

FISHWAY STATUS REPORT

Date: 5/13/2013
 Inspection Period: 5/12 - 5/18/2013

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:	20	Temperature:	57.2	F
Out of Criteria	Limit	Comments	Secchi:	4.2	Ft.		
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'					
Weir crest depth	0	1.0' ± 0.1'	Out of criteria at 0.8'				
Entrance differential	0	1.0' - 2.0'	Average	1.4	Daily differentials & weir depths, see AVGS tab.		
Entrance weir N1	0	depth (≥ 8')	Average	14.8			
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'					
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	9.6	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	14.0			
Entrance weir E3	0	depth (≥ 8')	Average	14.0			
Collection channel velocity	0	1.5 - 4 fps	Average	2.4	See Velocities tab for more complete information.		
Transportation channel velocity	0	1.5 - 4 fps	Average	2.0			
North channel velocity	0	1.5 - 4 fps	Average	1.8			
South channel velocity	0	1.5 - 4 fps	Average	2.2			
West entrance differential	0	1.0' - 2.0'	Average	1.5			
Entrance weir W1	0	depth (≥ 8')	Average	10.9			
Entrance weir W2	0	depth (≥ 8')	Average	10.9			
Entrance weir W3	0	No criteria	Average	2.5			
South entrance differential	0	1.0' - 2.0'	Average	1.6	Daily differentials & weir depths, see AVGS tab.		
Entrance weir S1	0	depth (≥ 8')	Average	8.5	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	8.5			
JUVENILE PASSAGE							
Sluiceway operation	0	units 1,8,18					
Turbine trashrack drawdown	0	<1.5', wkly	Range:	0.4 to 0.8'.			
Spill volume	10	40%, 24hr	Gas cap issues				
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. Gull numbers high below spillway. A new avian zone (SW-T5) has been created due to the high numbers of gulls resting, flyby, and foraging below SW-T4 which is downstream from the green coast guard marker to the islands. See avian zones map and distribution tabs. Boat hazer's from John Day were brought downstream for two days to The Dalles Dam due to high numbers of gulls downstream of the bridge. There was one sea lion sightings near the west entrance.

Sturgeon

Large sturgeon returning to the lower east fishladder due to the arrival of shad. Several noted at lower ladder and junction pool areas.

Operations:

Current Outages:

Main Unit 15, 16, and T8 forced out of service due to high levels of combustible gas in the transformer oil. Return to service ~ Aug 8.

Main Unit 6 out of service Apr 22 to May 5 for digital governor install and annual maintenance.

Main Unit 21 out of service Apr 29 to June 20 for five year overhaul, as built, gen heat, heat exch and cavitation.

Main Unit 11 out of service May 13 to June 22 for digital governor installation and annual maintenance.

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 5/16/13. All values within criteria.

Shad numbers increasing to over 5K daily at Bonneville. East fishway adjusted to 1.3 over weir flow. North will not be changed due to lack of shad.

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

Maintenance:

Work to start on west entrance W2 weir for wheel replacement. West entrance will remain in criteria with remaining two open entrance weirs.

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

The Oil Accountability and Leak Protocols on the fishway equipment are being reviewed.

Fish unit tripped off line with SUA change over contract; trouble report intends to correct the cause of trip.

Studies:

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

An aluminum shading panel over the count slot was replaced with a wooden one due to an possible interference with PIT antenna.

The north PIT Tag Room is being constructed around the computer platform. Equipment protected with plastic during construction.

EFL - Team contemplating valve room repair as part of the the main construction of the of the 10' intake pipe.

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

Lamprey - Cooling water filter checked for juvenile lamprey for Unit 11 on 5/14. Five juvenile lamprey mortalities collected.

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

Research/Contractors:

Oregon Department of Fish and Wildlife/Pacific States Marine Fisheries Commission will be sampling the digestive tracts of northern pikeminnow from dam angler catch from May 20 to Aug 2013.

Normandeau 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.

Columbia River Northern Pikeminnow Management Program WDFW Dam Angling started May 1.

Northern Pike minnow Mangement Program ODFW evaluation: # NPM tagged year to date - 44, # NPM recaptured year to date - 2, # NPM undersized year to date - 81.

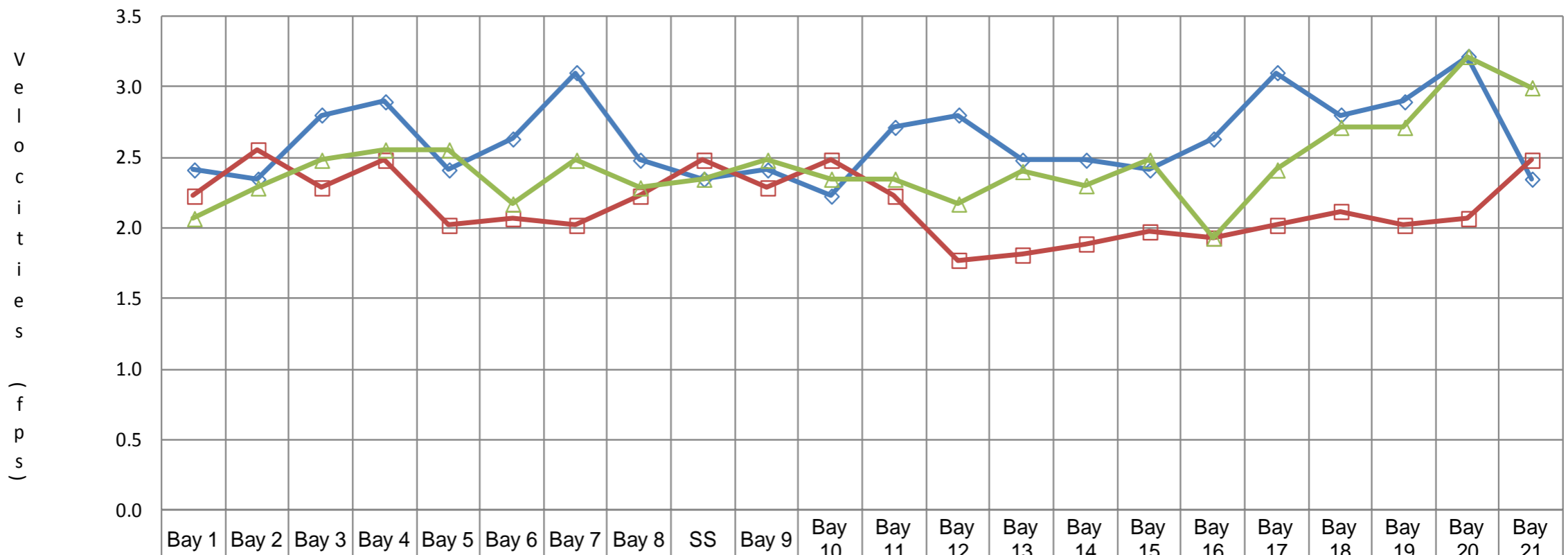
Pacific States Marine Fisheries Commission fish sampling of the PUD juvenile bypass: A complete sample was collected this week. There were 14 fry in the sample. See PSMFC Northern Wasco County PUD Weekly Report #13-6 for a more additional information.

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.

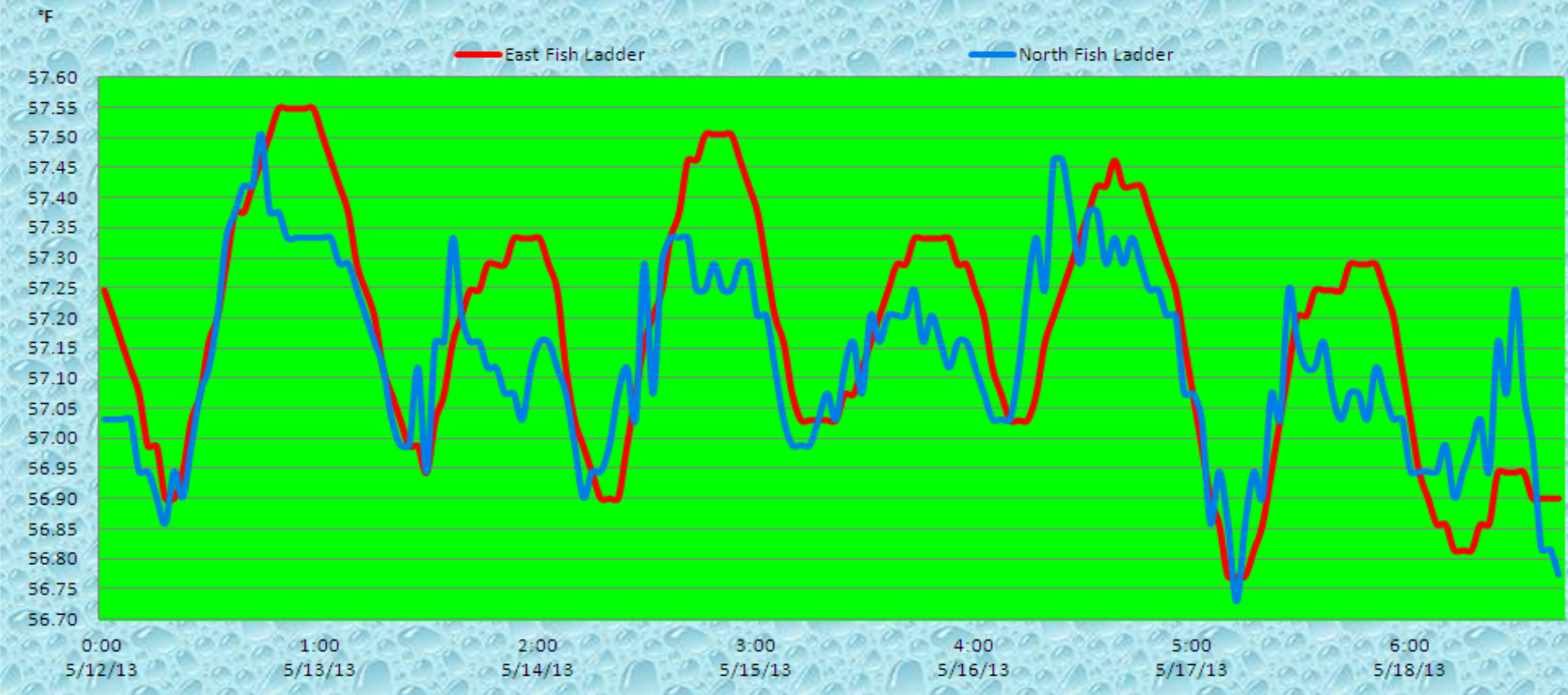
Approved by;
Ron D. Twiner
Operation Project Manager
The Dalles Dam

The Dalles Dam 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
5/1/2013	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
5/8/2013	2.2	2.6	2.3	2.5	2.0	2.1	2.0	2.2	2.5	2.3	2.5	2.2	1.8	1.8	1.9	2.0	1.9	2.0	2.1	2.0	2.1	2.5
5/14/2013	2.1	2.3	2.5	2.6	2.6	2.2	2.5	2.3	2.3	2.5	2.3	2.3	2.2	2.4	2.3	2.5	1.9	2.4	2.7	2.7	3.2	3.0

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



The Dalles Dam Maximum Daily Bird Observations

Washington Shore

FB1

PH-T1

PH-T2

SW-T1

PH-T3

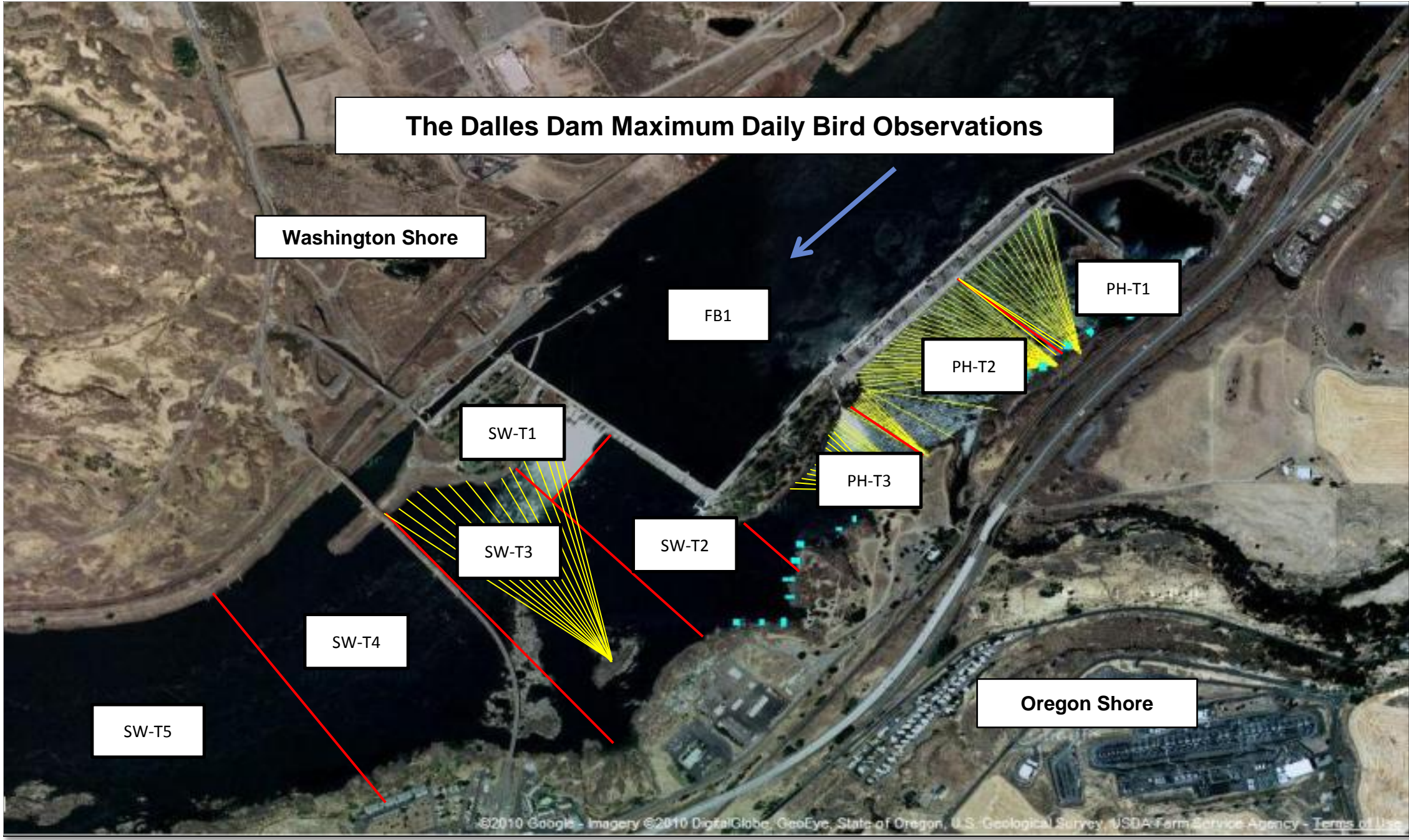
SW-T2

SW-T3

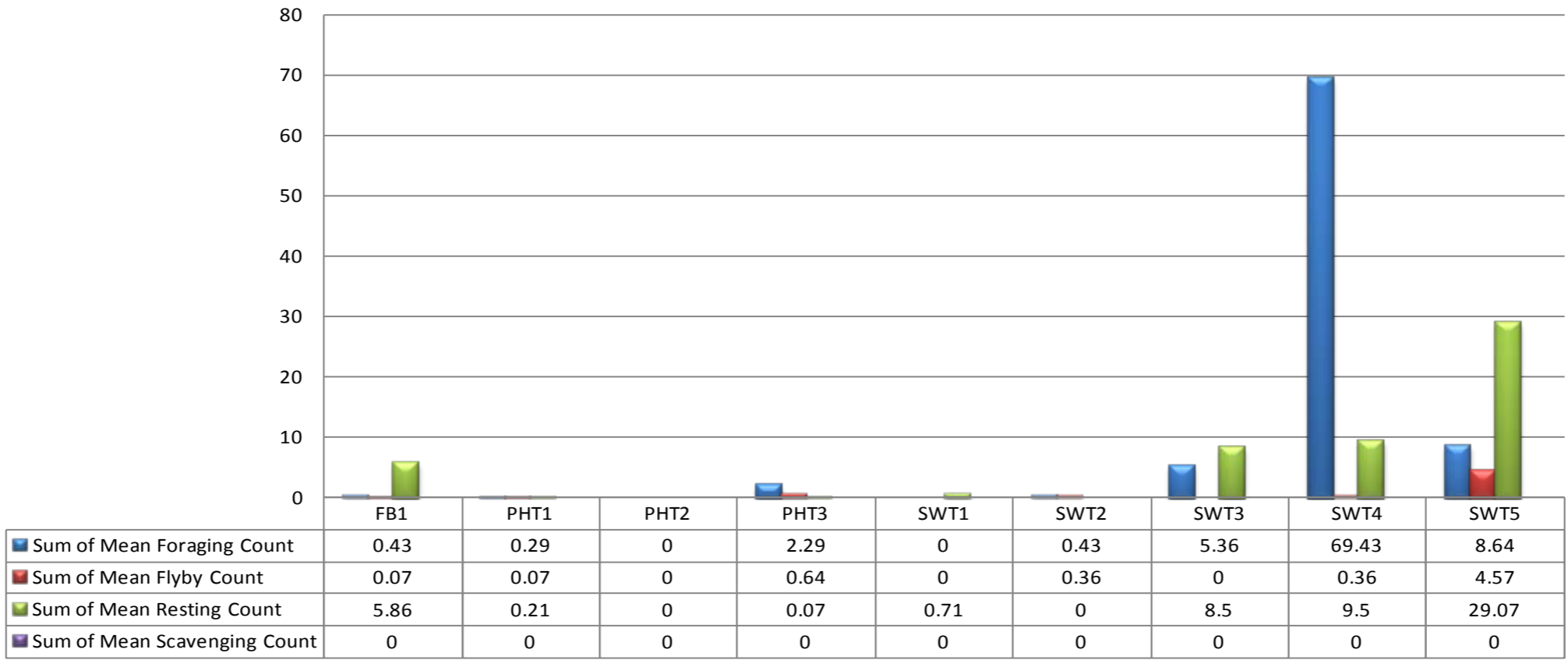
SW-T4

Oregon Shore

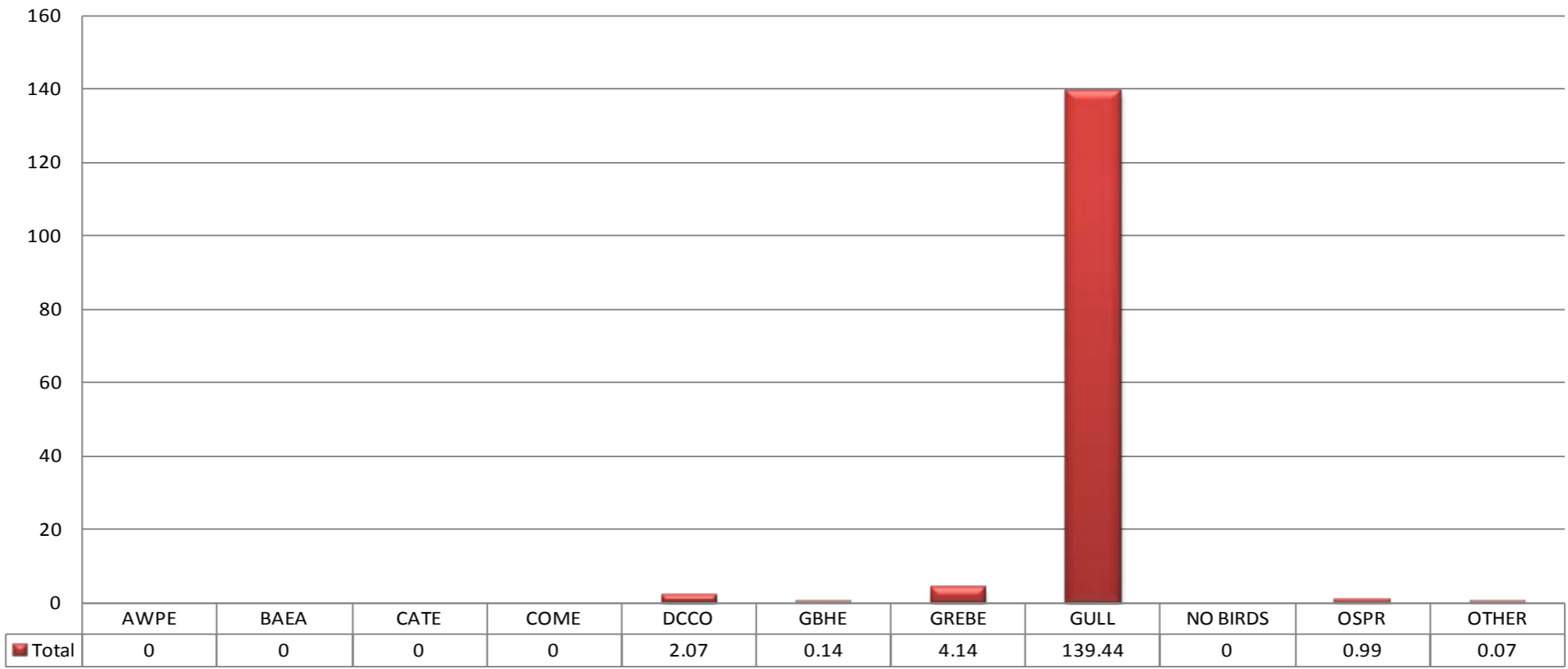
SW-T5



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:	
	57.2	SUN	3.0
	57.2	MON	4.0
	57.2	TUES	4.5
	57.3	WED	4.5
	57.3	THUR	4.5
	57.1	FRI	4.5
	57.0	SAT	4.5
AVG:	57.2	AVG:	4.2

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

North Fish Ladder			East Fish Ladder												
North Entrance		East Entrance						West Entrance				South Entrance			% Spill
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth	
5/12/13	1.3	10.0	1.6	10.5	14.0	14.0	16.7	1.5	12.1	12.1	4.0	1.6	8.5	8.6	32.0
5/12/13															
5/12/13			1.5	10.5	14.0	14.0	16.7	1.6	12.0	12.0	3.9	1.5	8.5	8.6	
5/13/13	1.4	9.9	1.5	9.5	13.9	14.0	15.1	1.5	11.2	11.0	2.5	1.5	8.6	8.6	34.3
5/13/13	1.4	9.9	1.4	9.5	13.9	14.0	14.6	1.4	11.1	11.1	2.1	1.4	8.5	8.5	34.9
5/13/13			1.6	9.5	13.9	14.0	15.3	1.5	11.2	11.2	2.7	1.5	8.5	8.4	
5/14/13	1.4	73.8	1.6	9.5	14.0	14.1	14.3	1.5	11.2	11.2	2.3	1.5	8.4	8.4	41.1
5/14/13	1.4	10.2	1.6	9.0	14.0	13.9	15.3	1.5	11.2	11.2	2.7	1.4	8.5	8.5	40.5
5/14/13			1.5	10.6	14.2	14.2	14.8	1.4	11.3	11.1	2.2	1.3	8.6	8.6	
5/15/13	1.4	9.8	1.6	9.9	14.0	14.0	15.2	1.4	11.0	11.0	2.7	1.4	8.6	8.5	40.4
5/15/13	1.4	9.8	1.5	10.1	14.0	14.0	15.6	1.6	11.0	11.0	2.9	1.4	8.7	8.7	34.0
5/15/13			1.5	10.0	13.9	13.9	15.3	1.5	10.9	10.9	2.6	1.5	8.4	8.4	
5/16/13	1.4	9.9	1.6	10.0	14.0	13.9	15.6	1.6	10.9	10.9	2.9	1.6	8.5	8.5	33.5
5/16/13	1.3	9.8	1.7	10.1	14.1	14.0	15.9	1.6	11.0	11.0	3.0	1.5	8.4	8.4	33.4
5/16/13			1.4	10.0	14.1	14.1	15.4	1.5	11.0	11.0	2.7	1.6	8.4	8.5	
5/17/13	1.4	9.9	1.5	9.1	14.1	14.1	13.9	1.5	10.1	10.1	1.3	1.5	8.2	8.3	38.8
5/17/13	1.4	9.8	1.6	9.0	14.0	14.0	13.8	1.6	10.1	10.1	1.3	1.4	8.4	8.5	39.1
5/17/13			1.5	9.0	14.0	14.0	13.6	1.5	10.1	10.1	1.1	1.4	8.3	8.4	
5/18/13	1.4	9.9	1.5	9.1	14.0	14.1	15.2	1.5	11.0	11.0	2.6	1.5	8.5	8.4	35.0
5/18/13	1.4	9.9	1.6	9.0	13.5	13.4	15.5	1.7	10.6	10.6	2.8	1.6	8.3	8.4	34.2
5/18/13			1.6	8.9	13.8	13.9	15	1.7	9.9	9.9	2.4	1.6	8.4	8.3	
AVG:	1.4	14.8	1.5	9.6	14.0	14.0	15.1	1.5	10.9	10.9	2.5	1.5	8.5	8.5	36.2

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



Wood panel sunshade installed at north count station to replace aluminum in attempts to reduce PIT antenna interference.