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June 13, 2022

Washington State Department of Ecology
Northwest Regional Office
15700 Dayton Avenue North
Shoreline, Washington 98133

Attention: Monika Kannadaguli

Subject: Noncompliance Notification (June 3, 2022)
Puget Sound Energy's
Lower Baker Dam Seepage Reduction Project
WAR310649
GEI File No. 0186-899-05

This report is being provided as required by the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit (WAR-310649), Section S5.F, regarding events of noncompliance with the permit. This report documents a noncompliance event with two discharge locations that occurred on June 3, 2022.

DESCRIPTION OF INCIDENT

Puget Sound Energy (PSE) and their contractors are currently undergoing construction at and near the Lower Baker Dam. Temporary erosion and sedimentation control (TESC) best management practices (BMPs) include silt fences along most of the site's construction limits along the shoreline of Lake Shannon to prevent construction stormwater runoff discharge to the lake.

On June 3, 2022, during a weekly Certified Erosion and Sediment Control Lead (CESCL) site inspection during a rainfall event, the CESCL observed discharge of turbid stormwater runoff into Lake Shannon at two locations: a barge ramp (BaR-1) and an unused boat ramp (BR-1) just south of the Floating Surface Collector dock (Figure 1).

Barge Ramp

The barge ramp is located at Lat.: 48.548708 N, Long.: -121.740023 W. The ramp is situated at the base of the slope/left bank of Lake Shannon. A stabilized footpath covered by wood bark and chips allows access to the ramp down the slope between the construction access road and lake edge (Figure 2). Silt fencing had been installed on either side of the footpath leading down to the ramp, with a break in the silt fence in the immediate stormwater runoff pathway to allow for foot path traffic.

During the June 3rd rain event, the CESCL observed that a small stormwater conveyance rill with turbid runoff from the construction access road had appeared to the north of the footpath. The water flowed underneath the installed silt fence and the CESCL observed turbid water discharging into Lake Shannon (BaR-1 on Figure 2). A turbidity measurement exceeded the upper measuring limit of the turbidity meter (i.e., exceeded 1,000 nephelometric turbidity units [NTUs]); therefore, the turbidity of the discharge was greater than the permitted upper benchmark of 250 NTUs. To address this turbid runoff, a shallow and narrow hand-dug ditch was created in the construction access road to divert the runoff away from the area and into an area covered with wood mulch for infiltration. Additionally, silt fence previously installed near BaR-1 where stormwater had been observed to flow beneath was reinstalled properly to prevent water from flowing beneath and toward Lake Shannon.

Figure 2. BaR-1 on June 3, 2022; foot path to barge ramp

By diverting runoff using the hand-dug ditch, the turbid runoff entering Lake Shannon was stopped in less than 30 minutes after its discovery. No follow up turbidity measurements were taken at BaR-1 because the discharge was stopped. Documentation of BMP installation will be recorded as markups to the Stormwater Pollution Prevention Plan (SWPPP) and TESC Plan and into the CESCL inspection checklist(s), all of which are maintained in the site logbook. The markups to the TESC Plan are attached.

Boat Ramp

The used boat ramp is located at La.t: 48.549486 N, Long.: -121.740087 W, just outside of the northern end of the project construction limits (Figure 1). The boat ramp is made up of soil and crushed rock and the surface is stabilized with additional gravel. The ramp extends from the construction access road at the top of an intermediate slope above Lake Shannon and down toward the lake. The shoreline edge of the boat ramp changes with fluctuating levels of the lake. The boat ramp has not been used in recent months for construction.

During the June 3rd rain event, the CESCL observed a small turbid plume in Lake Shannon at the base of the boat ramp (Figure 3). After tracking the source of the turbid discharge, it was determined that stormwater run-on from the construction access road at the top of the intermediate slope had a turbidity measurement exceeding the upper measuring limit of the turbidity meter (i.e., 1,000 NTUs). To address this turbid runoff, the contractor placed a straw wattle across the width along the top of the boat ramp on June 6 (Figure 4), when they returned to work after the weekend. Additionally, a shallow and narrow ditch was hand-dug within the construction roadway leading toward the boat ramp to divert stormwater back toward the construction site (Figure 5).

Figure 3. BR-1 on June 3, 2022; boat ramp

Figure 4. BR-1 on June 6, 2022; boat ramp with straw wattles installed across the width of the top of the ramp.

The BR-1 location was monitored daily from June 6 through 8 by PSE's CESCL. No discharge was observed at BR-1. However, the CESCL measured turbidity at BR-1 on June 9 during a rain event. The turbidity was 826 NTUs and turbid runoff from the construction access road was observed flowing through the gravel beneath the wattle and down the boat ramp to the lake.

The contractor will install a floating silt curtain around the boat ramp during the week of June 13. Documentation of BMP installation will be recorded as markups to the SWPPP and TESC Plan and into the CESCL inspection checklist(s), all of which are maintained in the site logbook. The markups to the TESC Plan are attached to this noncompliance notification.

Figure 5. BR-1 on June 6, 2022; construction road leading to boat ramp; hand-dug ditch installed in the construction access road to divert stormwater back onto the construction site.

Please call Roger Chang at 253.335.8435 if you have questions about this noncompliant event.

Sincerely,
GeoEngineers, Inc.

Roger Chang, CESCL
Environmental Scientist

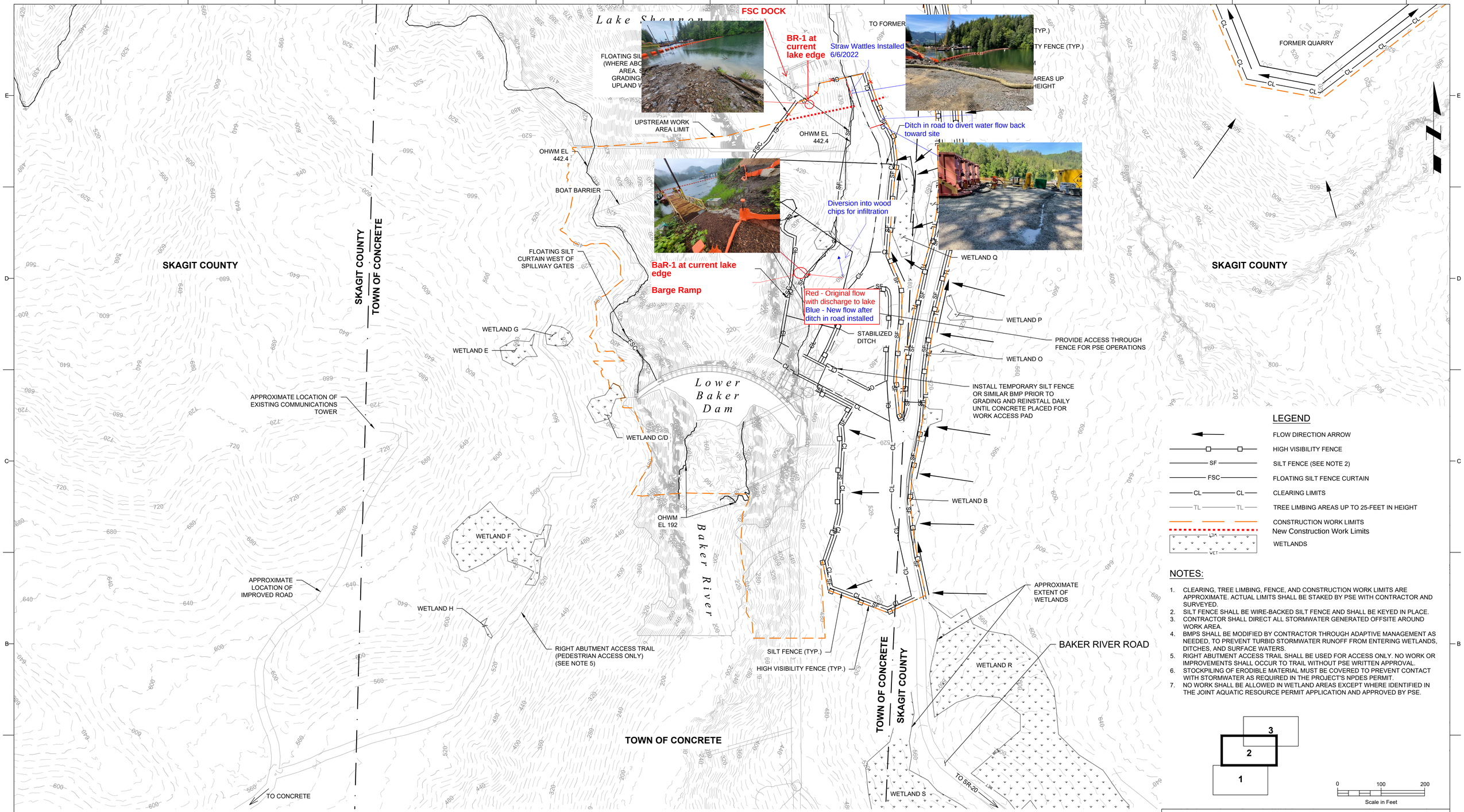
Lisa J. Bona, LG, CESCL
Associate Geologist

RC:LJB:leh

Attachments:
Figure 1
TESC Plan

One copy submitted electronically


FSC DOCK
Boat Ramp
BR-1
Barge Ramp
BaR-1
Lower Baker Dam
Baker River Rd
Legend
June 3 Monitoring Locations
Lower Baker Dam
Notes:
BR-1 is outside of the project limits, but was subsequently protected with an upgradient straw wattle
BaR-1 was immediately rerouted for infiltration in the upland area when discovered
Project Work Limits
Lower Baker Dam Seepage Reduction Project
Town of Concrete, Washington
WAR310649
June 3, 2022 Non-compliant Incident
Figure 1 - Discharge Locations
N
200 ft
Google Earth



LEGEND

- FLOW DIRECTION ARROW
- HIGH VISIBILITY FENCE
- SF — SILT FENCE (SEE NOTE 2)
- FSC — FLOATING SILT FENCE CURTAIN
- CL — CL — CLEARING LIMITS
- TL — TL — TREE LIMBING AREAS UP TO 25-FEET IN HEIGHT
- CONSTRUCTION WORK LIMITS
- New Construction Work Limits
- WETLANDS

NOTES:

1. CLEARING, TREE LIMBING, FENCE, AND CONSTRUCTION WORK LIMITS ARE APPROXIMATE. ACTUAL LIMITS SHALL BE STAKED BY PSE WITH CONTRACTOR AND SURVEYED.
2. SILT FENCE SHALL BE WIRE-BACKED SILT FENCE AND SHALL BE KEYED IN PLACE.
3. CONTRACTOR SHALL DIRECT ALL STORMWATER GENERATED OFFSITE AROUND WORK AREA.
4. BMPS SHALL BE MODIFIED BY CONTRACTOR THROUGH ADAPTIVE MANAGEMENT AS NEEDED, TO PREVENT TURBID STORMWATER RUNOFF FROM ENTERING WETLANDS, DITCHES, AND SURFACE WATERS.
5. RIGHT ABUTMENT ACCESS TRAIL SHALL BE USED FOR ACCESS ONLY. NO WORK OR IMPROVEMENTS SHALL OCCUR TO TRAIL WITHOUT PSE WRITTEN APPROVAL.
6. STOCKPILING OF ERODIBLE MATERIAL MUST BE COVERED TO PREVENT CONTACT WITH STORMWATER AS REQUIRED IN THE PROJECT'S NPDES PERMIT.
7. NO WORK SHALL BE ALLOWED IN WETLAND AREAS EXCEPT WHERE IDENTIFIED IN THE JOINT AQUATIC RESOURCE PERMIT APPLICATION AND APPROVED BY PSE.

0 100 200
Scale in Feet

NOT FOR CONSTRUCTION

100% DESIGN SUBMITTAL

REVISIONS					
NO	DATE	DESCRIPTION	NO	DATE	DESCRIPTION
	01/29/2021	DRAFT			

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

DRAFT DRAWING - IN PROGRESS

PSE PUGET SOUND ENERGY
POWER GENERATION

APPROVAL		DATE
DRAWN BY	MJM/ NAS/ AWP	01/29/2021
DESIGN BY	SRB	01/29/2021
APPROVED BY		
SCALE: NONE		
CLASS: CLASS		
FILENAME: 21-1-22284-014 TESC.dwg		
FLAT FILE DRAWER:	DWR NO:	

LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

June 3, 2022
Non-compliant Event at Two Locations

DRAWING NO.	SHEET	REV NO
LBK-C-04	8 OF 54	A