

FISHWAY STATUS REPORT

Date: 07/30/12
 Inspection Period: 07/22 - 07/28/2012

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:	66.5	F
	Out of Criteria	Limit	Comments		Secchi:	3.8	Ft.
NORTH FISHWAY							
Exit differential	0	≤ 0.5'					
Count station differential	0	≤ 0.3'					
Weir crest depth	0	1.0' ± 0.1'					
Entrance differential	0	1.0' - 2.0'	Average	1.4	Daily differentials & weir depths, see AVGS tab.		
Entrance weir N1	0	depth (≥ 8')	Average	10.1			
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'	Picket leads raked on 7/23, 7/25, 7/27.				
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 AVGS tab.		
Entrance weir E1	0	No criteria	Average	10.0	Manually adjusted.		
Entrance weir E2	0	depth (≥ 8')	Average	10.4			
Entrance weir E3	0	depth (≥ 8')	Average	10.4			
Collection channel velocity	0	1.5 - 4 fps	Average	2.6	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	2.2			
South channel velocity	0	1.5 - 4 fps	Average	3.0			
West entrance differential	0	1.0' - 2.0'	Average	1.3			
Entrance weir W1	0	depth (≥ 8')	Average	8.1			
Entrance weir W2	0	depth (≥ 8')	Average	8.1			
Entrance weir W3	0	No criteria	Average	No criteria			
South entrance differential	0	1.0' - 2.0'	Average	1.4	Daily differentials & weir depths, see AVGS tab.		
Entrance weir S1	0	depth (≥ 8')	Average	8.8	Manually adjusted.		
Entrance weir S2	0	depth (≥ 8')	Average	8.8			
JUVENILE PASSAGE							
Sluiceway operation	0	units 3,8,18					
Turbine trashrack drawdown	0	<1.5', wkly	Range:	0.2' - 1.0'			
Spill volume	4	40%, 24hr	Average	39.4	Spill set by Reservoir Control Center		
Spill Pattern	0	per FPP					
Turbine Unit Priority	14	per FPP	MU 1&2 forced out of service due to FJX0 breaker failure.				
Turbine 1% Efficiency	0	per FPP					

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

Fisheries personnel are collecting bird count data twice daily. USDA gull hazing contract ends Monday July 30. The gull numbers are moderate, downstream of bridge, with a few entering the line grid upstream of bridge.

Operations:

Calibration check completed July 25; Entrance weirs E2 and S1 off by 0.1'. All other entrance weirs, entrance channel/tail water, and exit staff gauges in criteria.

Gatewell drawdown completed July 23. All meet criteria for intake trashrack differential.

North and East Fish Ladders, Ice/Trash Sluiceway and Spillway in operation per Fish Passage Plan.

Automation system in Fisheries office indicated that the east entrance from 0412hrs. - 0648hrs July 28. OOC by 0.1'.

Maintenance:

Maintenance rehabbing entrance weir to serve as spare to S1, S2 and N1.

Investigating specs for east exit weirs wheels. Plan to construct several to have on hand as spares.

The east count station crowder light burned out. Trouble report written.

Midseason Remote Operated Vehicle (ROV) fishway grating inspection is planned for Aug. 1 and will include all the diffuser gratings for east and north Fishways. Jeff Randall will be the pilot for the ROV.

Current Outages:

MU1 and MU2 OOS due to failed FZJ-0 Disconnect, RTS unknown.

MU-7 OOS 6/11/2012 0600 to 8/2/2012 1700, Digital Governor Install / Annual Maintenance

MU10 OOS 7/23/2012 0600 to 8/30/2012 1700, Digital Governor Install

Studies:

The Dalles Adult PIT Alternatives Study team conference call occurred July 26. The team went through the matrix and discussed the design issues as well as costs to come up with the recommendation of the count stations for both ladders. The underwater antennas would be a maintenance issue. A possibility would be a modular weir with a removable section, but there is still the issue of having to dewater to repair or replace submerged antennas. Also discussed what type of mechanical device would be needed to lift and lower the modular sections. The disadvantage of 8" to 24" distance through the slot was discussed for alternative #3 and could be harmful to lamprey passage. The discussion will be documented in the final matrix for the 100%. TDAE alternative #3 PIT tag antenna concept will be located at weirs 149,150,151 down stream of count station. TDAN alternative #3 PIT tag antenna concept will be located at weirs 155, 156, and 157.

Supporting EFL backup water study as needed. No recent meeting activity. Fishlock and deep intake alternatives moving forward.

Research/Contractors:

ODFW Bass Dam Angling Project: The Dalles forebay, 0 caught this week, 84 smallmouth bass YTD; The Dalles tailwater, 8 caught this week, 134 smallmouth bass YTD. Tagged SMB totals: forebay - 63 new tag, 20 recaptured, 2 removed YTD. Sampling activities continue to produce steady but low bass catch.

The Columbia River Northern Pikeminnow Management Program Dam Angling: effort hours - 52.6, total NPM - 220, Total YTD 2,742, NPM \geq 213 mm - 213, adult salmonids - 1, game fish - 12, non-game fish - 3. The program will continue through the end of September.

The Confederated Tribes of the Umatilla Reservation (CTUIR) adult lamprey Collections: east ladder - 45, north ladder 18 trapped inside the count station picketed leads. Catch will be split between Umatilla, Yakama, and Nez Perce.

WDFW fish counters continuing 16 hr/day counting.

Battelle is continuing the summer JSAT performance testing. The forced outage at Unit 1 and 2 may affect validity of test.

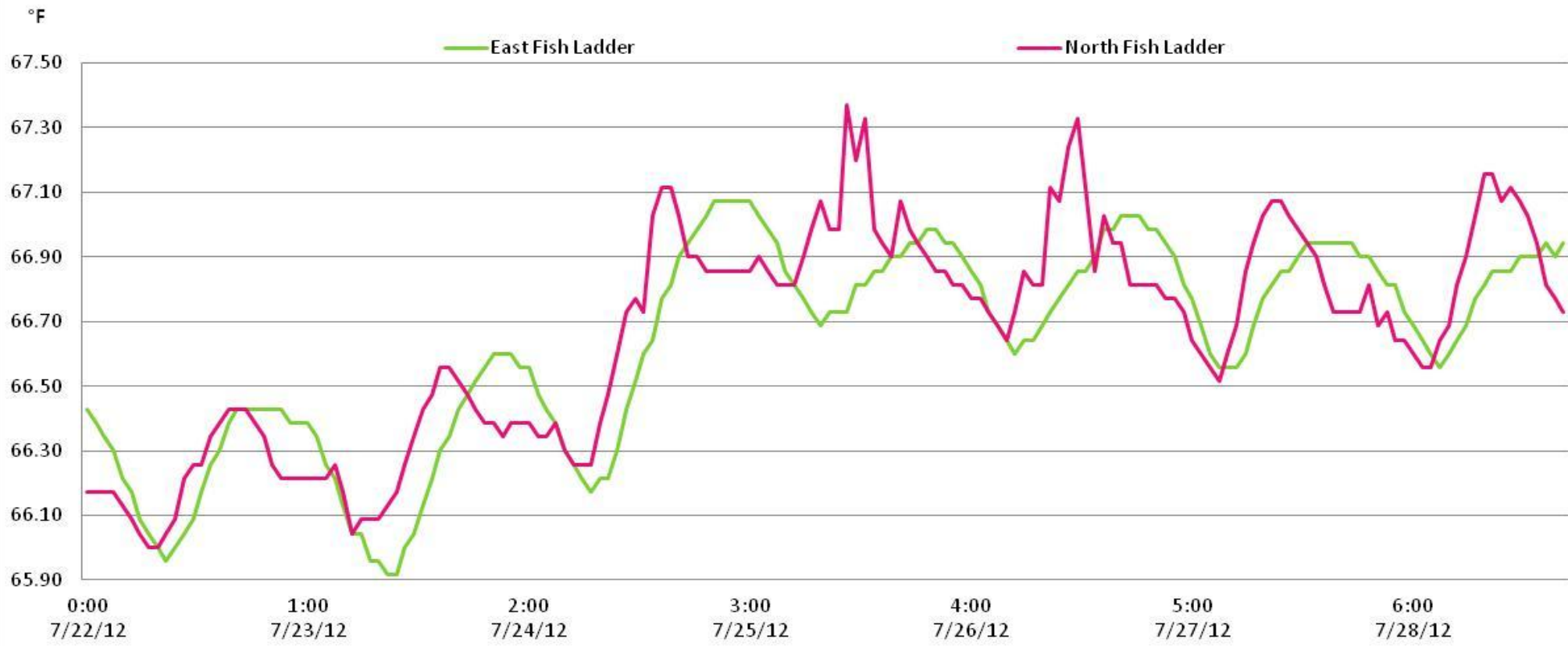
USFWS continues adult lamprey video camera monitoring at the counting stations, between picket leads. North exit DIDSON sonar to be installed at a later date.

PSMFC sampling effort at the PUD turbine, once a week, from 0800 hrs. on Tuesday to 0800 hrs. on Wednesday. Sample mortality rates normal.

One sub-yearling in excellent condition collected.

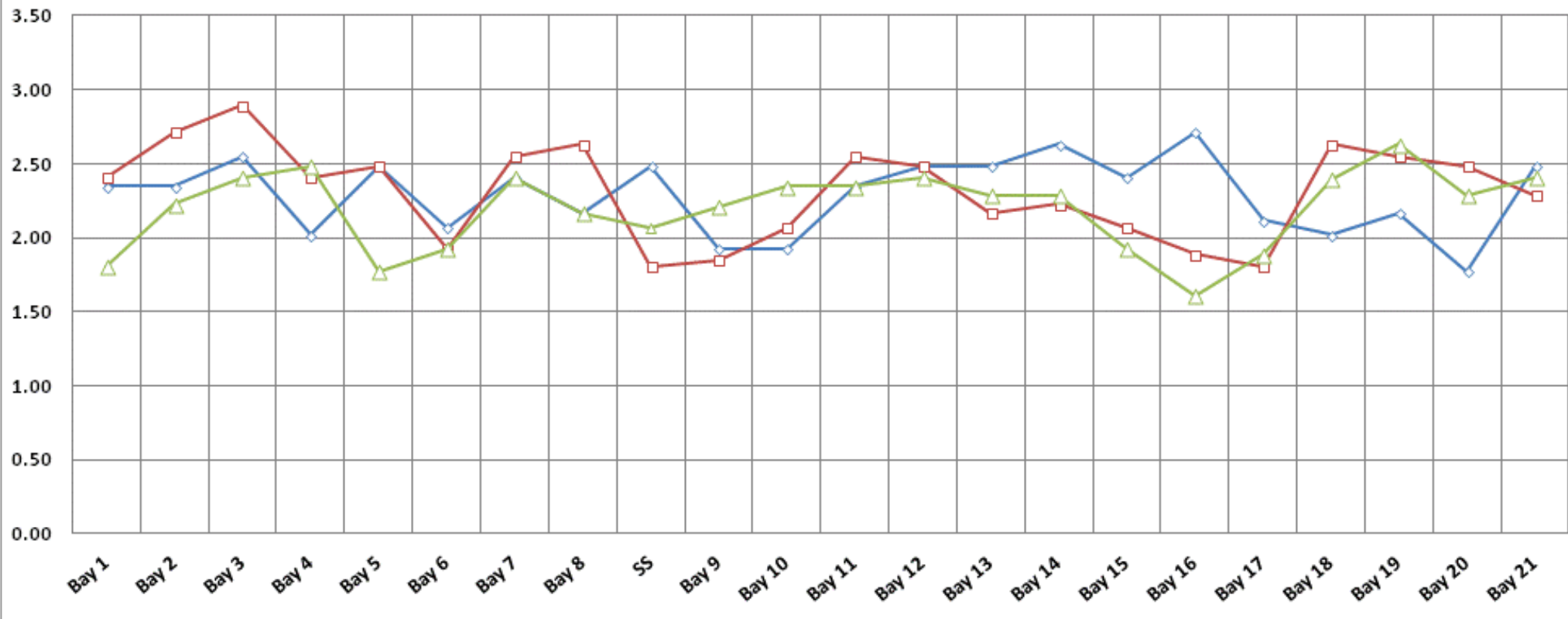
Approved by;
Ron D. Twiner
Operation Project Manager
The Dalles Dam

The Dalles Adult ladder Water Temperatures



The Dalles Dam Collection Channel Velocities (fps)

7/11/2012 7/18/2012 7/28/2012



The Dalles Dam Daily Bird Observations

Washington Shore

SW-T1: no birds.

SW-T3: 0 to six cormorants resting, five to seven gulls fly-by, one to 12 gulls foraging, and three to 106 gulls resting.

SW-T4: one osprey fly-by, one cormorant fly-by, 0 to two cormorants foraging, one to nine gulls fly-by, 0 to 12 gulls resting, and four to 132 gulls foraging.

FB1: one osprey resting and one foraging, 11 to 16 grebes fly-by, 3 to 93 grebes resting, one gull foraging, three to 50 gulls resting, and 13 to 65 cormorants resting.

SW-T2: one to two osprey resting, 0 to six cormorants fly-by, and 0 to three cormorants foraging

PH-T1: one merganser foraging, one osprey foraging and one fly-by, three grebes fly-by, one to two grebes resting, four to 11 grebes foraging, one to three gulls foraging and fly-by, and one to 15 cormorants resting.

PH-T2: no

PH-T3: one gull resting, one to three gulls foraging, and one osprey foraging.

Oregon Shore

Temp:		Secchi:	
	66.2	SUN	4.0
	66.1	MON	4.0
	66.4	TUES	4.0
	66.7	WED	4.0
	66.7	THUR	3.5
	66.6	FRI	4.0
	66.6	SAT	3.3
AVG:	66.5	AVG:	3.8

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				
Date:	Differential	N1 Depth	Differential	E1Depth	E2 Depth	E3 Depth	JP 6	Differential	W1Depth	W2 Depth	W3 Depth	Differential	S1 Depth	S2 Depth	% Spill	
7/22/12	1.4	10.1	1.5	10.0	10.9	11.1	12.3	1.5	8.0	8.0		1.6	8.9	9.1	39.3	
7/22/12	1.4	10.2	1.8	9.9	11.0	10.9	11.5	1.5	8.2	8.2		1.5	9.0	9.0	43.8	
7/22/12			1.8	9.6	11.0	11.0		1.4	8.2	8.2		1.5	9.1	9.0		
7/23/12	1.4	10.2	1.6	10.5	11.1	11.0	11.3	1.2	8.4	8.3		1.3	8.8	8.9	37.7	
7/23/12	1.4	10.1	1.6	10.6	10.9	10.9	11.6	1.4	8.0	8.1		1.5	8.9	9.0	40.3	
7/23/12			1.6	10.9	11.1	11.0		1.1	8.2	8.3		1.3	9.1	9.1		
7/24/12	1.4	10.2	1.6	10.0	9.9	10.0	10.9	1.3	8.1	8.2		1.6	9.0	8.9	37.8	
7/24/12	1.4	10.1	1.7	10.5	10.4	10.5	10.9	1.4	8.1	8.1		1.4	9.6	9.5	39.8	
7/24/12			1.2	10.6	11.1	11.1		1.2	8.0	8.1		1.4	9.0	8.9		
7/25/12	1.4	10.1	1.6	10.0	9.9	10.0	10.1	1.4	8.2	8.1		1.4	8.6	8.7	40.0	
7/25/12	1.4	10.1	1.4	9.1	10.1	10.1	9.5	1.3	8.1	8.1		1.4	8.5	8.6	40.4	
7/25/12			1.1	10.5	10.6	10.6		1.1	8.2	8.2		1.1	9.6	9.7		
7/26/12	1.1	10.3	1.6	8.9	9.1	9.1	8.0	1.1	8.1	8.2		1.3	8.7	8.6	40.9	
7/26/12	1.4	10.3	1.7	10.1	10.5	10.5	12.9	1.6	8.2	8.2		1.6	8.7	8.7	32.7	
7/26/12			1.3	9.8	9.8	9.9		1.2	8.1	8.0		1.5	8.5	8.4		
7/27/12	1.4	10.0	1.5	10.0	10.5	10.4	9.1	1.3	8.1	8.1		1.5	8.5	8.5	38.9	
7/27/12	1.4	10.1	1.5	10.1	11.0	11.0	11.1	1.4	8.1	8.0		1.5	8.5	8.5	39.8	
7/27/12																
7/28/12	1.5	9.9	1.5	9.5	9.5	9.5	8.1	1.2	8.0	8.0		1.5	8.1	8.1	40.6	
7/28/12	1.4	10.2	1.5	9.4	9.4	9.5	9.0	1.3	8.1	8.0		1.3	8.3	8.2	39.6	
7/28/12			1.3	9.6	9.5	9.5		1.1	8.0	8.0		1.4	8.2	8.2		
AVG:	1.4	10.1	1.5	10.0	10.4	10.4	10.5	1.3	8.1	8.1	No criteria	1.4	8.8	8.8	39.4	

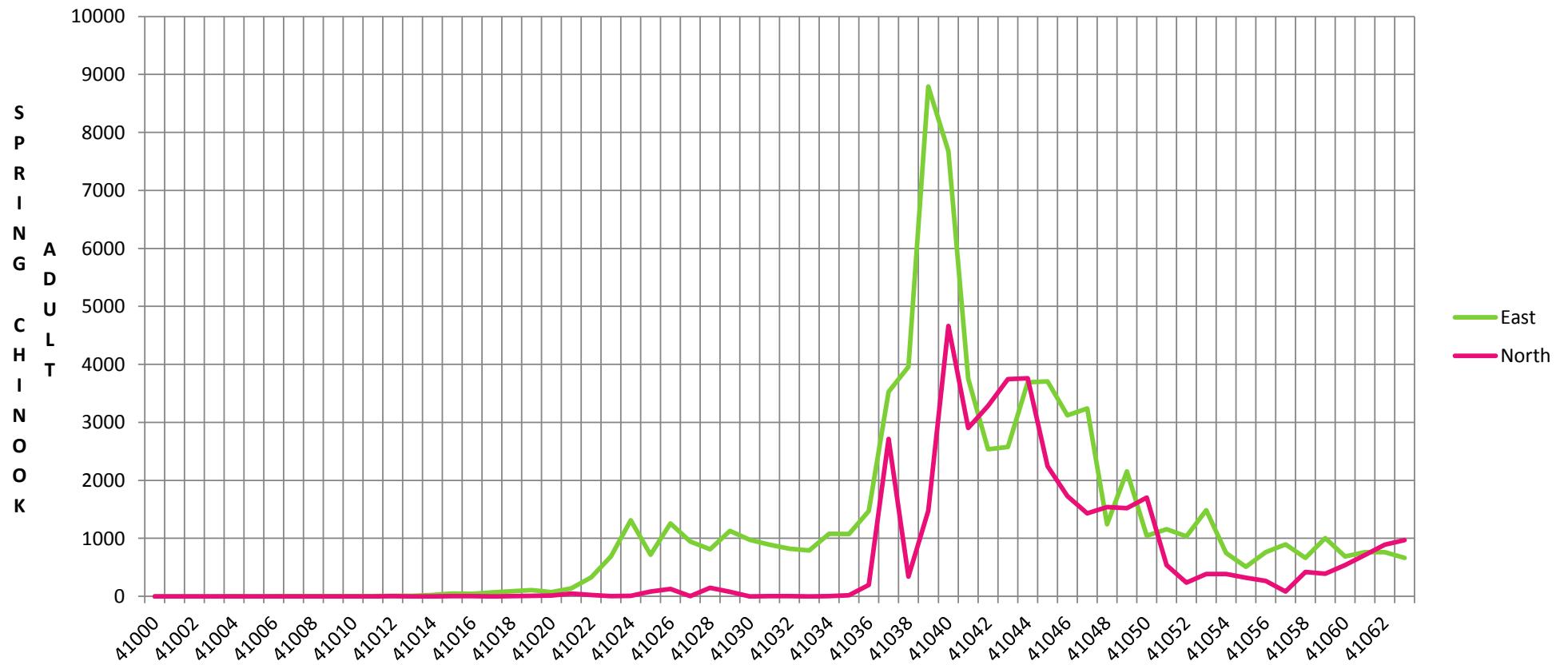
Third fish way inspection for east fish ladder, east, west, and south entrances completed via automation system in fisheries office.

The Dalles Dam Fish Counts

Date	East	North	East	North	Total	Total	East	North					East	North			East	North	KCFS
	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
22-Jul	510	49	118	1	2310	69	1048	44	126	-1	0	0	0	0	53	8	0	0	312.1
23-Jul	367	42	114	2	2375	76	1079	50	104	1	0	0	0	0	80	6	0	0	308.3
24-Jul	473	22	130	0	2576	45	994	26	152	0	0	0	0	0	106	4	0	0	291.1
25-Jul	360	62	143	0	2453	119	1260	71	110	1	1	0	0	0	113	2	0	0	273.2
26-Jul	412	76	126	11	2276	366	1066	180	91	10	2	0	0	0	95	11	0	0	284.3
27-Jul	371	145	137	11	2404	504	1156	270	84	4	0	0	0	0	68	54	0	0	265.1
28-Jul	386	106	127	13	2400	530	1098	288	64	6	0	0	0	0	104	29	0	0	236.9
Wkly Tot	2879	502	895	38	16794	1709	7701	929	731	21	3	0	0	0	619	114	0	0	281.6
% Split	85.2%	14.8%	95.9%	4.1%	90.8%	9.2%	89.2%	10.8%	97.2%	2.8%	100.0%	0.0%	#DIV/0!	#DIV/0!	84.4%	15.6%	#DIV/0!	#DIV/0!	

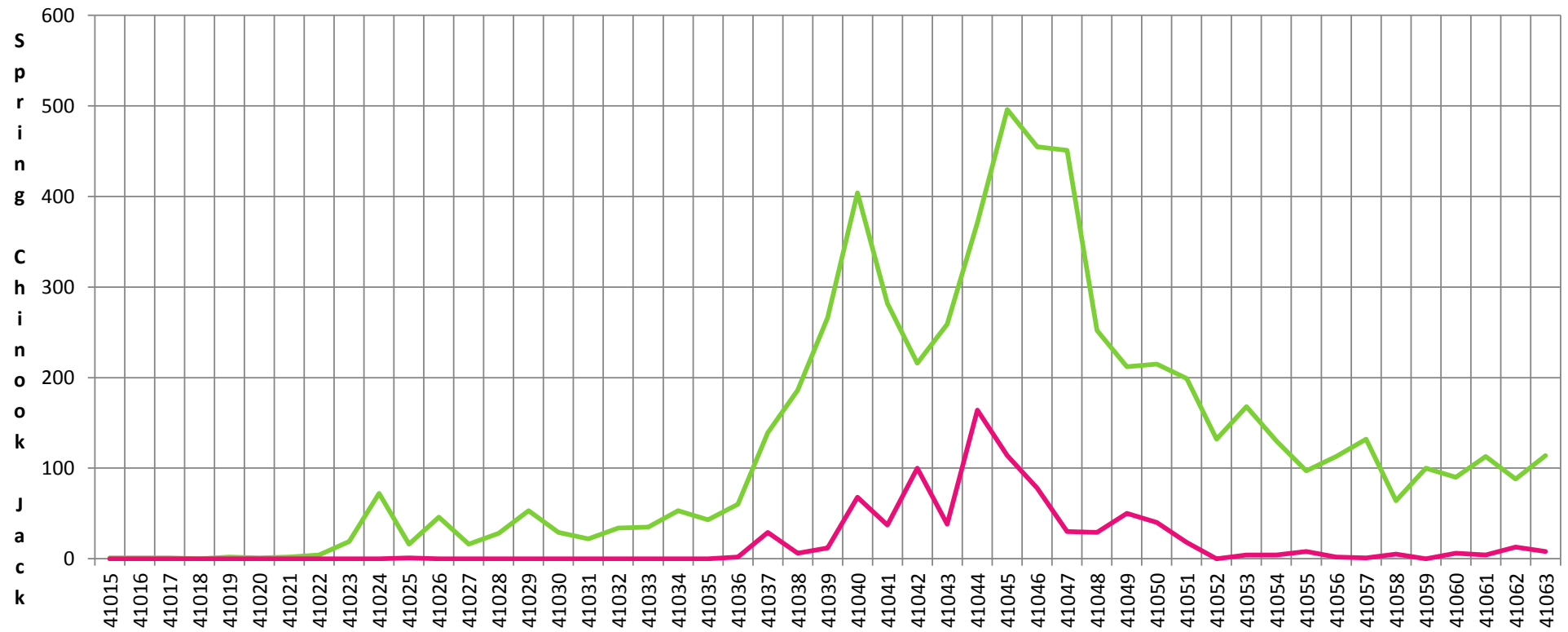
Spill range: 32.7 - 40.9%. Note: All graphs for The Dalles Dam fish passage provided by Terry Hurd (John Day Dam Smolt Monitoring System)

The Dalles - 2012



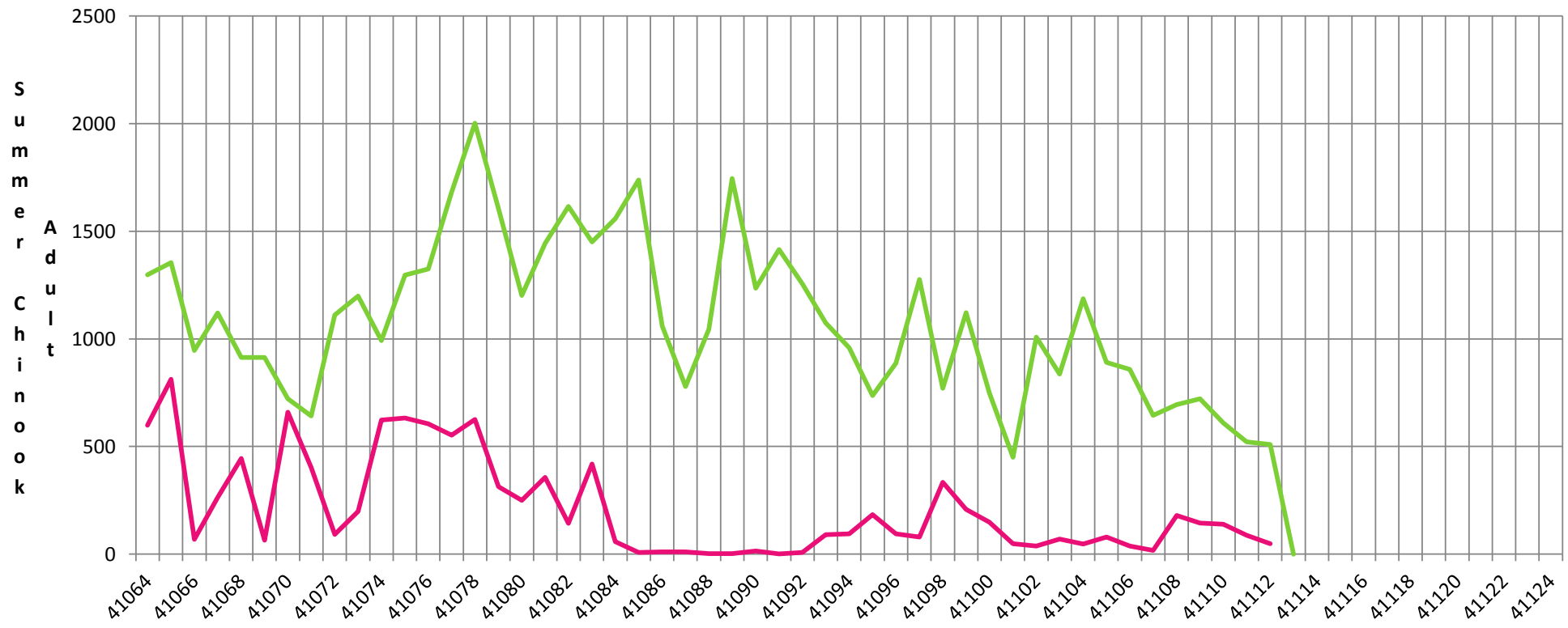
The Dalles - 2012

— East — North



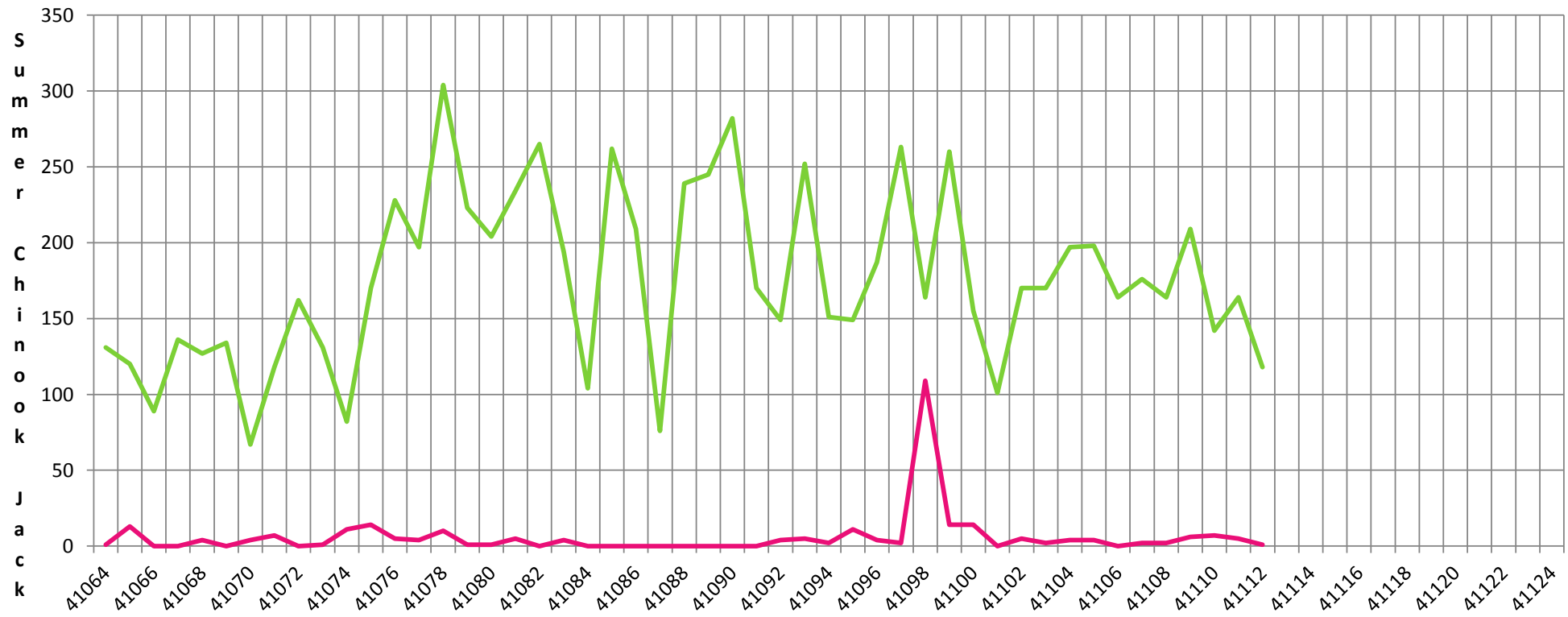
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— East — North



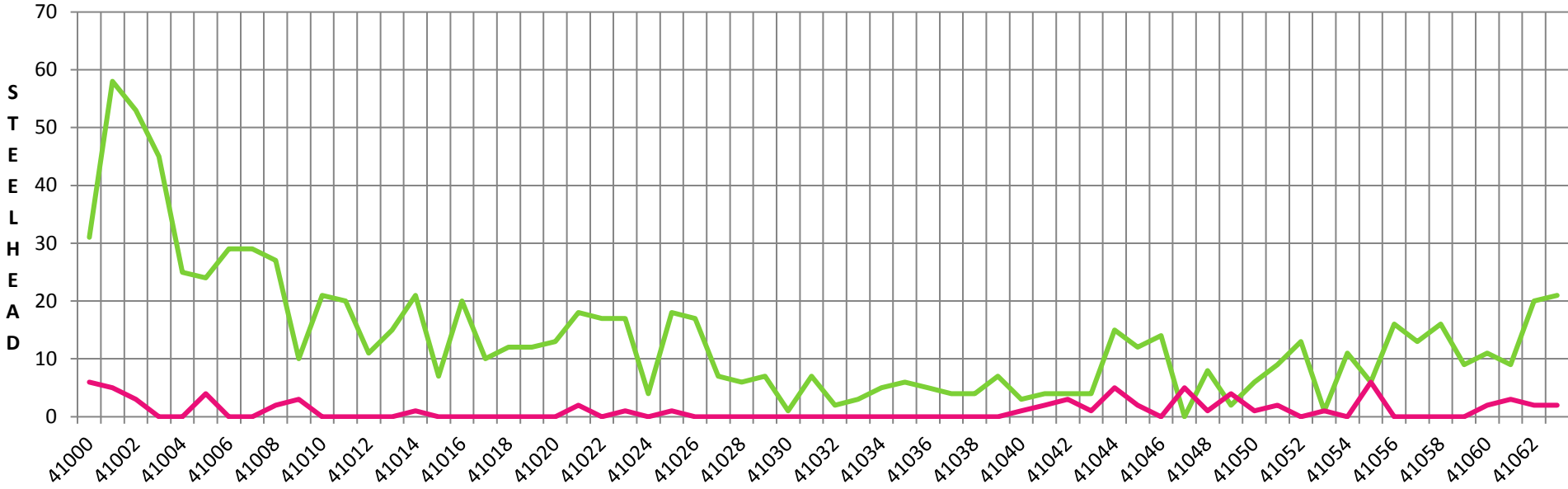
The Dalles - 2012

— East — North



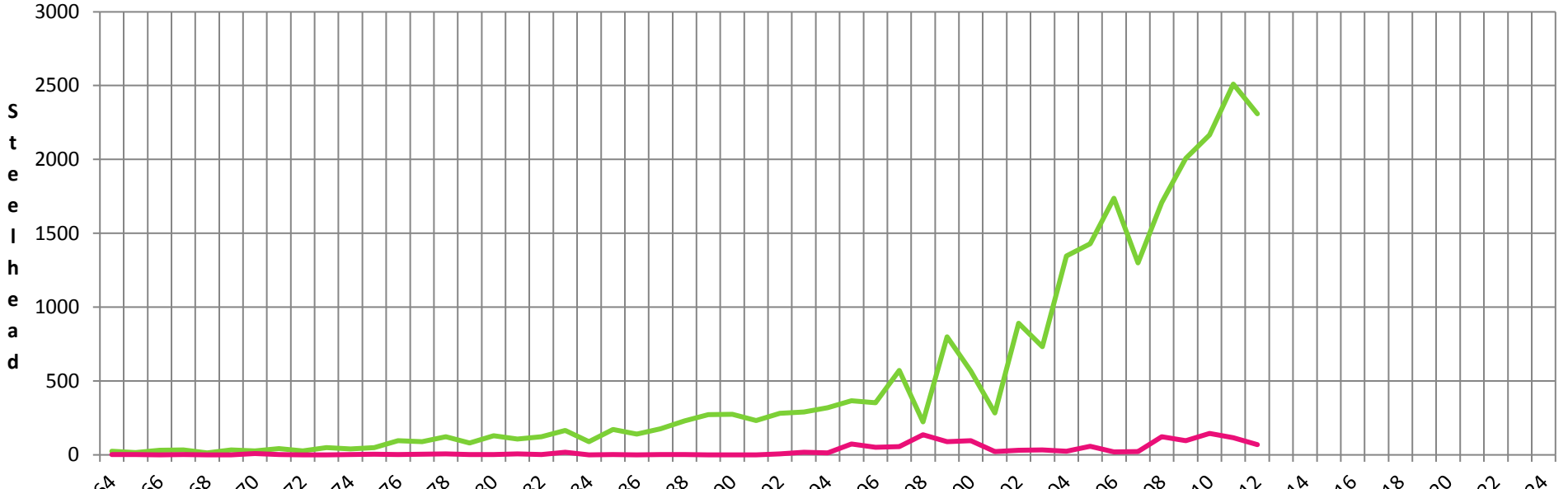
The Dalles - 2012

— East — North

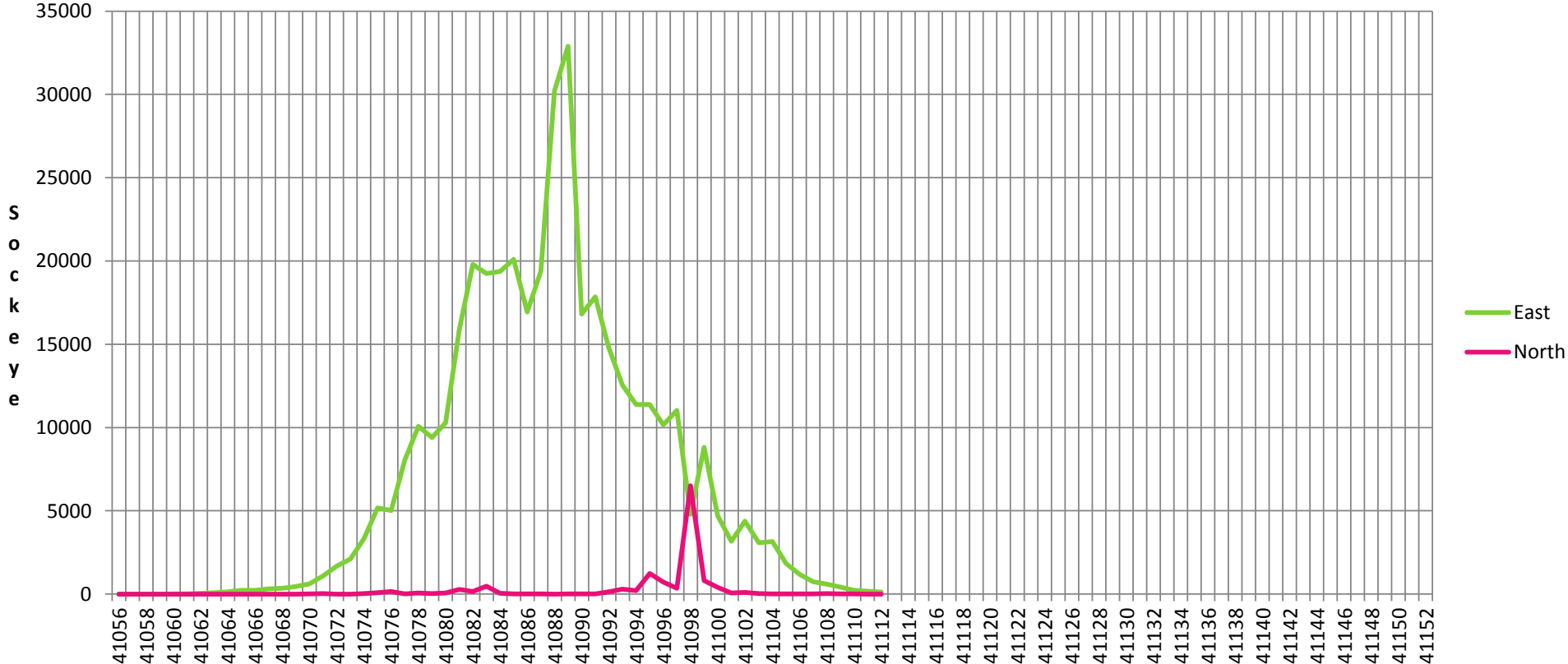


The Dalles - 2012

— East — North



The Dalles - 2012



The Dalles - 2012

East North

