

# FISHWAY STATUS REPORT

**Date:** 8/4/2013  
**Inspection Period:** 7/28 to 08/3/2013

# 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:	21	Temperature:	70.5	F
	Out of Criteria	Limit	Comments		Secchi:	4.9	Ft.
<b>NORTH FISHWAY</b>							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'	Raked east count station picket leads 7/31.				
Weir crest depth	0	1.0' ± 0.1'					
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	0	Per forebay	Auto adjusts 1' increments.				
Weir 158-159 differential	0	1.0' ± 0.1'					
Count station differential	0	≤ 0.3'	Raked east count station picket leads daily.				
Weir crest depth	0	1.0' ± 0.1'					
Junction pool weir JP6	0	depth (≥ 7')	Manually adjusted as needed.				
East entrance differential	1	1.0' - 2.0'	Average	1.5	OOC during the night of 8/1		
Entrance weir E1	0	No criteria	Average	0.0	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	12.2			
Entrance weir E3	0	depth (≥ 8')	Average	12.2			
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	2.8			
North channel velocity	0	1.5 - 4 fps	Average	2.6			
South channel velocity	0	1.5 - 4 fps	Average	3.8			
West entrance differential	1	1.0' - 2.0'	Average	1.4	OOC during the night of 8/1		
Entrance weir W1	0	depth (≥ 8')	Average	8.5			
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 <b>AVGS</b> tab.		
Entrance weir S1	0	depth (≥ 8')	Average	9.0			
Entrance weir S2	0	depth (≥ 8')	Average	9.0			
<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:	0.2' to 0.5'.			
Spill volume	0	40%, 24hr					
Spill Pattern	0	per FPP					
Turbine Unit Priority	1	per FPP	Control room operator was notified and made the appropriate change.				
Turbine 1% Efficiency	0	per FPP					

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

Bird observation data collected twice daily. Bird numbers are low to moderate, the majority of predatory 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 returned to service 0725. T8 forced out of service again at 1510 and then returned to service 7/29 am in accordance with HDC's test plan. Multilevel testing is ongoing and will probably continue for a couple more weeks minimum.

MU1 OOS 0600 6/24/2013 to 1700 8/1/2013 for digital governor installation.

MU5 OOS 0600 7/15/2013 to 1700 8/22/2013 for 5 Yr. O/haul, As-builts, Gen Heat, Heat Exch, and Cavitation.

MU9 OOS 0600 7/15/2013 to 1700 8/22/2013 for Digital Governor install/Annual.

MU4 OOS 0600 7/31/2013 - 1700 8/1/2013 for Governor/Kaplan repairs.

Gatewell drawdown completed on 8/2/13. All values were within the 1.5' criteria and ranged from 0.2' to 0.5'.

Calibration completed on 7/31/13. All values within criteria with the exception of W2 which was out of criteria by 0.1'.

**Maintenance:**

Remote Operated Vehicle (ROV) inspection of turbine trashracks with District ROV and sonar scanner 8/5 and 8/6 blocks of 3 and 4 units at a time.

ROV inspection of east and north fishway diffuser grating 8/6 per Fish Passage Plan (FPP) mid season requirement.

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 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. Value Engineering (VE) study completed.

**PUD** - Second (freedom) turbine proposal out to project for review. Pursuing modification of the original FERC license. Comments due by 8/23.

Moving osprey platform contingent on approval of second turbine.

**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:**

Tribal lamprey trappers collecting lamprey from between picketed leads at the east count station. Yakama Nation collected 165 to date. Collection allocation is 281 per Tribe.

Nez Perce Fisheries staff are planning on participating in trap collections for lamprey the last week of July/first week of August.

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; effort hours - 19.0, total NPM - 50, NPM  $\geq$  230 mm - 50, game fish - 3, non-game fish - 1.

Pacific States Marine Fisheries Commission fish sampling at Northern Wasco County PUD juvenile bypass; a complete sample was collected this week, No salmon in the sample this week but lots of incidentals. This is the last report for this year. For additional information, see Report # 13-17.

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

USDA bird hazing ended for the season 7/31.

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

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 [Right]	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	#						
7/28/2013	61	380	39.1	244	76	88	24	28	60	1152	40	762	61	728	40	475	34	64	67	127		0		0		0		0	45	58	55	70	40.1	131.7
7/29/2013	65	458	35.5	252	80	102	20	25	65	1453	35	784	67	950	33	466	52	78	48	73		0		0		0		0	64	102	36	58	40	147.5
7/30/2013	65	384	34.9	206	92	119	8.5	11	69	1696	31	769	67	1028	33	500	75	102	26	35		0		0		0		0	49	50	52	53	40	152.2
7/31/2013	63	314	37.5	188	67	82	33	41	70	1557	30	662	69	943	31	420	62	62	38	38		0		0		0		0	50	73	50	74	40	164.5
8/1/2013	51	247	49.2	239	83	86	17	18	67	1241	33	614	68	739	32	350	56	44	44	34		0		0		0		0	35	58	65	108	40.1	163.4
8/2/2013	61	192	39.4	125	83	54	17	11	69	1091	31	499	67	598	33	296	47	31	53	35		0		0		0		0	53	101	47	90	39.8	113.2
08/03/13	70	281	30	121	80	80	20	22	70	1214	30	588	60	620	40	359	50	24	50	24		0		0		0		0	30	40	70	80		
<b>Weekly Total</b>		2256		1375		611		156		9404		4678		5606		2866		405		366		0		0		0		0		482		533	34.3	145.4
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						
	62%	38%	80%	20%	67%	33%	66%	34%	53%	47%	0%	0%	0%	0%	47%	53%																		

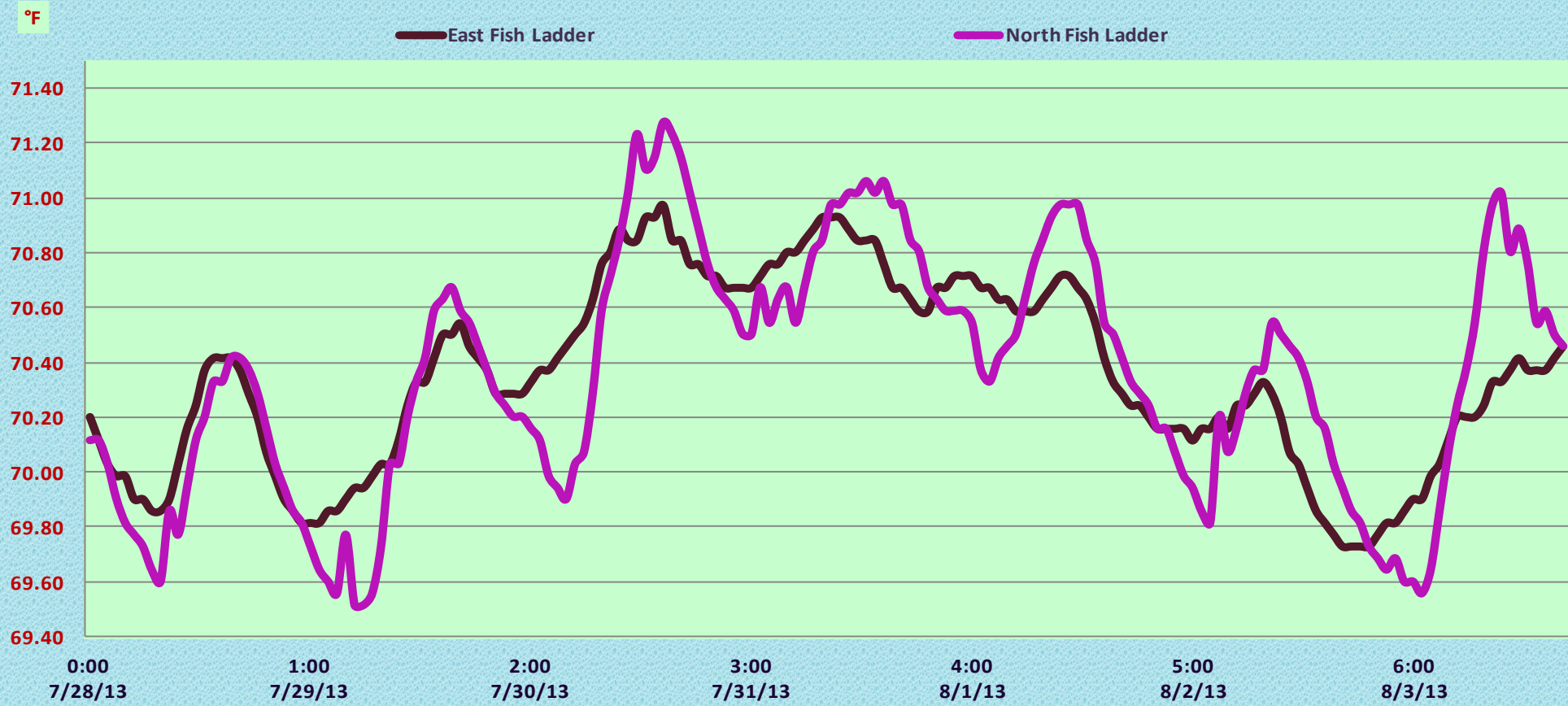
NOTES:

y, if either the Right Ladder or Left Ladder species count is: negative or null for the day.

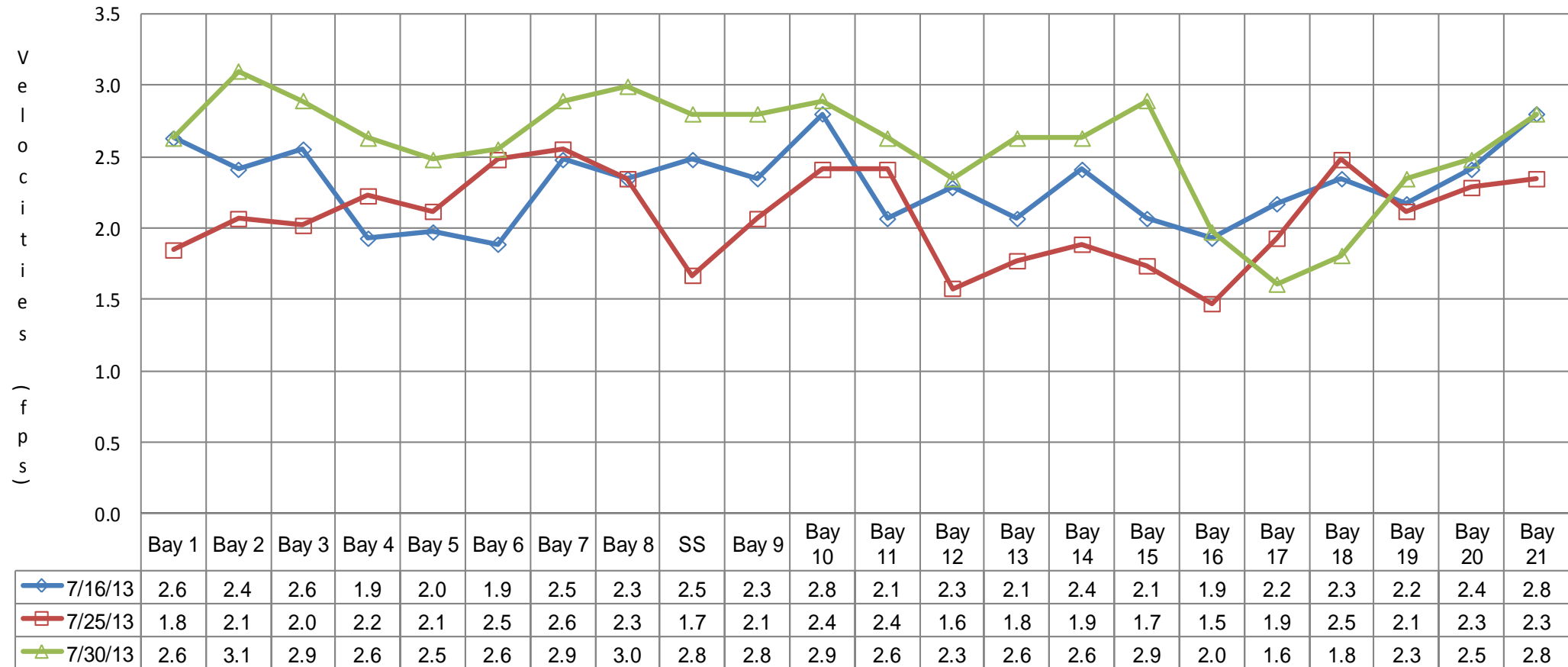
the side of the river when facing downstream.

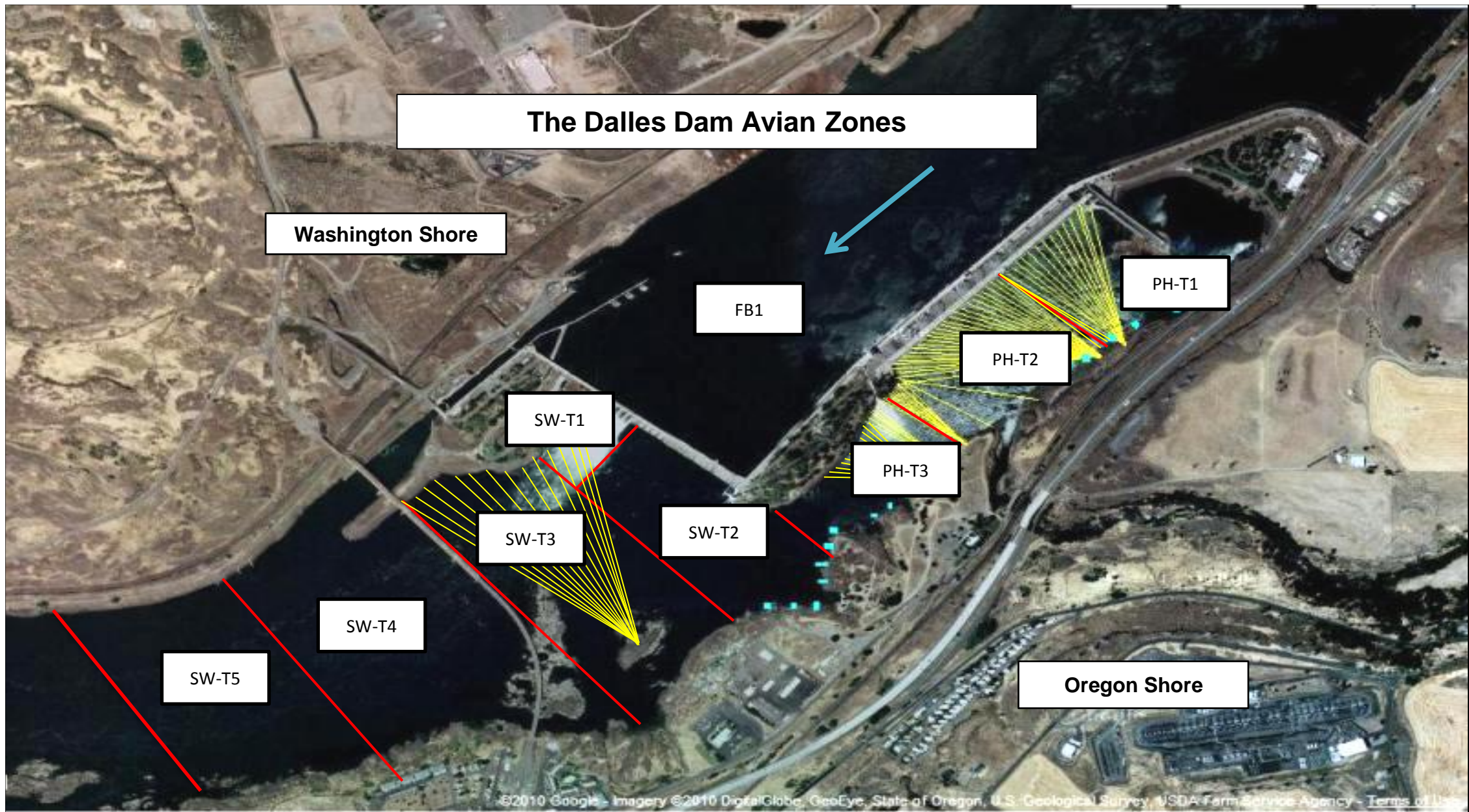
asy of U.S. Army Corps of Engineers

## The Dalles Dam Adult Fish Ladder River/Water Temperatures

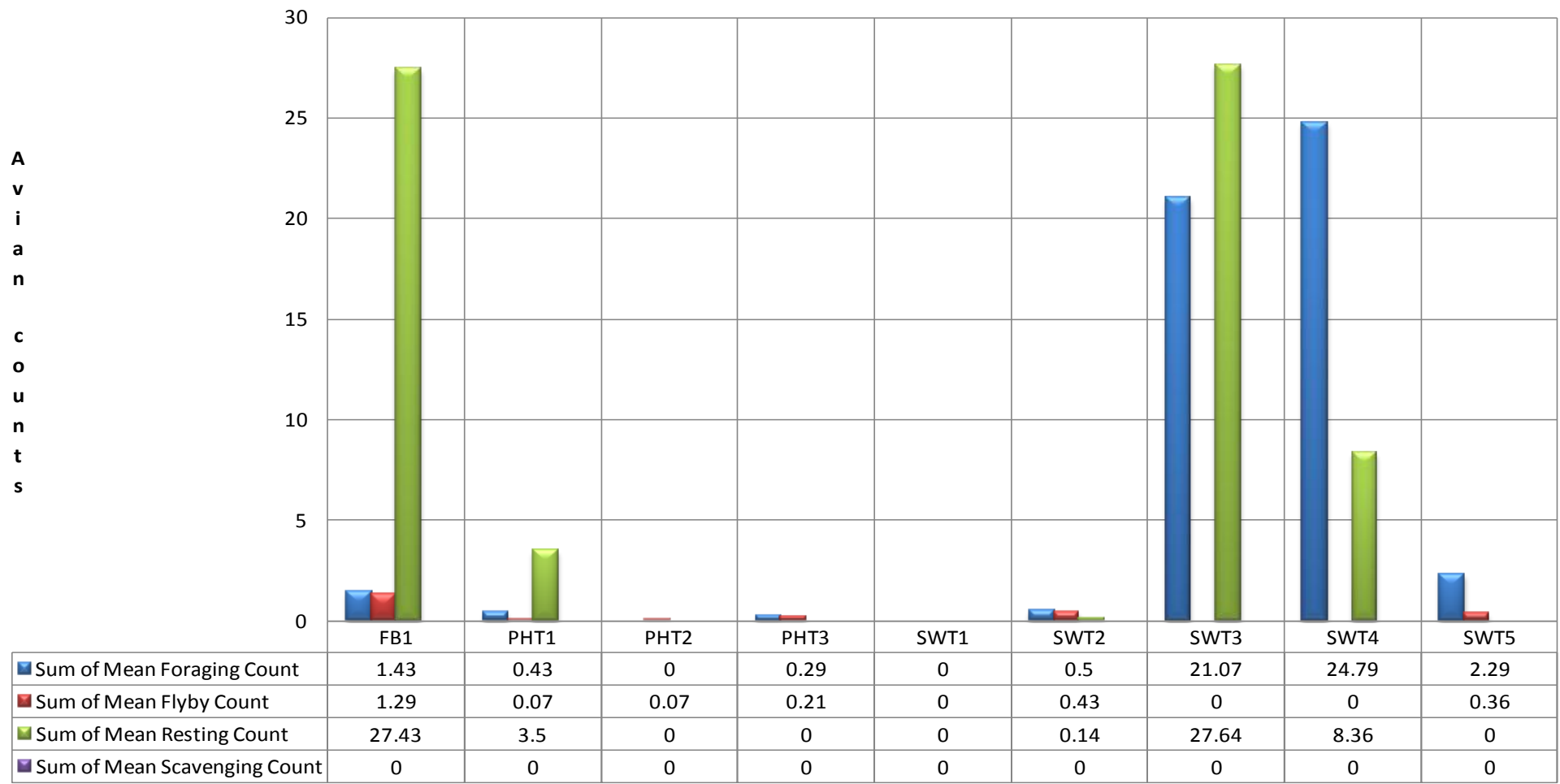


### The Dalles Dam Collection Channel Velocities (fps)



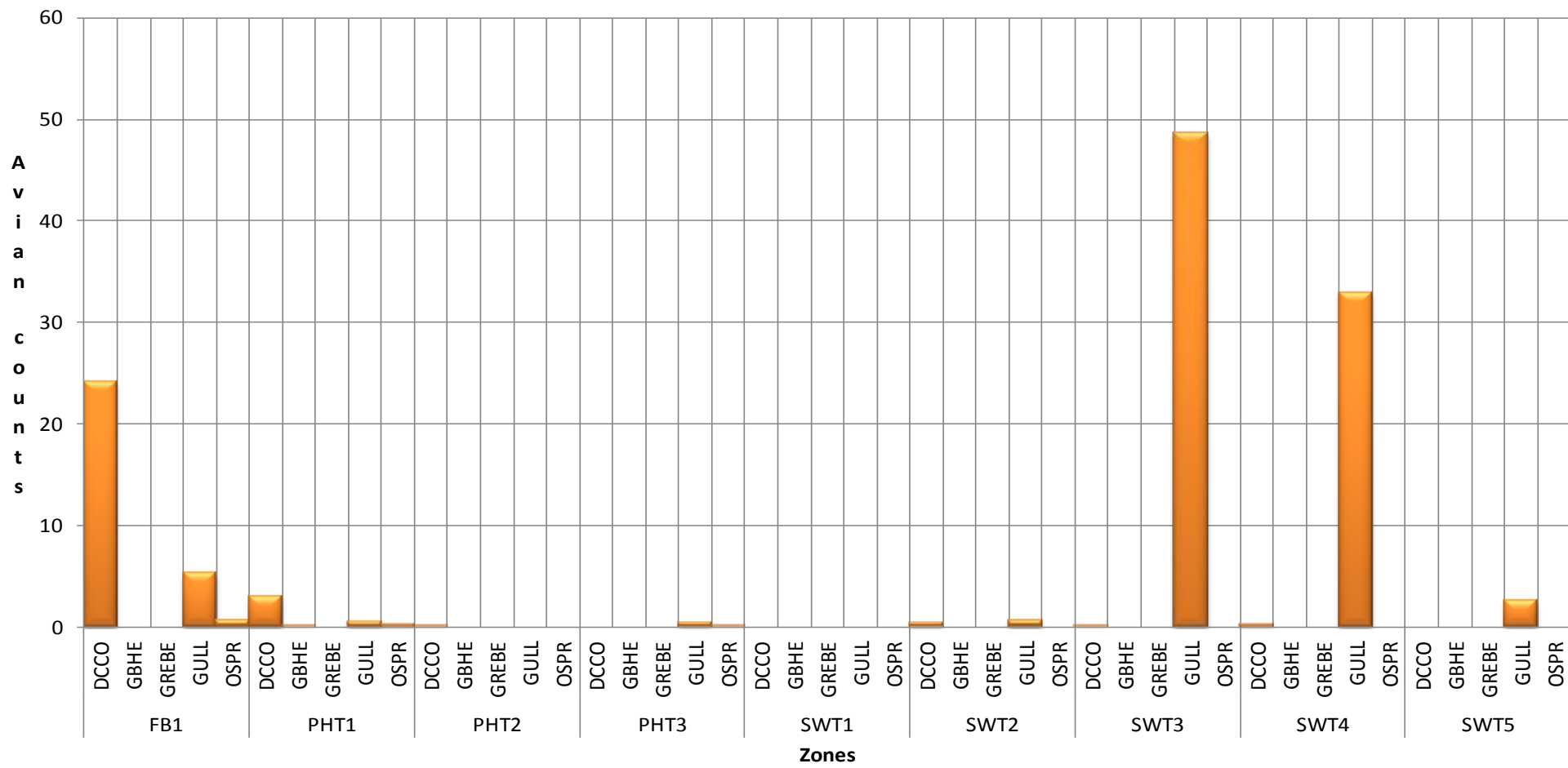


### Mean Avian Counts by Behavior



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

### Mean Avian Counts by Species



Temp:		Secchi:
70.2	SUN	5.0
70.2	MON	5.0
70.7	TUES	5.0
70.9	WED	5.0
70.8	THUR	4.5
70.3	FRI	5.0
70.2	SAT	5.0
AVG: 70.5	AVG:	4.9

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

Out of Criteria

North Fish Ladder			East Fish Ladder											KCFS	
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
28-Jul-13	1.2	9.9	1.5	0.1	13.1	12.5	10.6	1.6	8.5	8.4		1.5	9.1	9.1	40.4
28-Jul-13	1.2	9.9	1.5	0.0	12.6	12.6	10.1	1.5	8.6	8.5		1.5	9.0	9.1	39.6
28-Jul-13			1.3	0.0	13.0	12.6		1.4	8.4	8.5		1.6	8.9	9.0	
29-Jul-13	1.2	9.9	1.4	0.0	12.0	12.0	9.0	1.3	8.6	8.5		1.6	8.9	8.9	39.7
29-Jul-13	1.3	9.9	1.5	0.0	12.0	12.1	9.9	1.5	8.5	8.6		1.5	9.1	9.0	40.3
29-Jul-13			1.5	0.0	12.0	12.0		1.3	8.5	8.4		1.5	8.9	8.9	
30-Jul-13	1.3	9.8	1.6	0.0	12.0	11.9	9.6	1.5	8.5	8.4		1.4	9.2	9.4	40.6
30-Jul-13	1.4	9.7	1.6	0.1	12.6	12.7	10.7	1.4	9.1	9.1		1.6	9.0	9.0	40.2
30-Jul-13			1.6	0.0	12.0	12.0		1.5	8.4	8.5		1.5	9.0	9.0	
31-Jul-13	1.3	9.8	1.6	0.0	12.0	12.1	9.3	1.5	8.4	8.4		1.5	9.1	9.1	40.0
31-Jul-13	1.4	9.8	1.7	0.0	11.9	12.0	10.6	1.6	8.5	8.5		1.4	9.2	9.2	40.0
31-Jul-13			1.6	0.1	12.0	12.0		1.5	8.3	8.3		1.5	8.9	8.9	
1-Aug-13	1.3	10.0	1.5	0.1	12.3	12.5	10.6	1.5	8.5	8.4		1.6	9.0	8.9	40.2
1-Aug-13	1.3	9.9	1.6	0.1	12.7	12.7	11.8	1.7	8.5	8.5		1.5	9.1	9.1	41.8
1-Aug-13			1.5	0.2	13.4	13.4		1.6	8.6	8.7		1.5	9.1	9.2	
2-Aug-13	1.2	9.9	1.7	0.1	12.1	12.1	11.1	1.6	8.3	8.3		1.5	9.0	9.1	40.4
2-Aug-13	1.3	9.9	1.6	0.1	11.6	11.6	9.2	1.3	8.4	8.2		1.4	9.0	9.1	38.8
2-Aug-13			1.2	0.0	12.4	12.4		1.2	8.6	8.5		1.3	9.0	9.0	
3-Aug-13	1.4	10.2	1.5	0.0	11.7	11.5	9.1	1.3	8.4	8.4		1.3	9.1	9.1	40.0
3-Aug-13	1.3	9.9	1.5	0.1	11.7	11.6	10.2	1.4	8.4	8.4		1.6	9.0	9.0	40.5
3-Aug-13			1.2	0.0	11.5	11.5		1.0	8.3	8.3		1.3	8.9	8.9	
<b>AVG:</b>	1.3	9.9	1.5	0.0	12.2	12.2	10.1	1.4	8.5	8.5	closed	1.5	9.0	9.0	40.2

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