

The Dalles Dam Fishway Status Report

08/2/2020

Inspection Period: 7/26-8/1

THE DALLES DAM



US Army Corps
of Engineers
Portland District

The Dalles Project-Fisheries
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The Dalles Dam	Inspections OOC	Criteria Limit	Total Number of Inspections: 21	Temperature: 69.9 °F
			Comments: fishways functional	Weekly Average Secchi: 0.0
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'	1.2	
Entrance weir N1	0	depth (≥ 8')	9.9	
Entrance weir N2	0	Closed		
PUD Intake differential	0	≤ 0.5'		
EAST FISHWAY				
Exit differential	0	≤ 0.5'		
Removable weirs 154-157	1	Per forebay	7/28 am, 156 slow to respond	
Weir 158-159 differential	0	1.1' ± 0.1'		
Count station differential	0	≤ 0.3'		
153 Weir crest depth	0	1.3' ± 0.1'		
Junction pool weir JP6	0	> 7.0'	Average for week =	10.7
East entrance differential	0	1.0' - 2.0'	Average for week =	1.4
Entrance weir E1	0	No criteria	Average for week =	5.2
Entrance weir E2	0	depth (≥ 8')	Average for week =	12.5
Entrance weir E3	0	depth (≥ 8')	Average for week =	12.5
Collection channel velocity	0	1.5 - 4 fps	2.93 fps, 7/30/2020 Range: 3.31 fps FU-2 to 2.15 fps MU-21	
Transportation channel velocity	0	1.5 - 4 fps	2.17 fps, 8/1/2020	
North channel velocity	0	1.5 - 4 fps	2.17 fps, 7/30/2020	
South channel velocity	0	1.5 - 4 fps	2.36 fps, 7/30/2020	
West entrance differential	0	1.0' - 2.0'	Average for week =	1.5
Entrance weir W1	0	depth (≥ 8')	Average for week =	10.5
Entrance weir W2	0	depth (≥ 8')	Average for week =	10.5
Entrance weir W3	0	No criteria		
South entrance differential	0	1.0' - 2.0'	Average for week =	1.5
Entrance weir S1	0	depth (≥ 8')	Average for week =	8.5
Entrance weir S2	0	depth (≥ 8')	Average for week =	8.5
JUVENILE PASSAGE				
Sluiceway operation	0	Units 1, 7, 18	MU8 OOS	
Turbine trashrack drawdown	0	<1.5', biwkly	7/30/2020 checked, all in criteria.	
Spill volume/pattern	0	1 to 8	Spill 40% of total flow.	
Turbine Unit Priority	6	per FPP	All available MUs running; OOC due to forced outages	
Gatewells	0	Weekly	7/30/2020 fish check, adult shad in some wells, some mortality. No salmon present.	

OTHER ISSUES:

Fishway Operations

North and east fish ladders in full operation.

Spillway open 40% for juvenile passage with Fish Passage Plan pattern

Line 3 (MU7) OOS 7/20-7/21, RTS 7/22

Live shad and sub/yearling salmon observed in gatewells

Unit Outages

Line 1, MU1,2, FU1&2 limited to 188MVA for T1 replacement; 1/28/2021

T3 MU5, MU6 FU1 & FU2 limited to 188MVA through 1/28/2020 for FUBB bus temperature testing

T10 (MU19 & 20) FOOS through 10/28/2021 due to acetylene levels

MU8 OOS 0630 1/21/2020 - 1700 8/13/2020 for Overhaul

T7 OOS 0001 6/22/2020 - 1700 9/24/2020 T7 GSU Replacement & Gnd. Switch Repairs

MU22 FOOS through 1700 10/15/2020 due to excessive vibration.

Maintenance

PUD rake out of service due to power track damage. Planning repair. PUD intake can be raked with mobile crane if needed.

Calibration check; 7/30 East entrance gate out of calibration and within criteria. Referred to TDA for repair.

Five of 6 east fishway collection channel dewatering pumps removed for repair/rehab. On hold due to lack of funding.

East fishway automation replacement underway. PLC box assembly completed. Installation underway.

Spillway assessment (MRER); No FY20 funding. Spillgate 9 trunnion pin included.

MU 21 scrollcase and draft tube dewater scheduled 8/3

Fishway grating midseason inspection scheduled 8/3

Predators

USDA hazing concluded 7/31.

Green laser use for piscivorous bird hazing testing on hold. Potential safety concerns being addressed.

Research/Construction/Contractors

PSMFC concluded juvenile sampling at PUD 7/31

Four Peaks fish counting ongoing.

CRITFC continues lamprey trapping at east count station, lamprey numbers slowed w/ 45 captured for the week w/ 443 total YTD

PITAGS north and east fishladder data collection at count stations continues.

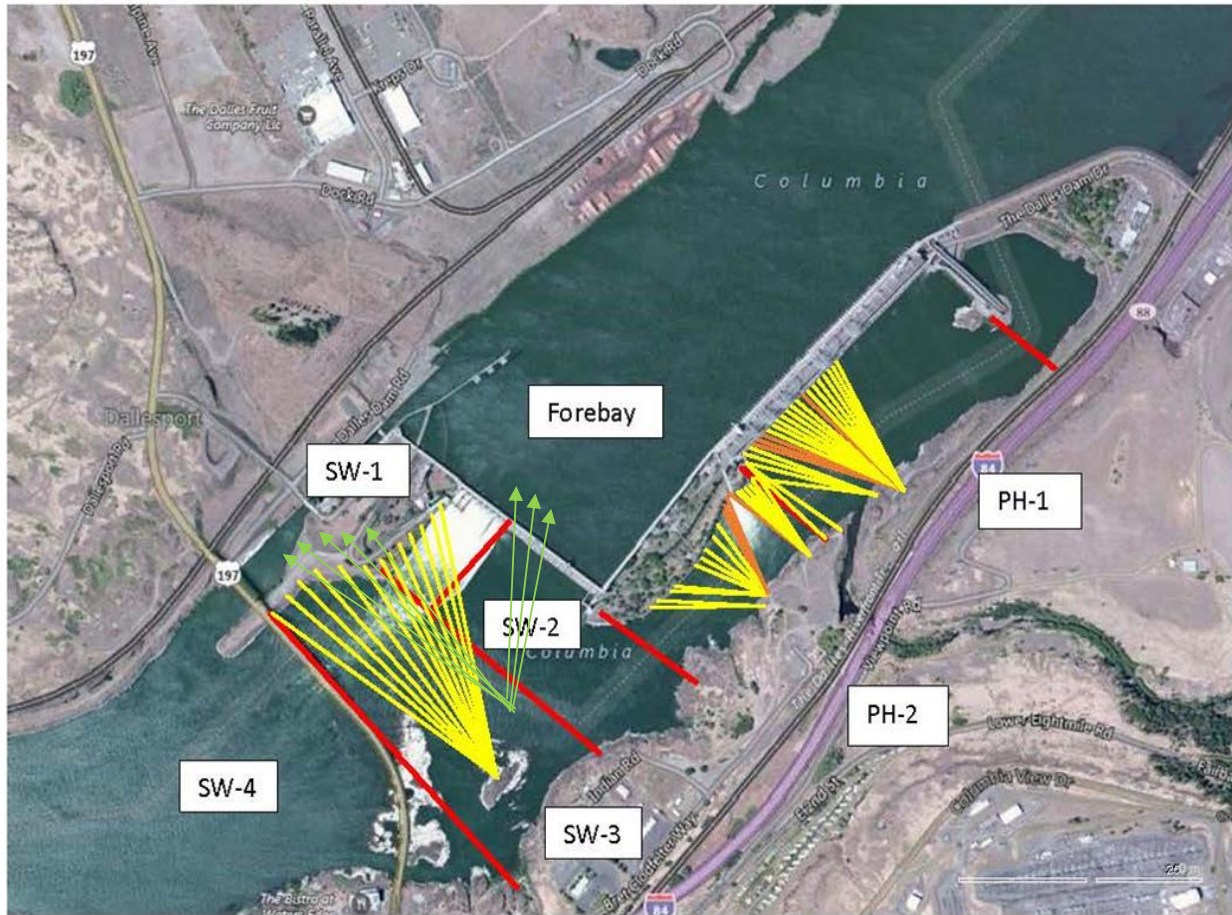
Pikeminnow dam angling 55 NPM this week-897 NPM YTD. **All invasive bass/walleye by-catch release continues per states gamefish requirements.**

Fish unit breaker replacement installed and in operation. Calculation issue needed for completion.

Fish unit rehab - Phase 1A. Planning operation scenario with AWS backup water supply during construction. Effort underway to finish report this year.

Approved by: Mike Colesar, Operation Project Manager, The Dalles Dam

Avian Lines and laser deterrent zones



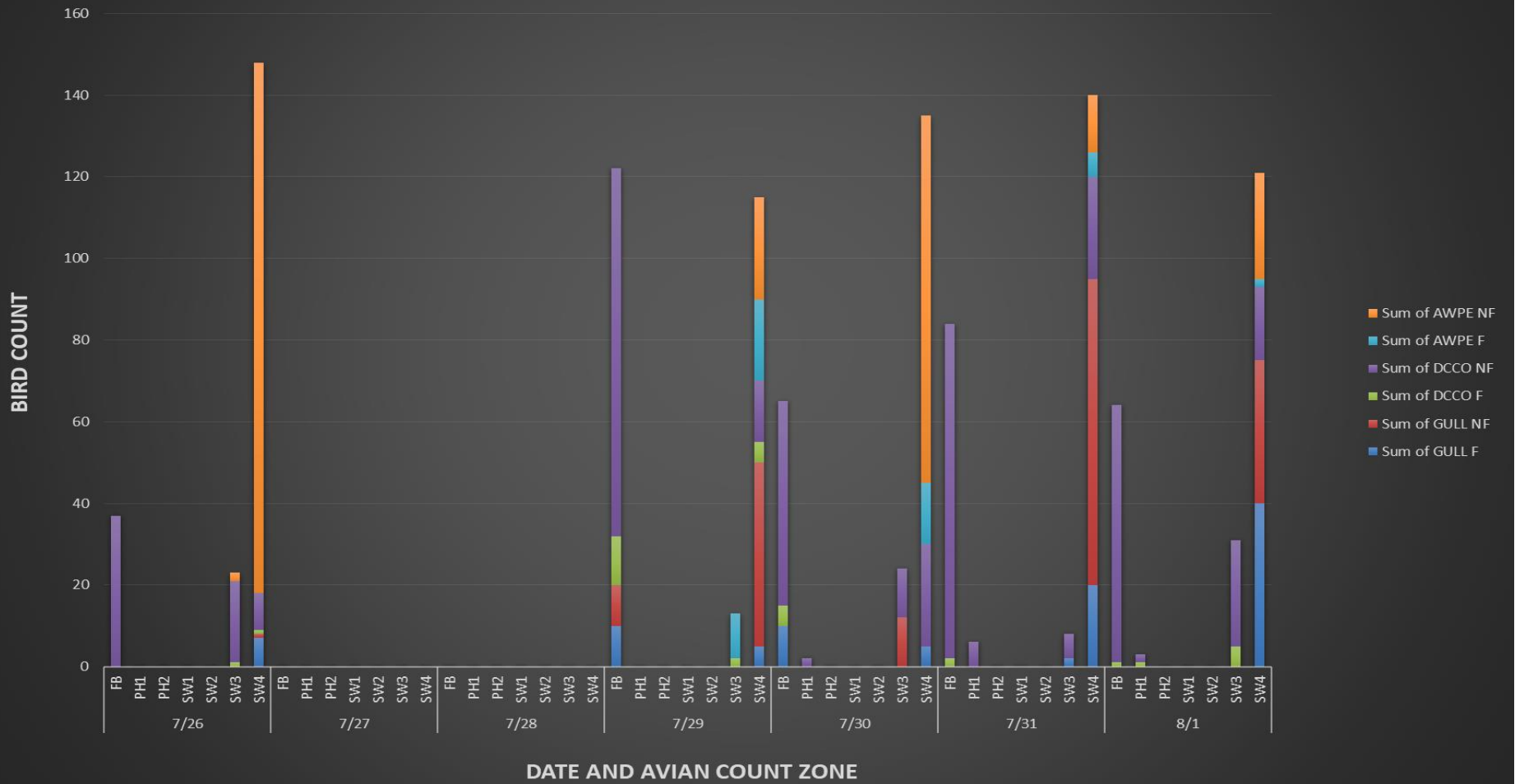
Red lines = avian zones

Yellow lines = current wires

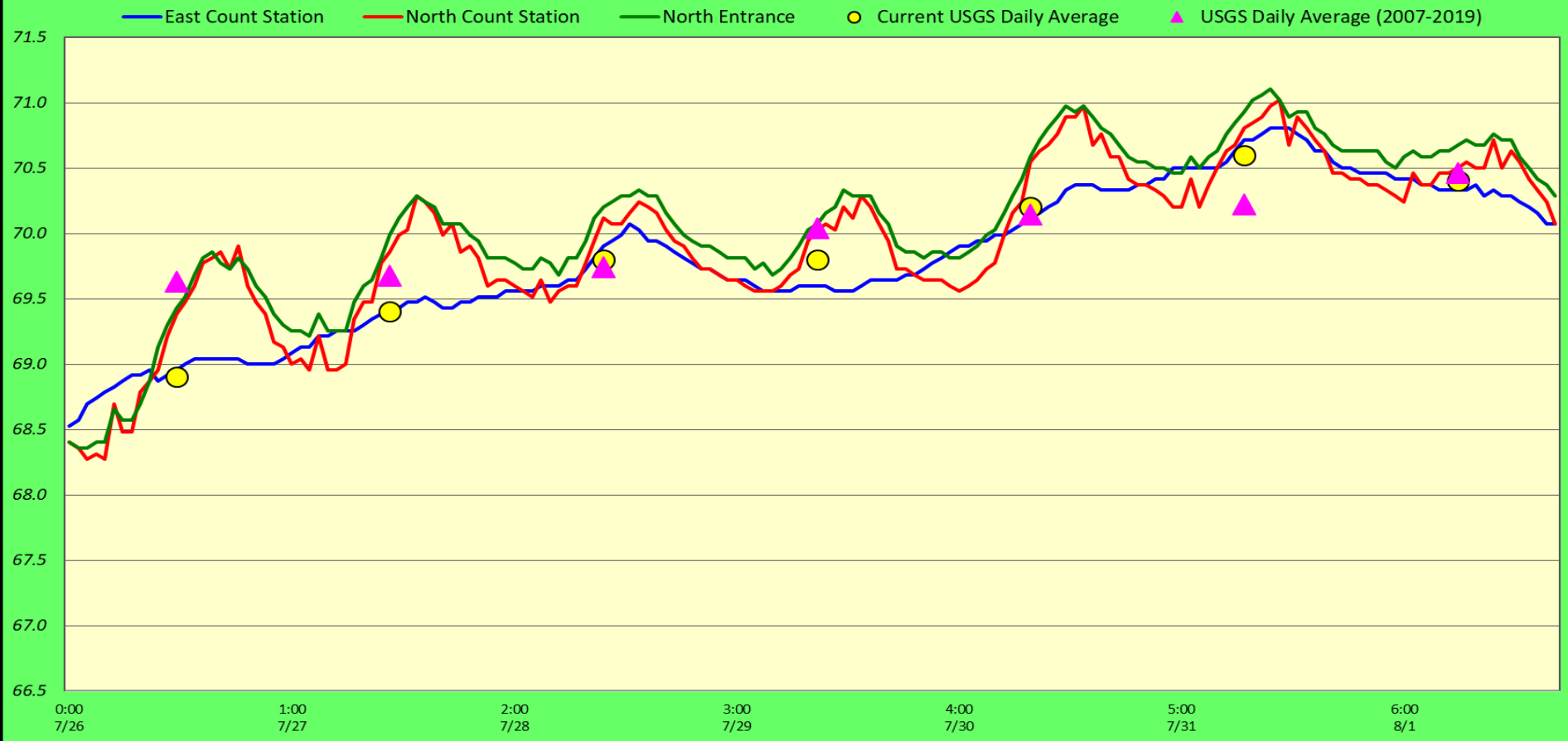
Orange lines = down or missing wires

Bird Activity by Zone 7/26 - 8/1

F = foraging, NF = idle



Adult Fish Ladders-River Temperatures



	Secchi:		°F	USGS July
7/26	5.0	Sun	68.9	
7/27	5.0	Mon	69.4	
7/28	5.0	Tue	69.8	
7/29	5.0	Wed	69.8	
7/30	5.0	Thurs	70.2	
7/31	5.0	Fri	70.6	
8/1	5.0	Sat	70.4	
		AVG	69.9	

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

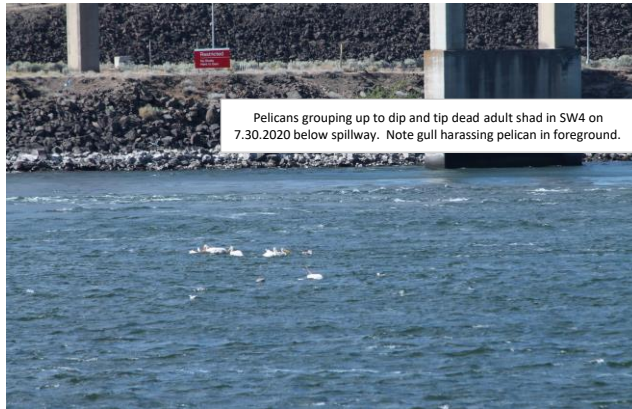
SCADA INSPECTION
out of criteria

Date:	North Ladder		East Ladder											
	Differential	N1 Depth	East Entrance					West Entrance				South Entrance		
			Differential	E1 Depth	E2 Depth	E3 Depth	JP 6	Differential	W1	W2	W3	Differential	S1	S2
7/26			1.5	6.9	12.4	12.4	10.9	1.3	11.1	11.1	-2.2	1.4	8.6	8.6
	1.3	9.7	1.4	7.0	12.5	12.5	10.8	1.3	10.9	10.9	-2.3	1.5	8.5	8.5
	1.3	10.9	1.6	7.1	12.5	12.5	11.1	1.5	10.5	10.5	-2.0	1.5	8.6	8.6
7/27			1.5	2.9	12.5	12.5	9.9	1.7	9.9	9.9	-3.1	1.5	8.3	8.3
	1.2	9.8	1.3	6.9	12.4	12.4	10.3	1.4	10.4	10.4	-2.7	1.5	8.5	8.5
	1.3	9.7	1.5	2.9	12.5	12.5	10.5	1.5	10.5	10.5	-2.6	1.6	8.3	8.3
7/28			1.4	3.0	12.6	12.6	10.1	1.4	10.4	10.4	-2.8	1.5	8.4	8.4
	1.2	9.8	1.4	2.9	12.5	12.5	9.8	1.4	10.6	10.6	-3.1	1.4	8.4	8.4
	1.3	9.7	1.5	3.0	12.6	12.5	10.5	1.5	10.5	10.4	-2.7	1.6	8.3	8.3
7/29			1.4	3.0	12.6	12.6	10.1	1.4	10.7	10.7	-2.9	1.5	8.3	8.4
	1.3	9.8	1.5	3.1	12.6	12.5	10.7	1.6	10.5	10.5	-2.6	1.6	8.3	8.2
	1.3	9.9	1.7	5.1	12.5	12.6	11.2	1.6	10.4	10.4	-2.0	1.5	8.8	8.8
7/30			1.4	4.9	12.4	12.5	10.4	1.4	10.4	10.4	-2.6	1.5	8.5	8.6
	1.2	9.8	1.5	4.6	12.5	12.6	10.5	1.6	10.6	10.6	-2.6	1.4	8.7	8.6
	1.3	9.9	1.7	5.0	12.5	12.5	12.5	1.6	10.5	10.5	-1.0	1.6	8.5	8.6
7/31			1.2	8.4	12.5	12.4	10.7	1.3	11.1	11.1	-2.4	1.4	8.6	8.5
	1.2	9.9	1.4	6.9	12.4	12.4	10.4	1.5	10.4	10.4	-2.7	1.4	8.7	8.7
	1.3	9.8	1.4	6.9	12.4	12.4	10.8	1.5	10.3	10.3	-2.4	1.4	8.5	8.5
8/1			1.3	7.0	12.5	12.5	10.8	1.5	10.4	10.4	-2.5	1.5	8.6	8.5
	1.2	9.8	1.4	6.5	12.4	12.4	10.7	1.5	10.6	10.6	-2.5	1.4	8.7	8.6
	1.2	9.9	1.3	6.1	12.6	12.4	11.2	1.5	10.4	10.4	-2.3	1.5	8.5	8.6
AVG:	1.2	9.9	1.4	5.2	12.5	12.5	10.7	1.5	10.5	10.5	-2.5	1.5	8.5	8.5

Fishways are inspected once daily plus one SCADA inspection.



North Exit and PUD intake trash racks lost crane/raking capabilities
Alternatives being investigated as repairs may be a while



Pelicans grouping up to dip and tip dead adult shad in SW4 on 7.30.2020 below spillway. Note gull harassing pelican in foreground.



Pelicans and cormorants sharing loafing rock in SW4 7.30.2020