

# FISHWAY STATUS REPORT

Date: 9/9/12  
 Inspection Period: 9/2 -9/8/12

## 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 Out of Criteria	Criteria Limit	Total Number of Inspections:	21	Temperature:	67.8 F
			Comments	Secchi:	4.9	Ft.
<b>NORTH FISHWAY</b>						
Exit differential	0	≤ 0.5'				
Count station differential	0	≤ 0.3'	Window cleaned 9/8/12.			
Weir crest depth	0	1.0' ± 0.1'				
Entrance differential	0	1.0' - 2.0'	Average 1.2	Daily differentials & weir depths, see <b>AVGS</b> tab.		
Entrance weir N1	0	depth (≥ 8')	Average 9.5			
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'	Picket leads raked every other day. Window cleaned on 9/3/12.			
Weir crest depth	0	1.0' ± 0.1'				
Junction pool weir JP6	1	depth (≥ 7')	Manually adjusted as needed.	Out of criteria at 6.6'.		
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 9.6	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average 10.2			
Entrance weir E3	0	depth (≥ 8')	Average 10.2			
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 2.5			
North channel velocity	0	1.5 - 4 fps	Average 2.5			
South channel velocity	0	1.5 - 4 fps	Average 3.4			
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 8.6			
Entrance weir W3	0	No criteria	Average Closed			
South entrance differential	2	1.0' - 2.0'	Average 1.3	Out of criteria at (2) 0.9'. Flow restrictions see below.		
Entrance weir S1	0	depth (≥ 8')	Average 8.3	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average 8.3	Manually adjusted.		
<b>JUVENILE PASSAGE</b>						
Sluiceway operation	0	units 1,8,18				
Turbine trashrack drawdown	0	<1.5', wkly	Range: 0.1' - 0.5'			
Spill volume	0	40%, 24hr	Average 0.0	On seal.		
Spill Pattern	0	per FPP		On seal.		
Turbine Unit Priority	0	per FPP				
Turbine 1% Efficiency	0	per FPP				

**OTHER ISSUES:****THE DALLES****Birds:**

Fisheries personnel are collecting bird count data twice daily.

There are very few numbers of gulls returning to the spillway tailrace downstream of bridge. See bird tab below for more details.

**Operations:**

Gateway drawdown completed 9/2/12. Differentials ranged between 0.2' - 0.6'. All within criteria.

Calibrations completed 9/5/12. East entrance channel and tailwater, south entrance tailwater readings out of calibration (0.1' to 0.5'). Maintenance notified and adjustments made.

Flow restrictions at The Dalles Dam for cross channel swim at Hood River 0600 - 1200 hrs. 9/3/12; flows not to exceed 150 KCFS.

**Maintenance:**

Draft fishway dewatering schedule out for review. Dewatering maintenance occurs between 12/1/12 through 2/28/13.

Winter maintenance to include east fishladder diffuser grating install completion and the north fishladder brush removal.

A trouble report was generated for north count station interior heat pump not functioning properly. Maintenance corrected.

**Current Outages:**

MU11 out of service 7/30/12 0746 hrs. to 9/13/12 for five year over haul, as built, generator heaters, heat exchangers, and cavitation.

MU13 out of service 8/13/12 0705 hrs. to 9/20/12 1700 hrs for digital governor install and annual maintenance.

MU22 out of service 9/04/12 0609 hrs. to 10/11/12 1700 hrs. for digital governor install and annual maintenance.

**Studies:**

Inland Avian Predation Work Group (IAPWG) is scheduled to meet at Westrick 9/27/12 from 0900 to 1700 hrs.

Exploring possible reduced nighttime flow tests for improved adult lamprey. Regional coordination underway.

Project fisheries are supporting the east fishway backup study and adult passage integrated transponder (PIT) antennae study as needed.

**Research/Contractors:**

The Columbia River Northern Pikeminnow Management Program Dam Angling: Effort hours - 9.0, total NPM - 17, game fish - 3. The total NPM year to date - 3,021. This is twice the total for John Day Dam (1,577).

The final season for Pacific Northwest National Laboratory (PNNL) Battelle juvenile acoustic telemetry completed. The Compliance Monitoring of Juvenile Yearling Chinook Salmon and Steelhead Survival and Passage at The Dalles Dam, Spring 2011 report completed. Compliance results passed. Refer to report for details ([http://www.pnnl.gov/main/publications/external/technical\\_reports/PNNL-21124Rev1.pdf](http://www.pnnl.gov/main/publications/external/technical_reports/PNNL-21124Rev1.pdf)). Summer testing results for 2012 pending. Pacific Mobile will remove three PNNL trailers from the project 9/26/12. TDS will hoist the trailers onto the road deck a few days prior to Pacific Mobile's arrival.

Planning is underway for dismantling and equipment removal. A large dive contract is expected to occur this winter in order to remove all spillway and powerhouse equipment. This will include derelict USGS equipment removal from previous studies.

Oregon Fish and Wildlife have concluded Columbia River Predator Control Program bass angling activities at The Dalles. Results pending.

United States Fish and Wildlife Service (USFWS) continues adult lamprey camera monitoring at the counting stations between picketed leads.

The dual frequency identification sonar (DIDSON) camera has been placed in the upper north ladder for testing.

Washington Department of Fish and Wildlife fish counters continuing 16 hr./day through October.

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

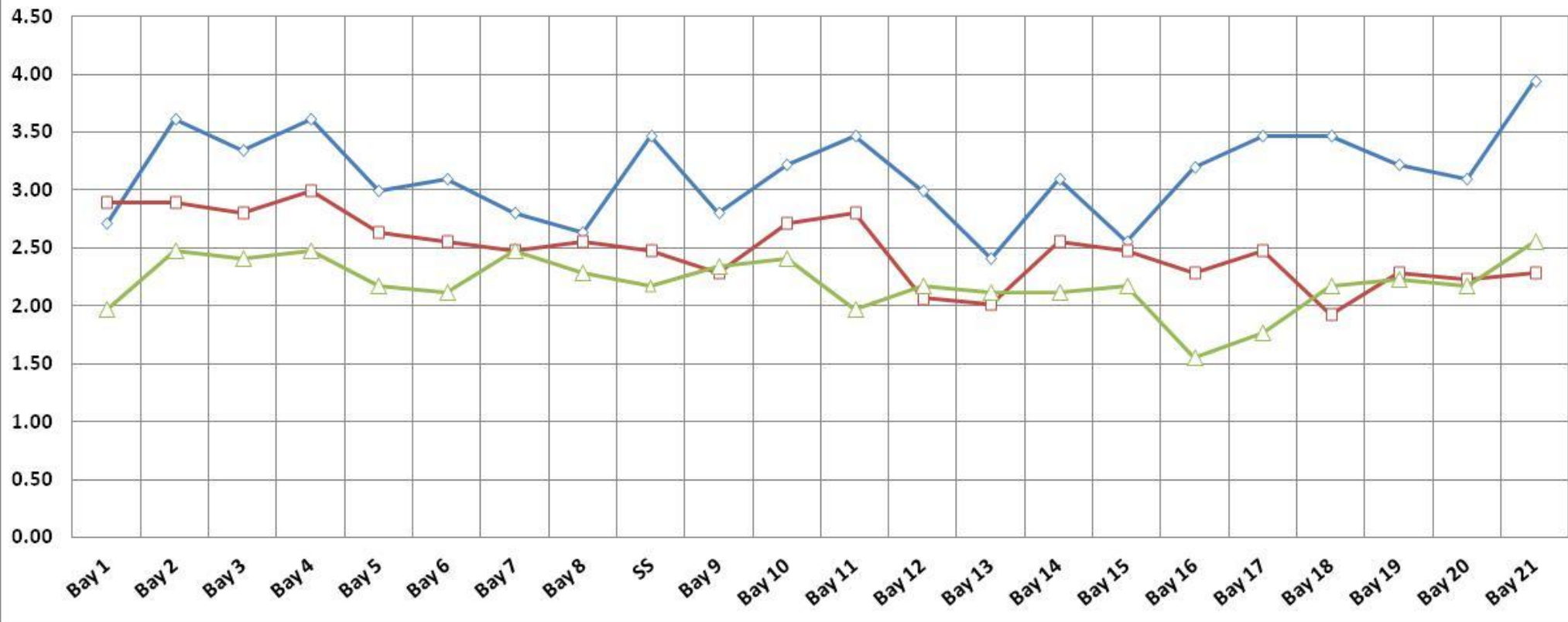
## The Dalles Dam Fish Counts

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	
2-Sep	7939	173	1600	76	2491	174	644	40	0	0	926	80	119	5	14	17			O N S E A L
3-Sep	6294	104	2147	74	2771	227	787	47	0	0	1276	80	150	16	19	5			
4-Sep	6344	343	2174	158	2627	278	755	72	0	0	1159	200	204	8	12	6			
5-Sep	5189	67	2094	59	2200	71	389	17	2	0	1355	89	116	11	16	5			
6-Sep	5723	150	2094	134	2372	139	601	44	0	0	1176	173	140	11	16	11			
7-Sep	5134	149	1954	124	2239	167	422	54	0	0	1333	130	85	7	10	5			
8-Sep	6059	522	2195	228	2147	253	563	59	0	0	794	199	36	25	25	11			
<b>Wkly Tot</b>	42682	1508	14258	853	16847	1309	4161	333	2	0	8019	951	850	83	112	60	0	0	
<b>% Split</b>	96.6%	3.4%	94.4%	5.6%	92.8%	7.2%	92.6%	7.4%	100.0%	0.0%	89.4%	10.6%	91.1%	8.9%	65.1%	34.9%	#DIV/0!	#DIV/0!	

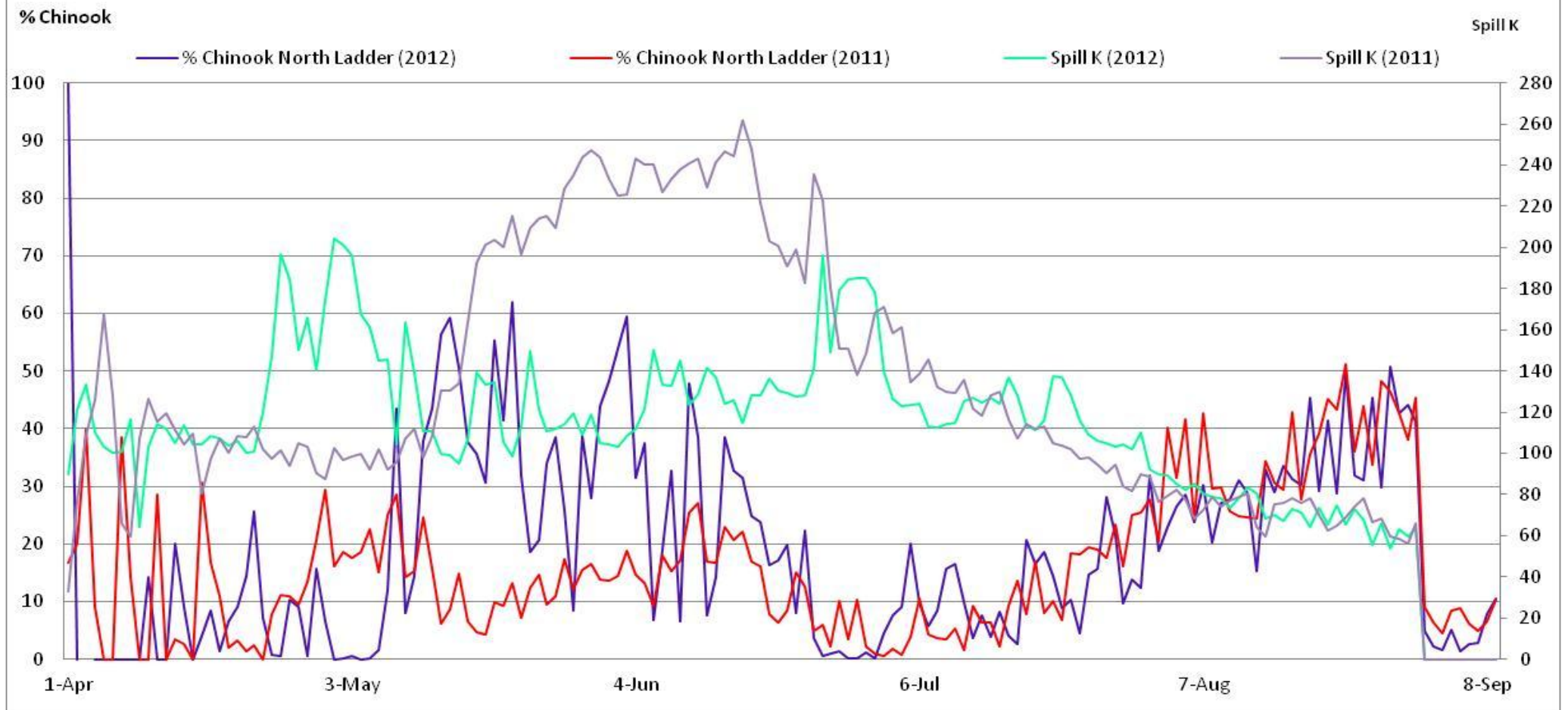
Note; reduced north passage due to spillway closure. Majority of attraction flow pulls fish to the east fishway.

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

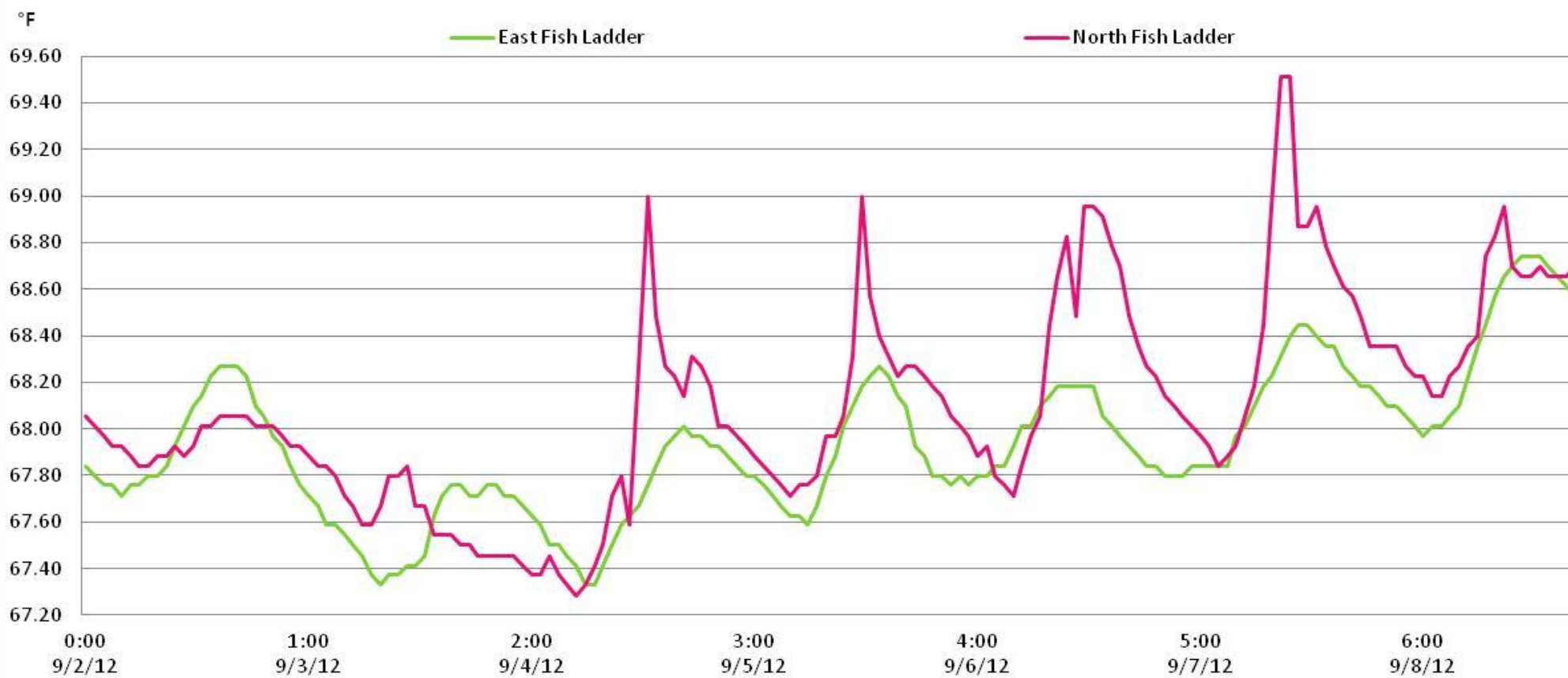
8/23/2012 8/29/2012 9/4/2012



%Chinook North adult fish ladder usage VS the effect of spill at The Dalles Dam



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



# The Dalles Dam Daily Bird Observations

Washington Shore

**SW-T1:**  
0-1 Osprey

**FB1:**

0-1 Gull rest, 0-1 forage, 0-2 flyby.  
4-91 Cormorant rest, 0-2 flyby, 0-1 forage.  
0-2 Osprey forage, 0-1 rest.  
0-2 Grebe rest.

**PH-T1:**

8-28 Cormorant rest, 0-3 forage.  
0-1 Gull rest. 0-1 forage.  
0-2 Great Blue Heron forage, 0-1 rest.  
0-1 Osprey rest.

**SW-T3:**

0-11 Gull rest, 0-2 flyby.  
0-18 Cormorant rest, 0-1 forage.  
0-1 Great Blue Heron forage.

**PH-T2:**

0-1 Osprey flyby.

**SW-T4:**

0-1 Cormorant forage.  
0-5 Gull rest, 0-1 forage

**PH-T3:**

0-1 Gull forage.  
0-2 Cormorant forage.  
0-1 Osprey rest.

**SW-T2:**

0-2 Gull forage.  
0-2 Cormorant forage, 0-2 rest.  
0-2 Osprey flyby, 0-1 rest.

Oregon Shore

Temp:			Secchi:	
	67.8	SUN		5.0
	67.4	MON		4.5
	67.5	TUES		5.0
	67.8	WED		4.5
	67.9	THUR		5.0
	68.0	FRI		5.0
	68.3	SAT		5.0
AVG:	67.8	AVG:		4.9

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

North Fish Ladder			East Fish Ladder												% Spill
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	
9/2/12	1.1	9.8	1.1	10.4	10.4	10.5	7	1.3	9.5	9.4	Closed	1.1	8.0	8.0	
9/2/12	1.0	9.9	1.3	10.6	10.5	10.6	8.9	1.3	9.5	9.4		1.1	8.1	8.2	
9/2/12			1.3	10.6	10.6	10.5		1.4	9.5	9.4		1.0	8.2	8.1	
9/3/12	1.1	9.9	1.4	10.0	9.9	10.0	8	1.3	8.5	8.5		0.9	8.2	8.2	
9/3/12	1.2	9.9	1.4	10.0	9.9	9.9	6.6	1.3	8.9	8.9		1.0	8.0	8.1	
9/3/12			1.2	10.5	10.5	10.4		1.1	9.4	9.3		1.0	8.1	8.0	
9/4/12	1.1	10.0	1.6	9.9	9.9	10.0	8.1	1.5	8.2	8.1		1.1	8.1	8.0	
9/4/12	1.1	9.6	1.6	9.9	9.9	10.0	8.5	1.4	8.1	8.2		1.0	8.1	8.2	
9/4/12			1.6	10.1	10.1	10.0		1.4	8.2	8.0		0.9	8.2	8.1	
9/5/12	1.2	9.4	1.5	10.6	10.6	10.6	7.3	1.6	8.2	8.2		1.1	8.0	8.0	
9/5/12	1.5	9.4	1.5	9.5	10.5	10.5	8.3	1.7	8.4	8.4		1.3	8.1	8.1	
9/5/12			1.8	10.1	10.0	10.0		1.5	8.0	8.0		1.0	8.1	8.0	
9/6/12	1.3	9.5	1.5	9.4	10.5	10.5	7.9	1.6	9.0	9.0		1.1	8.2	8.1	
9/6/12	1.5	9.3	1.6	9.0	10.1	10.0	7.8	1.6	8.9	8.9		1.8	8.0	8.0	
9/6/12			1.4	9.6	10.6	10.5		1.6	8.5	8.6		1.1	8.1	8.2	
9/7/12	1.1	9.2	1.6	8.1	10.1	10.1	7.5	1.3	8.5	8.5		1.4	9.0	9.0	
9/7/12	1.2	9.1	1.4	8.0	10.6	10.6	7.5	1.3	8.2	8.2		1.3	9.0	9.0	
9/7/12			1.3	9.7	10.2	10.2		1.4	8.6	8.6		1.7	8.4	8.4	
9/8/12	1.3	9.1	1.5	8.1	10.1	10.0	7.1	1.3	8.1	8.1		1.4	8.5	8.5	
9/8/12	1.5	9.1	1.6	9.0	9.9	10.1	8.5	1.4	8.3	8.1		1.5	8.5	8.4	
9/8/12			1.5	8.3	10.1	10.0		1.3	8.2	8.2	1.3	9.0	9.0		
<b>AVG:</b>	1.2	9.5	1.5	9.6	10.2	10.2	7.8	1.4	8.6	8.6	Closed	1.2	8.3	8.3	

ON SEAL

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