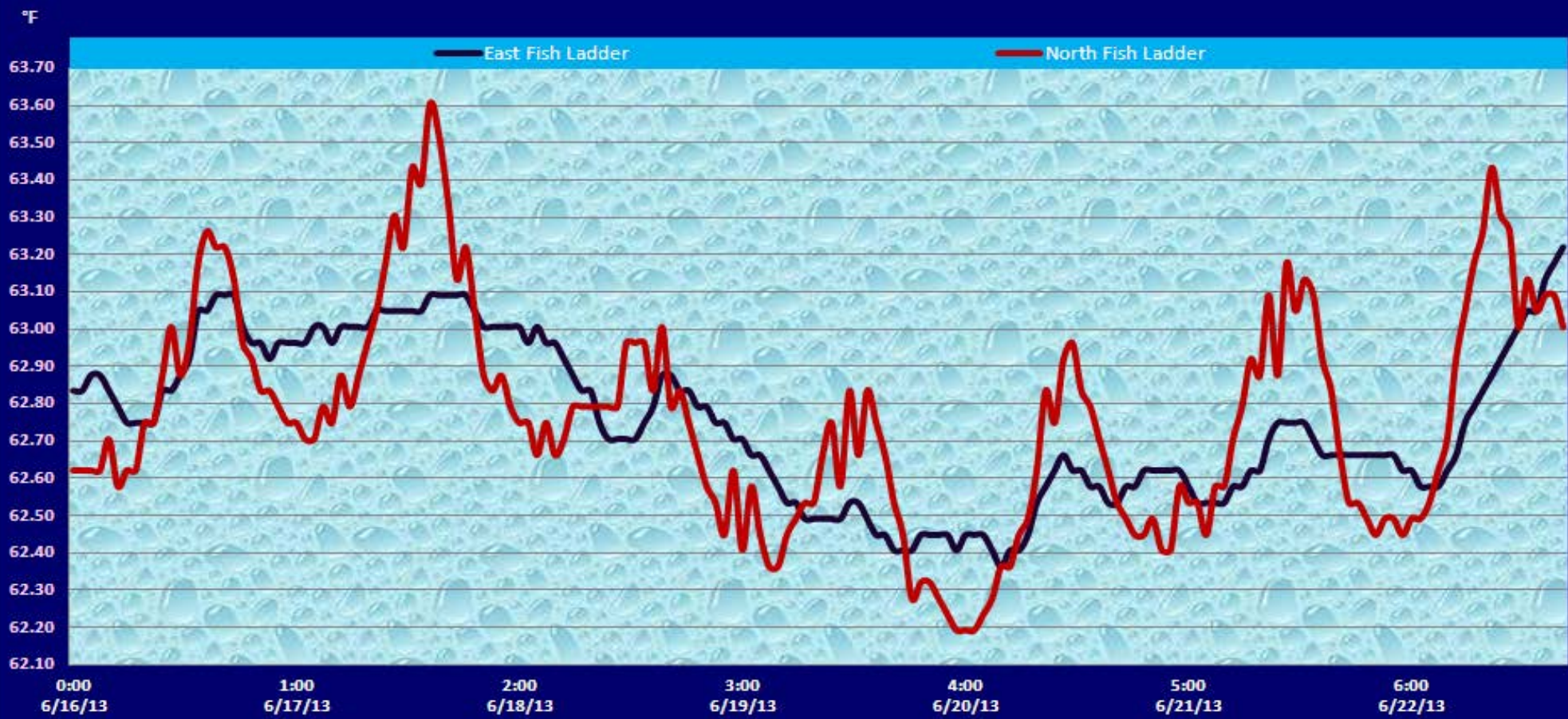
Project maintenance to remove I-beams at forebay pier noses this summer. Funding in place.

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

The Dalles Dam Collection Channel Velocities (fps)



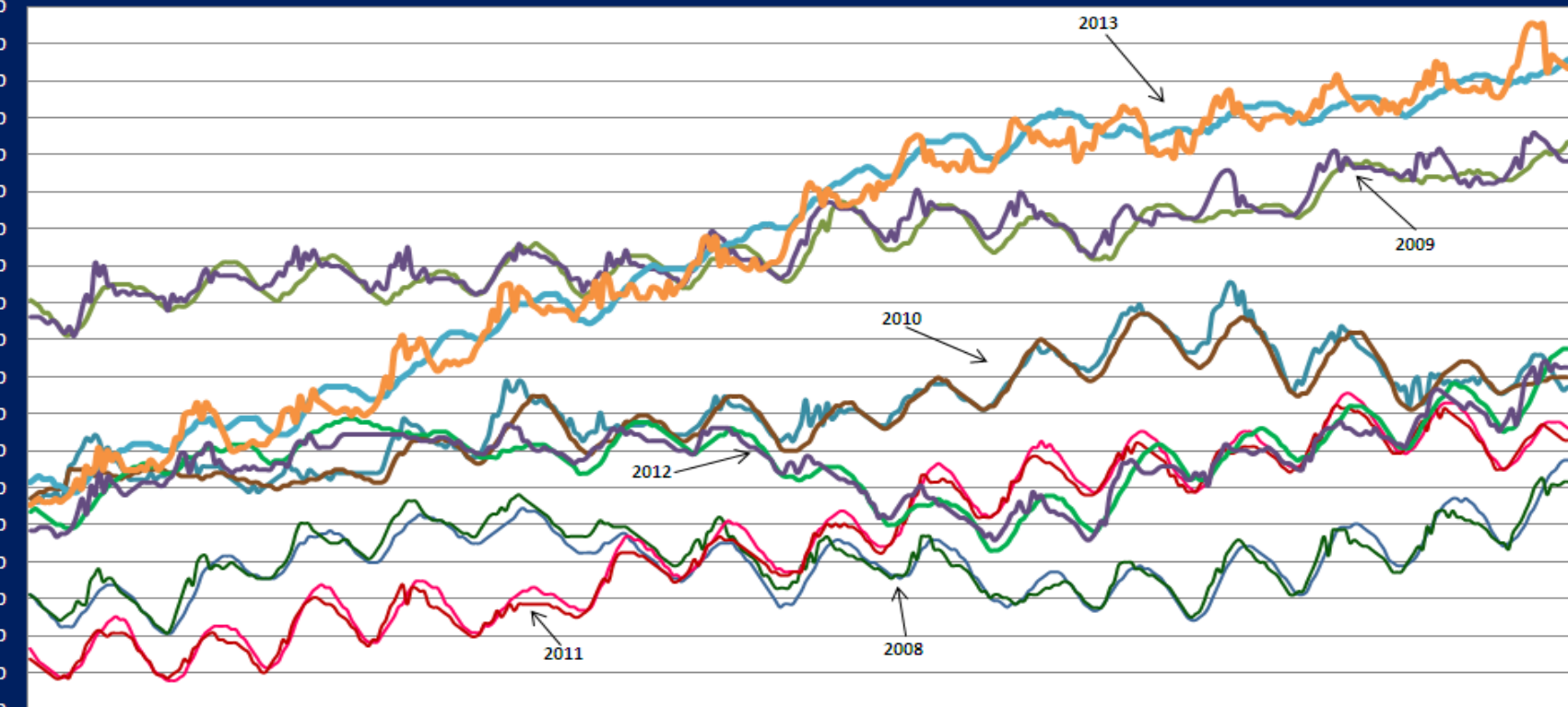
The Dalles Dam Adult Fish Ladder River/Water Temperatures



The Dalles Dam Adult Fish Ladder River/Water Temperatures; 2008-2013

°F

63.50
63.00
62.50
62.00
61.50
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0:00 1:00 2:00 3:00 4:00 5:00 6:00 7:00 8:00 9:00 10:00 11:00 12:00 13:00 14:00
6/1 6/2 6/3 6/4 6/5 6/6 6/7 6/8 6/9 6/10 6/11 6/12 6/13 6/14 6/15

The Dalles Dam Avian Zone Map

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

SW-T2

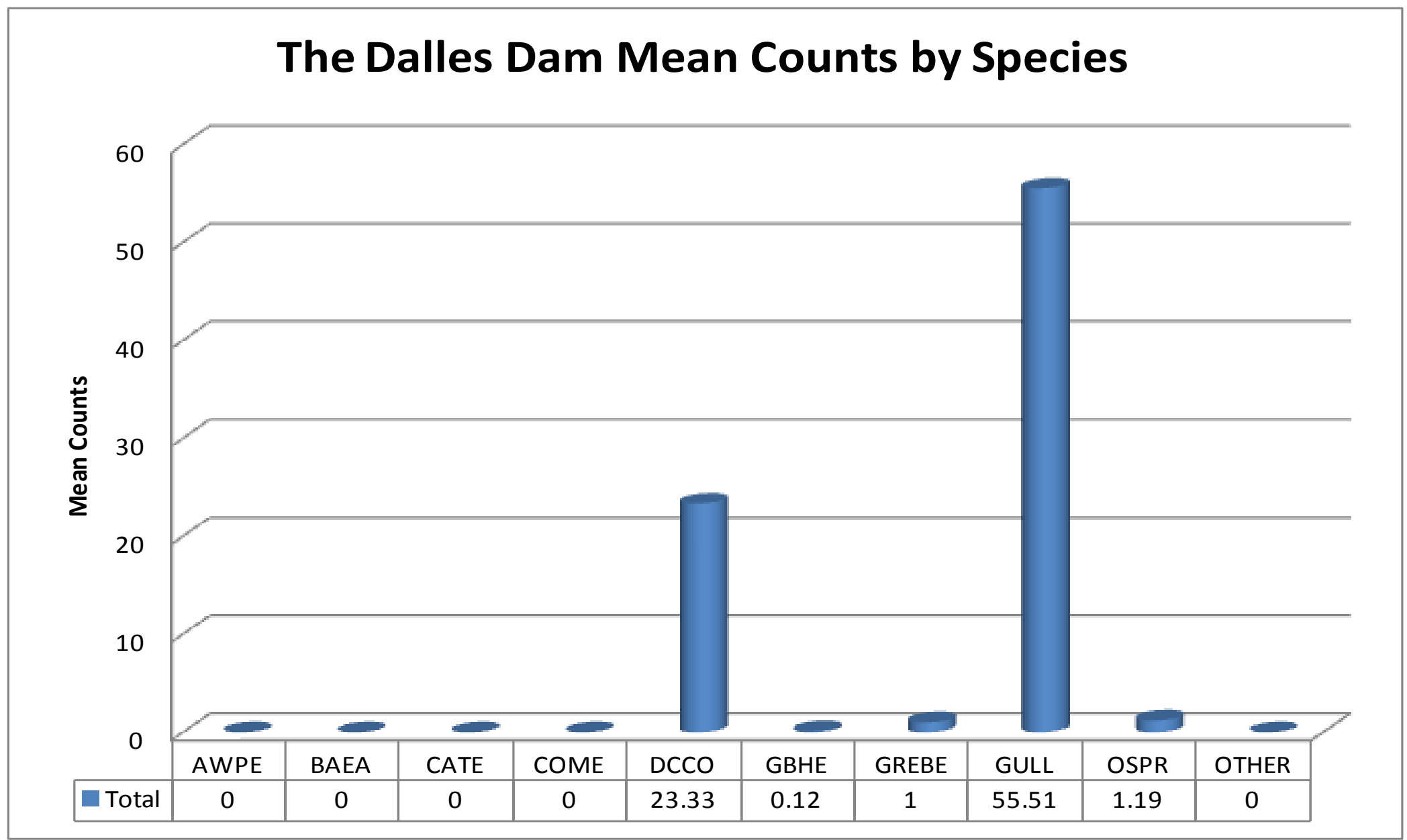
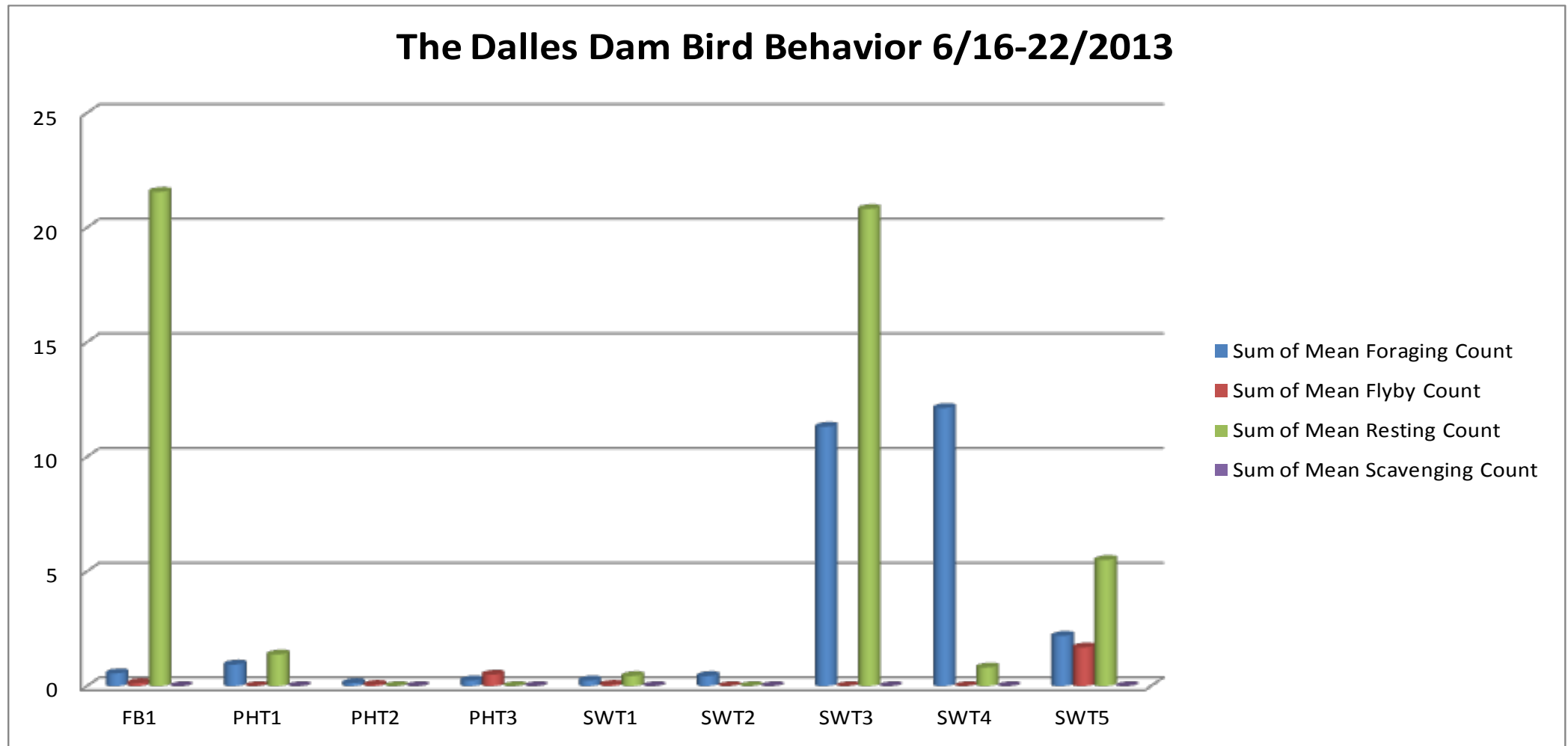
SW-T3

SW-T4

Oregon Shore

SW-T5





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; OSPR - Osprey

Temp:		Secchi:
63.0	SUN	4.0
63.1	MON	4.0
62.9	TUES	5.0
62.7	WED	5.0
62.6	THUR	5.0
62.8	FRI	5.0
62.9	SAT	5.0
AVG: 62.9	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
6/16/13	1.3	9.7	1.4		12.5	12.4	10.6	1.5	8.5	8.4		1.4	9.5	9.6	40.4
6/16/13	1.3	9.9	1.6		12.0	11.9	10.9	1.6	8.3	8.2		1.6	9.1	9.0	40.2
6/16/13			1.6		12.6	12.4		1.5	8.5	8.6		1.5	9.1	9.1	
6/17/13	1.3	9.9	1.5		11.5	11.5	9.9	1.4	8.2	8.3		1.5	9.0	9.1	39.6
6/17/13	1.3	9.8	1.5		12.5	12.5	11.3	1.5	8.6	8.5		1.5	9.0	9.1	40.2
6/17/13			1.4		12.0	12.0	9.4	1.4	8.1	8.2		1.5	8.9	9.0	
6/18/13	1.3	9.9	1.4		12.1	12.0	10.6	1.4	8.6	8.6		1.5	9.0	9.0	38.0
6/18/13	1.3	9.9	1.6		13.1	13.0	12.6	1.7	8.9	8.9		1.6	9.0	9.1	39.6
6/18/13			1.4		12.1	12.0	10.6	1.4	8.6	8.6		1.5	9.0	9.0	
6/19/13	1.7	9.9	1.4		12.1	12.0	10.2	1.4	8.1	8.2		1.5	9.0	9.0	40.2
6/19/13	1.4	10.0	1.5		12.1	12.1	10.9	1.5	8.2	8.3		1.6	9.0	9.0	40.1
6/19/13			1.5		12.1	12.0	9.8	1.3	8.4	8.4		1.4	9.0	9.0	
6/20/13	1.4	9.8	1.6		12.0	12.1	10.7	1.5	8.1	8.1		1.5	8.9	8.9	40.2
6/20/13	1.3	9.9	1.8		12.1	12.1	11.8	1.7	8.5	8.5		1.6	9.0	9.0	40.3
6/20/13			1.5		11.9	11.9	10.0	1.5	8.1	8.1		1.5	8.9	8.9	
6/21/13	1.4	9.7	1.8		11.6	11.6	10.5	1.3	8.9	8.7		1.4	9.0	9.0	39.3
6/21/13	1.3	9.8	1.7		12.7	12.7	11.6	1.5	9.0	9.0		1.6	8.9	8.9	40.5
6/21/13			1.2		12.5	12.5		1.1	9.1	9.2		1.4	9.0	9.0	
6/22/13	1.3	10.0	1.3		12.9	12.7	11.3	1.4	9.0	8.6		1.5	9.0	9.1	39.6
6/22/13	1.4	10.0	1.5		12.8	12.8	12.4	1.4	9.1	9.1		1.7	9.1	9.0	40.2
6/22/13			1.2		13.0	13.0		1.2	9.0	8.8		1.3	9.2	9.2	
AVG:	1.4	9.9	1.5	#DIV/0!	12.3	12.2	10.8	1.4	8.6	8.5	closed	1.5	9.0	9.0	39.9

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

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 [Righ	Outflow (kcfs)
	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	#						
6/16	28.1	739	71.9	1895	34.5	216	65.5	410	58.6	17	41.4	12	0	0	100	7	55.2	1930	44.8	1564		0		0		0		0	66.7	24	33.3	12	40.2	191
6/17	38.4	887	61.6	1422	58.8	293	41.2	205	64.1	25	35.9	14	87.5	7	12.5	1	65.3	2279	34.7	1212		0		0		0		0	30.4	14	69.6	32	40.1	189.8
6/18	58.6	1127	41.4	796	81.4	421	18.6	96	90.5	38	9.5	4	80	8	20	2	85.6	3012	14.4	505		0		0		0		0	46.4	32	53.6	37	39.9	204.4
6/19	50.9	1090	49.1	1052	60.4	376	39.6	247	76.9	60	23.1	18	66.7	12	33.3	6	67.6	3540	32.4	1699		0		0		0		0	26.8	19	73.2	52	39.9	195.1
6/20	53.5	1260	46.5	1097	71	427	29	174	81.3	61	18.7	14	85.7	12	14.3	2	76.5	3956	23.5	1214		0		0		0		0	6.5	2	93.5	29	40.1	197.2
6/21	55.5	1009	44.5	809	71.7	352	28.3	139	80	68	20	17	80	20	20	5	74.7	3336	25.3	1130		0		0		0		0	41.5	17	58.5	24	40.3	169.4
Date	Chinook				Jack Chinook				Steelhead				Steelhead Wild				Sockeye				Coho				Jack Coho				Lamprey				Spill Pct	Outflow
YTD	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct	Left Ladder Pct	Right Ladder Pct						
	46.4	53.6	62.1	37.9	77.3	22.7	72	28	71.1	28.9																								

Right Ladder is the north ladder
 Left Ladder is the east ladder