

# The Dalles Dam Fishway Status Report

09/15/19

Inspection Period: 9/8-9/14, 2019

## THE DALLES DAM



US Army Corps  
of Engineers  
Portland District

The Dalles Project-Fisheries  
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The Dalles, OR 97058-9998  
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: Comments: Hot Dam!	21	Temperature: 71.1 °F	Secchi: 5.0 feet
<b>NORTH FISHWAY</b>						
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 for week =	1.26		
Entrance weir N1	0	depth (≥ 8')	Average for week =	9.1		
Entrance weir N2	0	Closed				
PUD Intake differential	0	≤ 0.5'				
<b>EAST FISHWAY</b>						
Exit differential	0	≤ 0.5'				
Removable weirs 154-157	0	Per forebay	Weir 157 experiencing mechanical brake failure, able to maintain criteria manually.			
Weir 158-159 differential	0	1.0' ± 0.1'				
Count station differential	0	≤ 0.3'				
153 Weir crest depth	0	1.1' ± 0.1'	occasionally exceeds 1.2			
Junction pool weir JP6	0	0.0	Average for week =	8.2		
East entrance differential	0	1.0' - 2.0'	Average for week =	1.47		
Entrance weir E1	0	No criteria				
Entrance weir E2	0	depth (≥ 8')	Average for week =	11.25		
Entrance weir E3	0	depth (≥ 8')	Average for week =	11.11		
Collection channel velocity	0	1.5 - 4 fps	2.98 fps Average	Range:	3.91 fps MU1 - 2.32 fps MU21 9/13/19	
Transportation channel velocity	0	1.5 - 4 fps	2.69 fps 9/13			
North channel velocity	0	1.5 - 4 fps	4.00 fps 9/14			
South channel velocity	0	1.5 - 4 fps	4.03 fps 9/13 Low tailwater leading to higher velocities			
West entrance differential	0	1.0' - 2.0'	Average for week =	1.3	Closed 9/12 due to slack cable	
Entrance weir W1	0	depth (≥ 8')	Average for week =	8.4		
Entrance weir W2	1	depth (≥ 8')	Average for week =	8.3	left in manual	
Entrance weir W3	0	1.0' - 2.0'	Average for week =	8.3	Opened 9/12, in place of W1	
South entrance differential	0	1.0' - 2.0'	Average for week =	1.4		
Entrance weir S1	0	depth (≥ 8')	Average for week =	8.4		
Entrance weir S2	0	depth (≥ 8')	Average for week =	8.4		
<b>JUVENILE PASSAGE</b>						
Sluiceway operation	0	Units 1, 8, 18				
Turbine trashrack drawdown	0	<1.5', biwkly	Fish check in gatewells 9/14, Only adult shad loafing about in some wells.			
Spill volume/pattern	0	None				
Turbine Unit Priority	0	per FPP				

## OTHER ISSUES:

### Operation

East & North fish ladders in full operation.  
Sluiceway open with 6 gates total. Units 1, 8 and 18.  
Spillway closed

### Outages

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels  
T5 OOS 0630 9/3/2019 - 1700 11/25/2019 for T5 GSU Replacement & MU9 O/H  
MU10 OOS 0001 9/3/2019 - 1700 11/25/2019 for Annual  
MU1 and MU2 restricted to 160 MW combined through 5/28/2020

### Maintenance

Calibration check 9/13: east and west TW and CH OOC, west gates 1 and 3 OOC.  
Collection channel dewatering pumps 5 and 6 rehab ongoing. Completion prior to Dec for dewatering.  
Fishway automation replacement purchase ongoing. Labor for assembly and install FY20.  
Engineering evaluation of east fishway diffuser valve status/rehab to resume.  
Spillway assessment (MRER); No funding for FY20. Spillgate 9 fish priority to be considered.  
Weir 157 secured out of ladder. Soft constraint in place to hold forebay below 195.5' for two weeks to begin 9/6/19 to maintain ladder flow criteria.  
West entrance weir E1 closed due to cable problems, using E3, not desirable but provides two weirs w/ >8' depth

### Predators

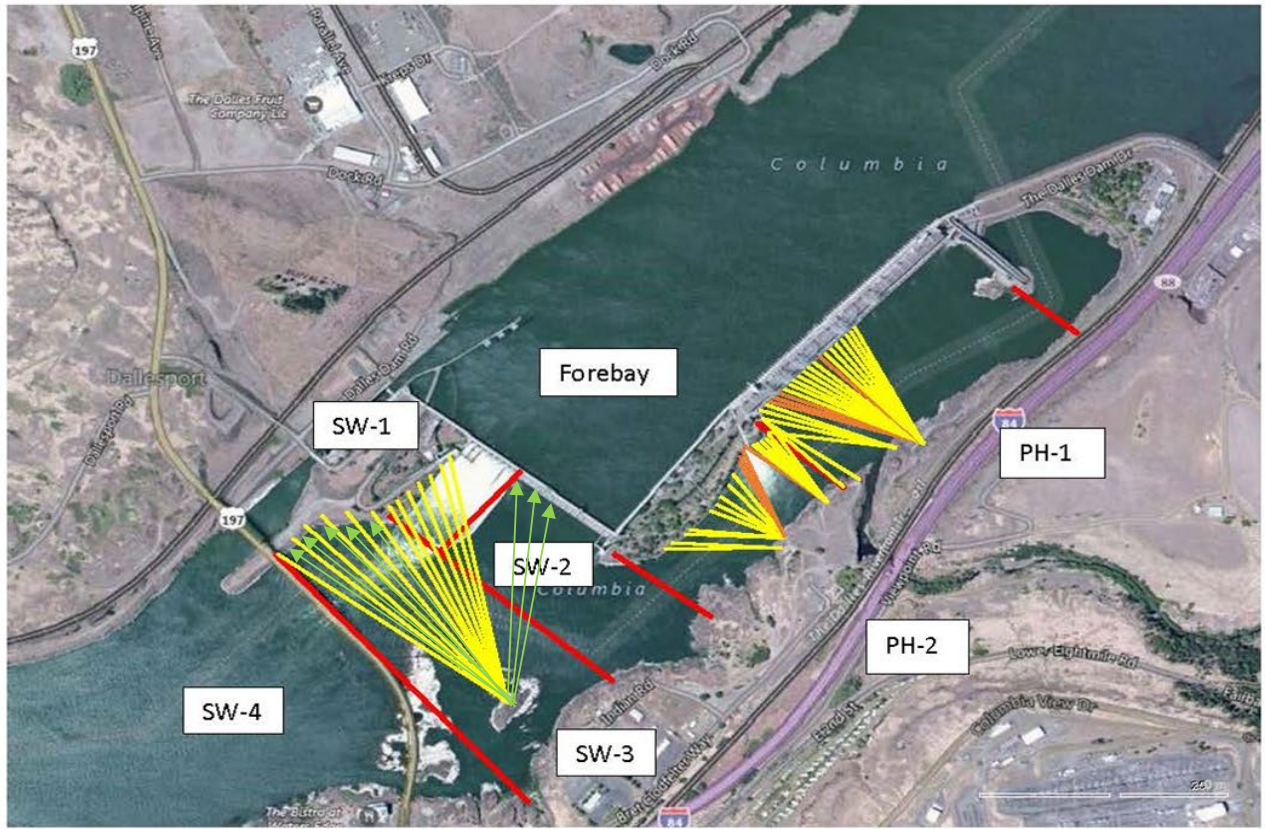
USDA hazing season concluded July 31. Post season meeting held 9/10  
No pelicans observed, Cormorant and gull remain in small numbers  
Sea Lions not observed from dam year to date.

### Research/Construction/Contractors

HDC removed temperature string from forebay, data analysis underway  
Four Peaks fish counting continues.  
For fish count data refer to; [FPC FISH COUNTS](#)  
AWS backup - Moving forward with follow on contract items and spare parts. Pre meeting this week with potential vendors.  
PSMFC weekly PUD sampling last sample taken for season on 7/31. To resume next April.  
PITAGS north and east fishladder data collection at count stations continues.  
Pikeminnow dam angling-1/week & 2228 YTD. **Bass/Walleye catch and release continues.** States in 3rd year of internal discussions on the matter.  
ODFW monthly fishway inspections ongoing.  
Lamprey minor mods - Planning for potential LPS in junction pool. Awaiting planning meetings.  
U of I - Second season of lamprey passage night flow testing concluded, results pending.  
Lamprey trapping - Concluded 9/13 with 603 translocated.  
Fish unit breaker replace.- Planning second season of work Dec1-Mid Jan. Multiple measures taken to avoid last years unacceptable schedule slip.  
Fish unit rehab - Ongoing for phase 1A.

Approved by: Mike Colesar

Operation Project Manager The Dalles Dam



Red lines = avian zones

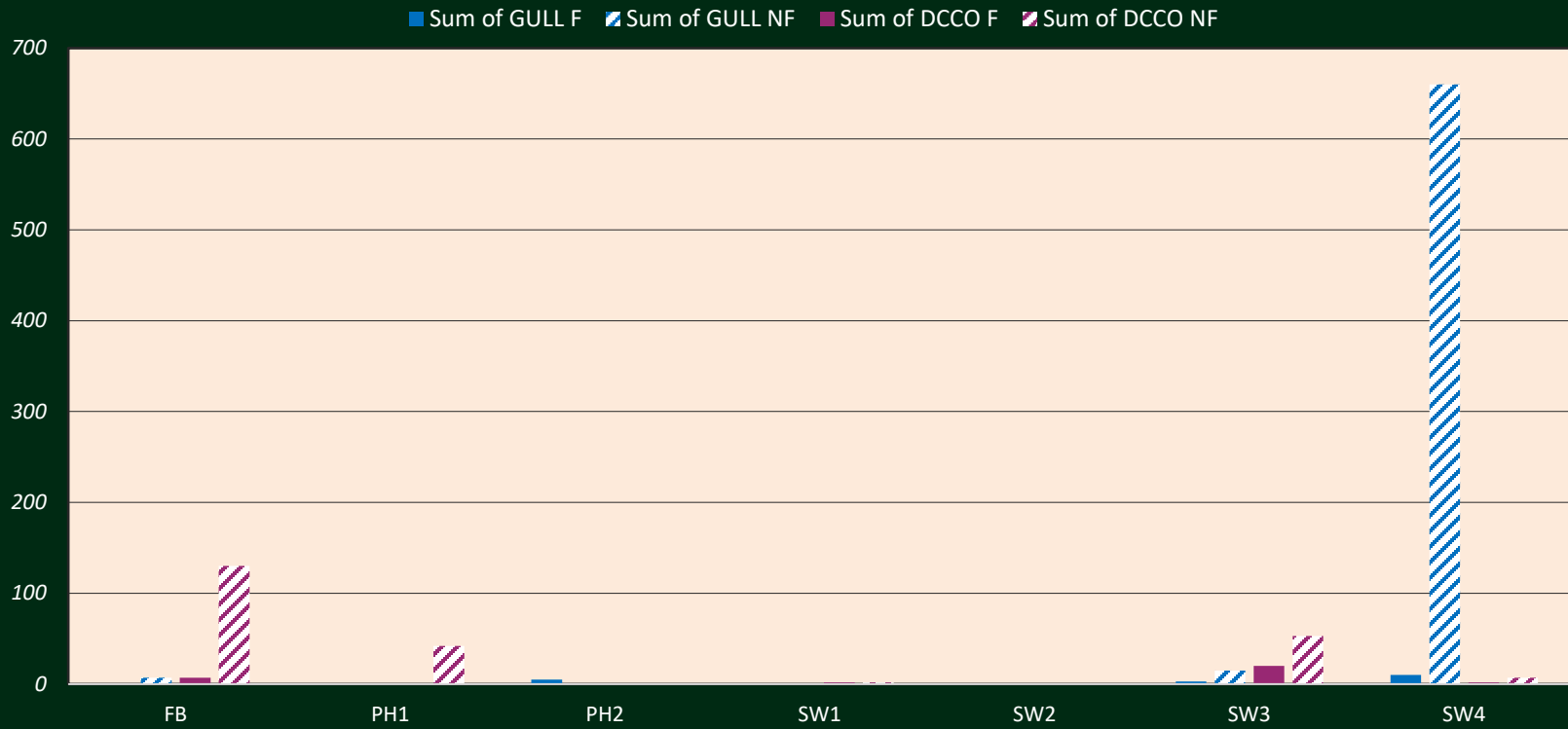
Yellow lines = current wires

Orange lines = down or missing wires



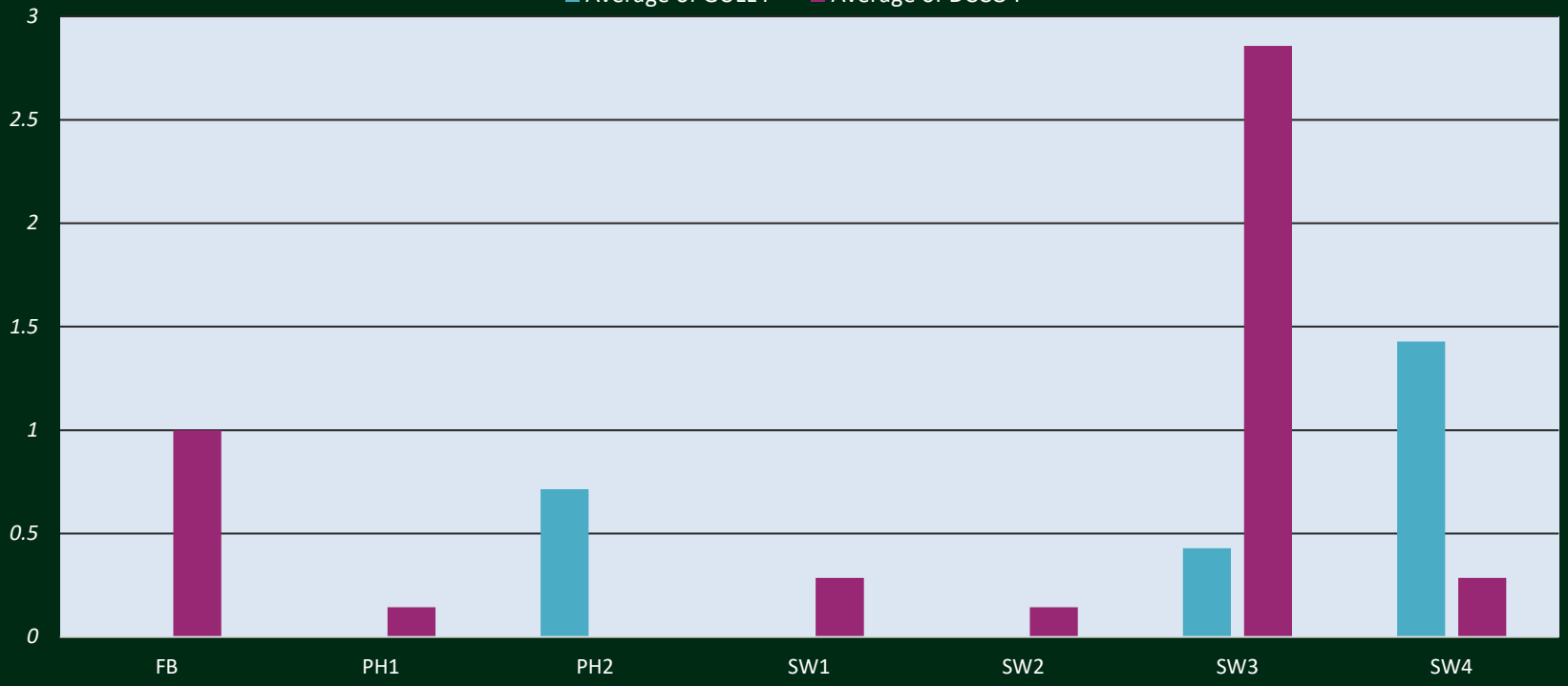
Additional avian lines installed 9/2018

# Total Bird Activity by Zone

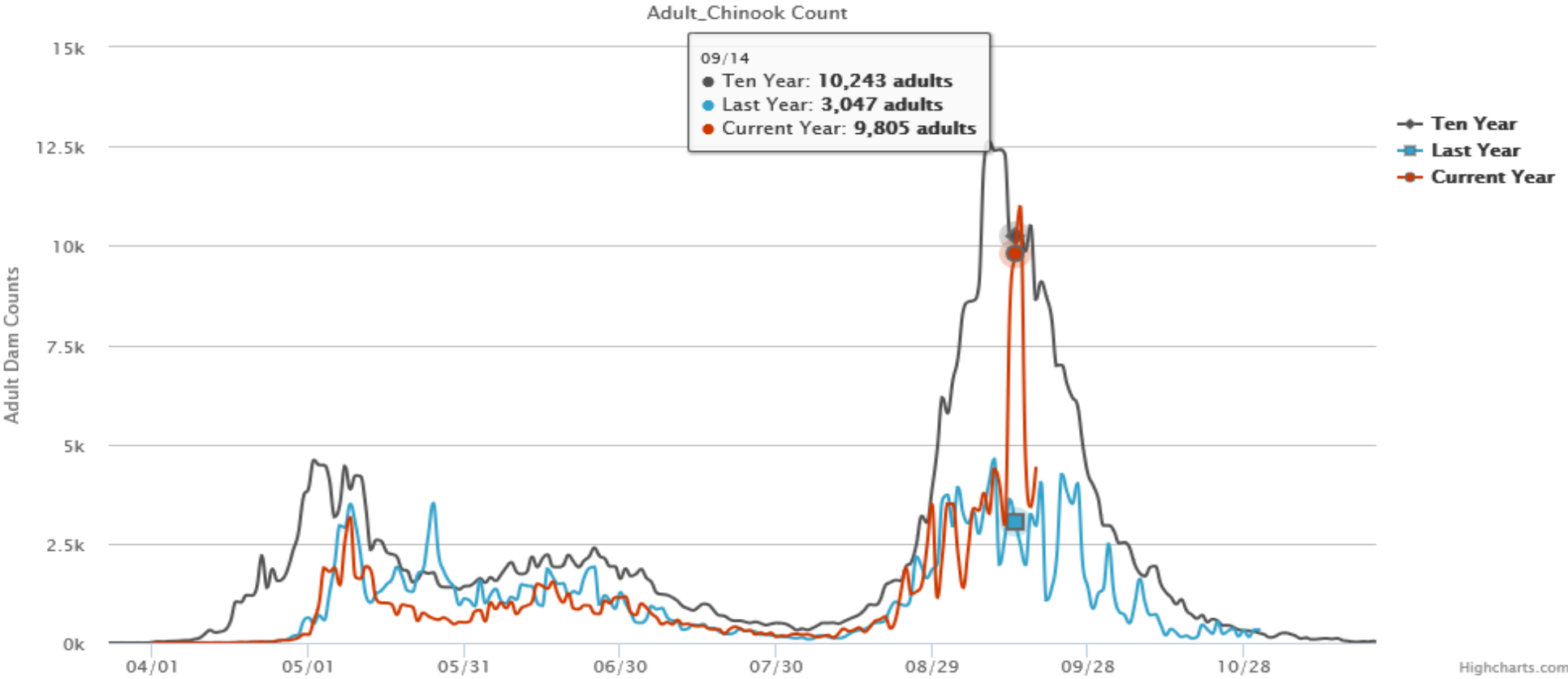


# Average Daily Bird Foraging

Average of GULL F    Average of DCCO F

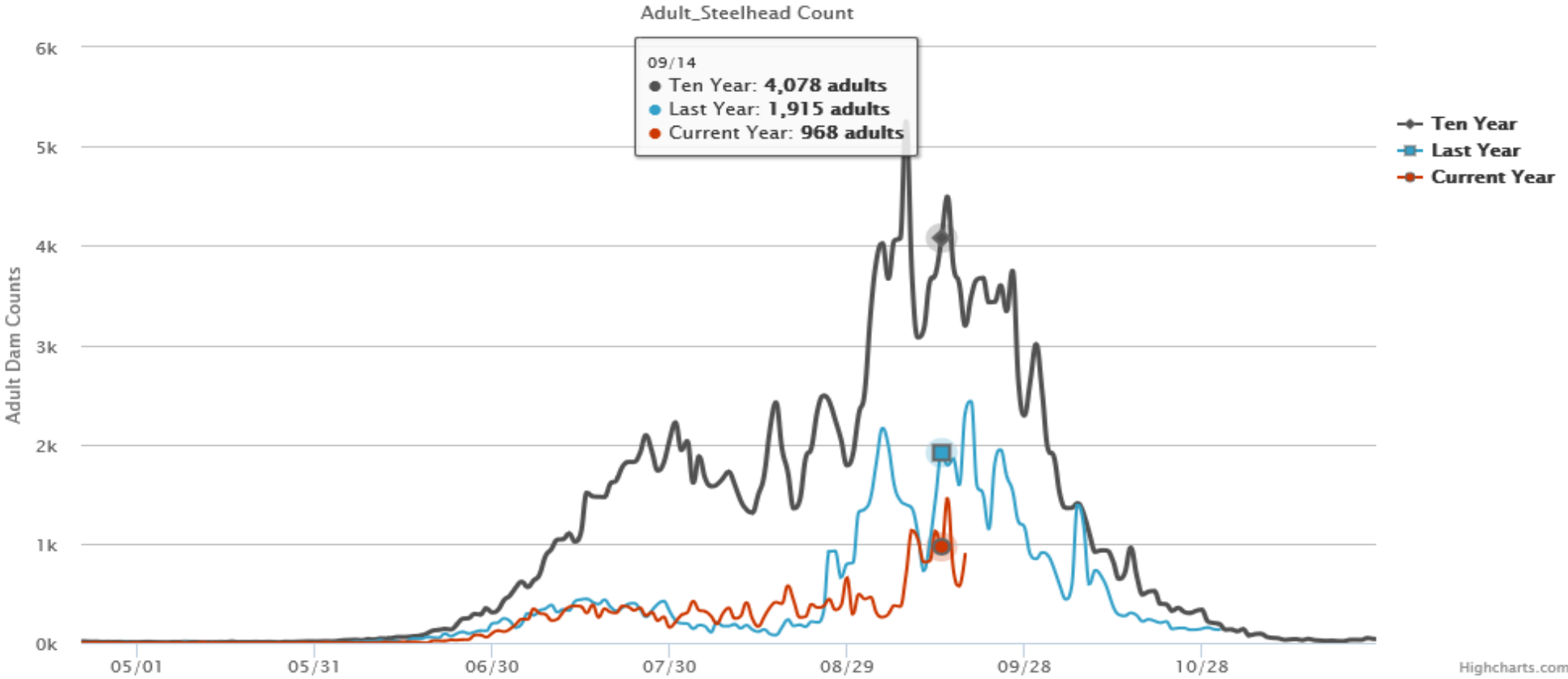


# The Dalles Dam Adult Count Graph



[FPC Passage Graph](#)

# The Dalles Dam Adult Count Graph

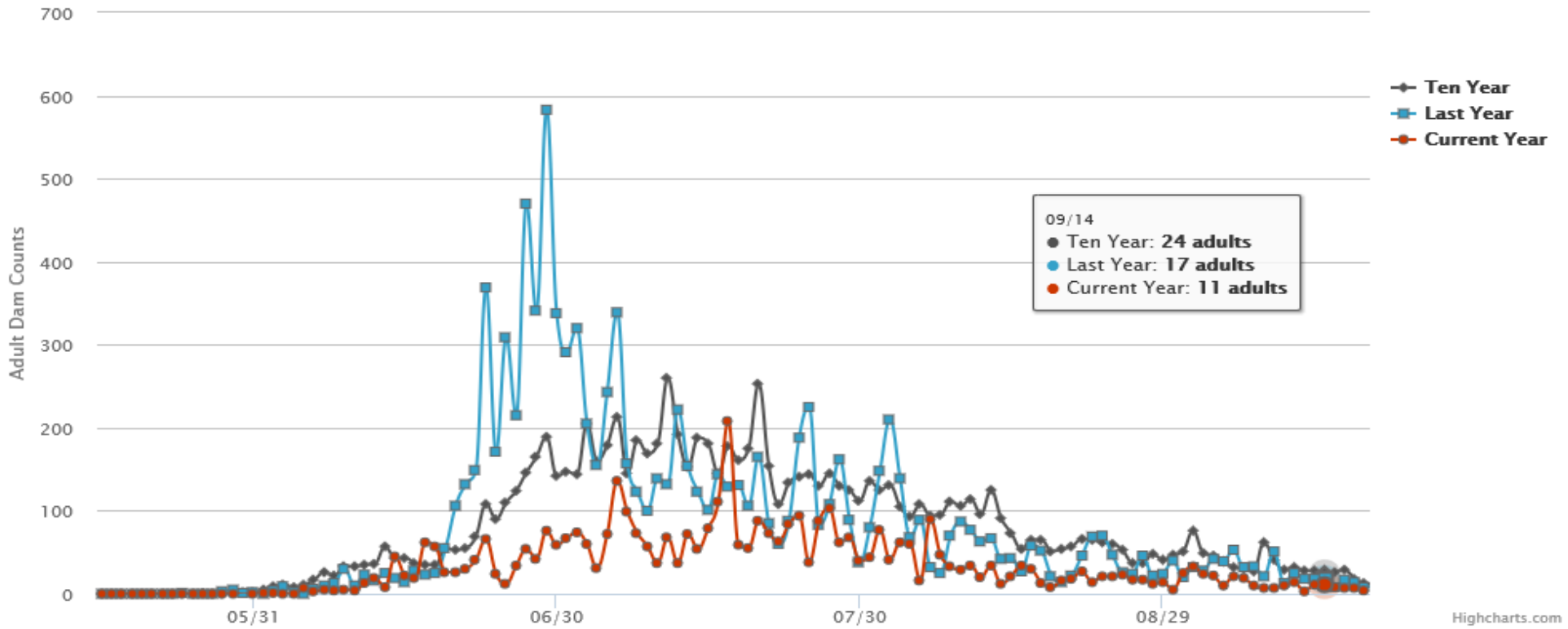


[FPC Passage Graph](#)

# The Dalles Dam Adult Count Graph



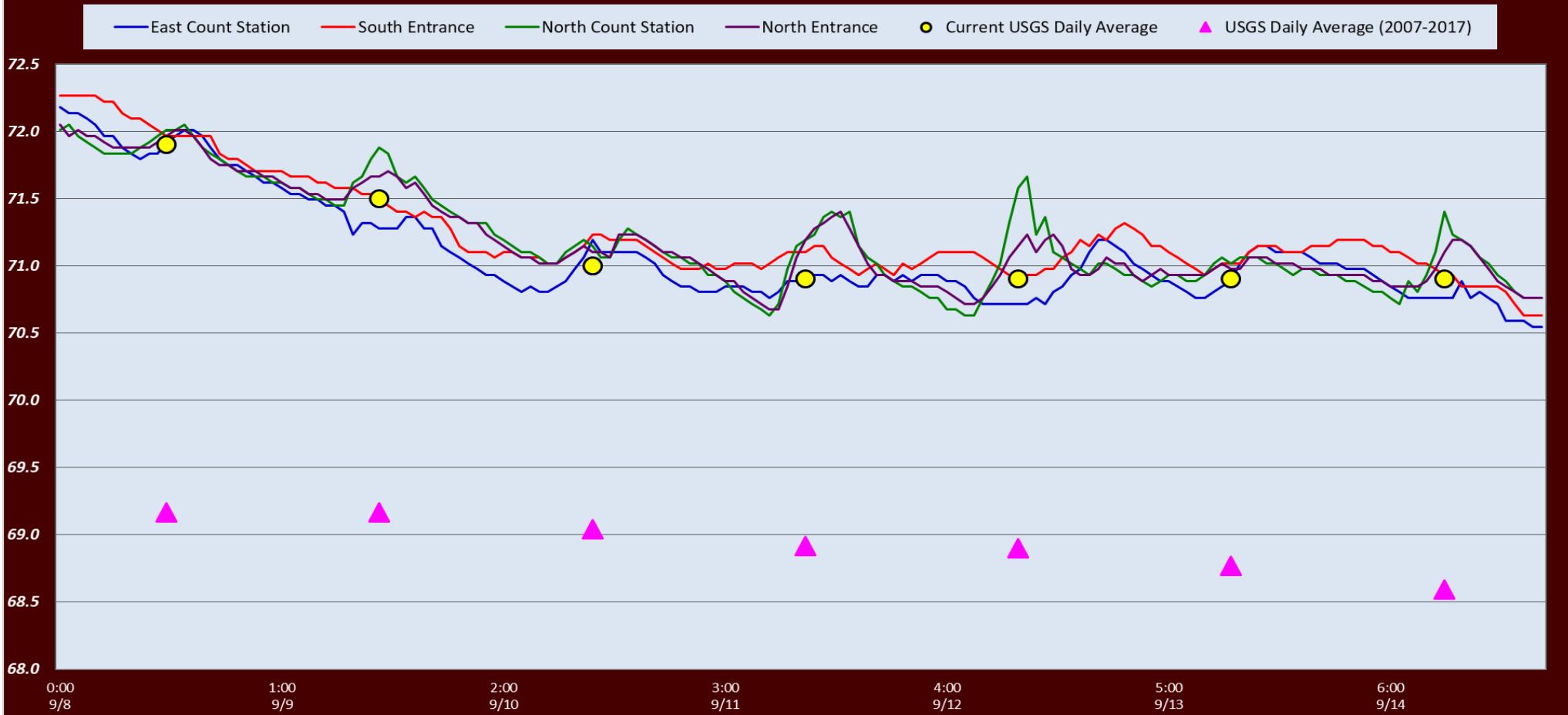
Adult\_Lamprey Count



[FPC Passage Graph](#)



# The Dalles Dam Fish Ladder(s) -River Temperatures



		USGS:
Secchi:		Temperatures
9/8	5.0	Sun 71.9
9/9	5.0	Mon 71.5
9/10	5.0	Tue 71.0
9/11	5.0	Wed 70.9
9/12	5.0	Thurs 70.9
9/13	5.0	Fri 70.9
9/14	5.0	Sat 70.9
	5.0	AVG 71.1

[Sept. Temps](#)

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

SCADA INSPECTION  
out of criteria

Date:	North Ladder Entrance		East Ladder											
			East Entrance				West Entrance			South Entrance				
	Differential	N1 Depth	Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
9/8			1.6		13.3	12.2	8.7	1.4	8.1	8.1		1.4	8.6	8.6
	1.1	9.3	1.6		13.3	12.2	8.5	1.4	8.2	8.2		1.4	8.6	8.6
	1.1	9.3	1.5		11.1	10.9	8.6	1.4	8.1	8.1		1.5	8.3	8.2
9/9			1.5		11.0	11.0	8.2	1.4	8.5	8.5		1.5	8.3	8.3
	1.1	9.0	1.5		11.0	11.0	8.1	1.4	8.7	8.7		1.5	8.3	8.3
	1.4	8.7	1.4		10.9	10.9	7.8	1.5	8.2	7.1		1.5	8.3	8.2
9/10			1.4		11.0	11.0	7.9	1.5	8.5	8.5		1.5	8.9	8.9
	1.3	8.6	1.5		11.0	11.0	7.6	1.5	8.3	8.3		1.4	8.3	8.3
	1.4	9.5	1.4		11.0	11.0	8.5	1.4	8.3	8.3		1.4	8.4	8.4
9/11			1.4		11.1	11.1	8.5	1.2	8.8	8.8		1.5	8.2	8.2
	1.2	8.7	1.4		11.0	11.0	8.5	1.4	8.5	8.5		1.4	8.4	8.4
	1.4	9.6	1.4		11.1	11.1	8.5	1.2	8.4	8.4		1.5	8.2	8.2
9/12			1.4		11.0	11.0	8.2	1.1	8.5	8.5		1.5	8.2	8.2
	1.3	9.5	1.6		10.9	10.9	8.9	1.2		8.1	8.2	1.5	8.2	8.2
	1.4	9.7	1.4		11.0	11.0	8.4	1.2		8.5	8.5	1.5	8.3	8.3
9/13			1.4		11.1	11.0	7.8	1.0		8.3	8.3	1.4	8.3	8.4
	1.2	8.8	1.5		11.0	11.0	7.8	1.2		8.1	8.1	1.2	9.2	9.2
	1.3	8.9	1.5		11.1	11.1	8.3	1.2		8.3	8.3	1.4	8.4	8.4
9/14			1.4		11.0	10.9	8.0	1.2		8.1	8.2	1.4	8.4	8.3
	1.3	8.7	1.5		11.0	10.9	8.0	1.2		8.1	8.2	1.4	8.3	8.3
	1.3	8.8	1.4		11.1	11.0	8.1	1.1		8.2	8.3	1.5	8.2	8.2
<b>AVG:</b>	<b>1.3</b>	<b>9.1</b>	<b>1.5</b>		<b>11.3</b>	<b>11.1</b>	<b>8.2</b>	<b>1.3</b>	<b>8.4</b>	<b>8.3</b>	<b>8.3</b>	<b>1.4</b>	<b>8.4</b>	<b>8.4</b>

*Fishways are inspected twice daily plus one SCADA inspection.*