



US Army Corps  
of Engineers  
Seattle District

# Public Notice of Application for Permit

US Army Corps of Engineers  
Regulatory Branch  
Post Office Box 3755  
Seattle, WA 98124-3755  
Telephone: (360) 734-3156  
ATTN: Randel Perry,  
Project Manager

**Public Notice Date:** July 2, 2021  
**Expiration Date:** August 1, 2021

**Reference No.:** NWS-2019-241  
**Name:** Puget Sound Energy

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Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) has received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated June 2021. The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA).

NOTE: A public notice was issued on May 13, 2019 for the originally proposed project. The application was withdrawn. This notice is for a revised project.

APPLICANT: Puget Sound Energy  
Attention: Ms. Emily Hagin, PSE Municipal Liaison Manager  
1110 Kentucky Street  
Bellingham, Washington 98225  
Telephone: (360) 319-6424

LOCATION: In Lake Shannon near Concrete, Skagit County, Washington

WORK: Excavate and place fill to conduct hydroelectric dam repairs; fill wetlands for work areas.

PURPOSE: Conduct dam repairs as required by the Federal Energy Regulatory Commission (FERC) to maintain dam integrity and safety.

ADDITIONAL INFORMATION: The proposed work is required by FERC under the provisions of license number 2150. The applicant is proposing to construct a grouted seepage cutoff in the bedrock foundation at an existing hydroelectric dam to reduce seepage and rate of bedrock erosion. The seepage cutoff would be constructed immediately upstream of the dam and would extend into the abutments. Construction would be performed using barges and boats within the reservoir, from platforms suspended from the upstream dam face, from platforms supported on deep foundations bearing on the reservoir bottom and steep slopes immediately above and adjacent to the reservoir, and from the ground surface on the left abutment. A combination of work platforms, wharves, docks, launch ramps, and/or bulkheads would be constructed along the reservoir rim upstream of the left abutment to allow equipment and materials to be loaded onto barges for transport to the upstream dam face. The contractor would be responsible for developing the final design for barge loading facilities. Cranes and equipment working from the barges would be used during construction. Temporary sediment and erosion controls would be used to protect downstream waters.

1) Preparatory work

Across the length of the dam structure, drilling and grouting for the foundation bedrock grouting program would be conducted by equipment working from a temporary work platform upstream of the dam. The temporary work

## **NWS-2019-241, Puget Sound Energy**

platform would be constructed as part of preparatory work for the project and would be attached to the upstream face of the dam.

Existing vegetation on uplands between the edge of the reservoir and the access road to the dam and the FSC support dock would be removed; the areas graded; and quarry spalls and gravel placed to create a firm surface for building and facility/equipment installation, equipment travel, and material storage.

At the right abutment, a concrete block would be constructed to support the temporary work platform and to facilitate grout hole drilling. The block would be located above and below the ordinary high water mark (OHWM) and would be poured in place behind a form made of piles and wood lagging. Impact area waterward of the OHWM associated with the concrete block would be 0.02 of an acre.

The steep sloping debris in front of the intake on the left abutment would be reshaped to create one or more benches. The debris generally consists of silt- to boulder-size material, excavated for the construction of the intake, and construction waste. The construction waste is likely derived from 1920s work to construct the dam, intake, and appurtenances. Silt, deposited after impoundment of the Baker River, may be present on the debris surface. Debris reshaping and benching would involve excavating 20 to 30 vertical feet of the upper part of the debris below the intake. Across the forebay upstream of the dam, large woody debris, such as sunken tree trunks and logs, would be removed from the upper surface of the debris and relocated upstream. Limited regrading of the silty debris across the forebay will be completed to a depth up to 5 feet. The area of excavated material that would be relocated or regraded is approximately 0.4 of an acre at the bottom of the reservoir.

Drilling and grouting in the dam left abutment, and associated operations would be conducted from a concrete work pad constructed along the seepage cutoff alignment. The work pad area is currently cleared or occupied by existing PSE structures and includes areas previously disturbed, benched, and graded during past construction. The area would be graded to remove benching and achieve to a relatively consistent slope prior to construction of the work pad. The concrete work surface would be removed after the project is completed and vegetation would be re-established in areas where vegetation is removed.

The area on the left side of the reservoir upstream of the dam, between the dam and the existing dock for the floating surface collector, will be cleared and graded and fill placed below OHWM to develop access to the reservoir. This reservoir access will include construction of ramps and bulkheads for launching of work barges and moving equipment, personnel, and materials on and off of work barges. Placement of permanent fill for the work area bulkhead would occur in 3.4 acres waterward of OHWM and in 0.04 of an acre of LEM Cat III wetlands (Wetland A).

Prior to bedrock grouting, and to reduce the volume of grout eroded by water flowing through the dam foundation, a seepage seal would be placed over approximately 0.15 of an acre of the reservoir bottom and over exposed rock surfaces within 50 feet of the upstream face of the dam or on steep bedrock slopes at higher elevation in the reservoir. The seal would consist of either geomembrane, geosynthetic clay liner, geosynthetic concrete composite panels, cured-in-place concrete-filled mattresses, or cast-in-place concrete. In addition, one or more of these materials may be placed over the soil and rock debris below the elevation of the exposed bedrock to assist with improving the reservoir bottom surface for installing riser pipes that would be used during bedrock grouting.

If low slump concrete is used, it would be pumped through a tremie pipe to the bottom of the reservoir and placed over and around the locations where water is flowing into the debris and bedrock. To minimize the quantity of cement that is washed from the concrete and mixed with reservoir water, the concrete would contain anti-washout agents and be poured only a few feet above the reservoir bottom.

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### **2) Grouting work**

The seepage cutoff would be constructed by drilling about 250 holes into the bedrock and injecting grout. Constructing the seepage cutoff upstream of the dam would require installing drill casing and riser pipe through over 200 feet of water, drilling through up to 70 feet of soil, rock, and wood debris on the reservoir bottom, drilling and grouting bedrock 100 to 250 feet below the base of the dam, and drilling to up to 450 feet below the ground surface elevation in the abutments. The drill casing and riser pipe will be removed after completion of the grouting program. To reduce the volume of grout that is eroded by water flowing through cracks in the bedrock and transported below the dam, the grout injection rate would be limited and grout that incorporates anti-washout agents would be used. Viscosity of grout injected would be adjusted to control the grout travel distance in the bedrock fractures. Asphaltic and polyurethane grouts would be used on a limited basis to cut off water flow where wide bedrock fractures and high flow result in an inability of the cementitious grout to sufficiently fill and cut off flow through the bedrock fractures.

Drain holes may be drilled into the dam foundation and abutment bedrock downstream of the seepage cutoff after grouting of the downstream line has been completed. These drain holes would be installed only to relieve water pressure below the dam and within foundation bedrock if monitoring of piezometers installed below the dam and in the abutments indicate unacceptable uplift pressures on the dam or rock. The drain holes would not be in communication with fractures that connect to grouting of the upstream or middle grout line holes, thus avoiding entry of grout into the drain holes.

The drain holes would be drilled using equipment based on modular platforms that are positioned in the river below the dam toe, across the toe of the dam structure, and on the abutment rock-benches on the downstream side of the dam on each abutment. The work platforms would be lowered into position by cranes working from the left abutment or barges in the reservoir, or by helicopter. Drill cuttings would be settled from return drill water into tubs at the drill header. Where practical, silt fences, coir logs, or other sediment barrier would be installed downstream of, downslope of, or around the drilling operation to filter fine rock particles from return drill water. Settling out drill cuttings and filtering the return drill water would reduce sediment delivery to the Baker River.

Water for drilling and grout would be obtained from the reservoir. Drilling operation wash water, drill cuttings, and waste grout (grout not injected into the ground and cleaned from hoses and equipment) would connect to a temporary pipeline that transports the drilling water to the process wastewater treatment facility. Process water treatment facilities may be upstream of the left abutment, along Baker River Road near the construction offices, and/or in the former quarry. This water could be discharged to settling ponds constructed for the project, flow through sediment removal equipment (e.g., filter sand, centrifuges, and presses), or a combination of settling ponds and sediment removal equipment. The water would be treated to remove sediment (turbidity) and adjust pH (if needed) prior to being reused in the drilling and grouting process or discharged to Lake Shannon, Everett Creek, or upgradient of Wetlands J, K, and V.

The wetland boundaries shown on the project drawings have not yet been verified by the U.S. Army Corps of Engineers (Corps). If the Corps determines the boundaries of the wetland are substantially inaccurate a new public notice may be published.

**MITIGATION:** All temporarily disturbed areas at the project site would be restored. Restoration would include installation of native plant species as appropriate. To compensate for permanent wetland impacts, the applicant proposes to purchase 0.044 credit from the Skagit Environmental Mitigation Bank in Mount Vernon.

**ENDANGERED SPECIES:** The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or

## **NWS-2019-241, Puget Sound Energy**

endangered or any designated critical habitat. The FERC, as the lead agency for ESA consultation, will consult with the NMFS and/or the USFWS as required under Section 7 of the ESA.

**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area. The FERC, as the lead agency for a determination regarding EFH, will consult with the National Marine Fisheries Services if necessary. .

**CULTURAL RESOURCES:** The FERC, as the lead agency for determining compliance with Section 106 of the National Historic Preservation Act, will consult with the State Historic Preservation Officer and Native American Tribes as appropriate.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

**EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

**SOURCE OF FILL MATERIAL:** The source of the fill material will be on-site materials and clean materials obtained from local sources.

**SECTION 401 (WATER QUALITY CERTIFICATION):** The WA State Department of Ecology (Ecology) issued a Water Quality Certification (WQC) for the Baker River hydroelectric facility on May 10, 2007 (Order No. 2525).

**NOTE:** Ecology has determined that an individual National Pollution Discharge Elimination System (NPDES) Construction Stormwater permit is required to cover the grout curtain construction project. The public will be provided an opportunity to comment on the draft NPDES permit via separate public notice issued by Ecology.

**NWS-2019-241, Puget Sound Energy**

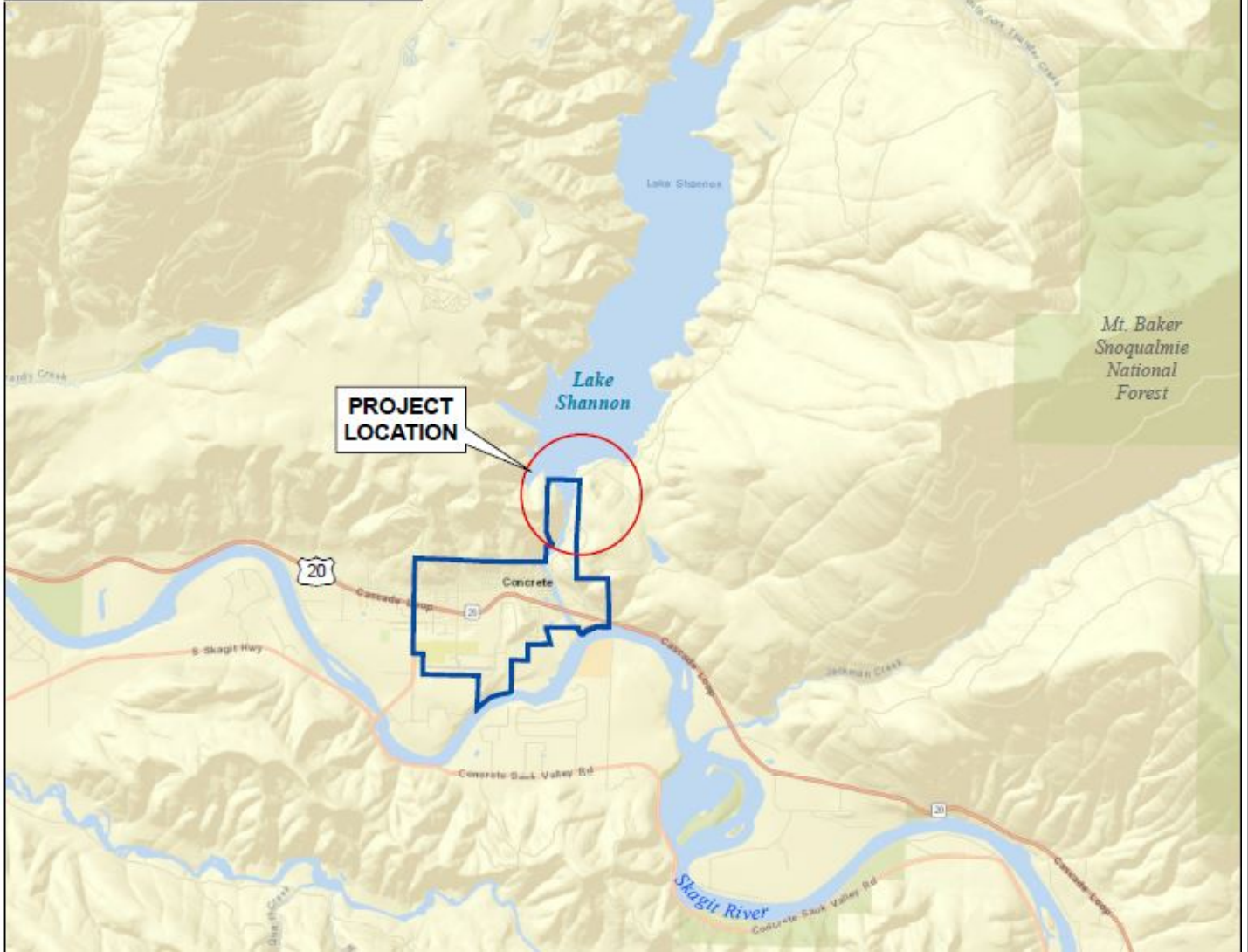
ADDITIONAL EVALUATION: This proposal is the subject of Shorelines Substantial Development Permit application under review by the City of Concrete.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. All e-mail comments should be sent to [randel.j.perry@usace.army.mil](mailto:randel.j.perry@usace.army.mil). Conventional mail comments should be sent U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington, 98124-3755. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number.

All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration. Please include the following name and reference number:

Puget Sound Energy, NWS-2019-241

Encl: Figures (17)



**REFERENCE NO:** NWS-2019-241

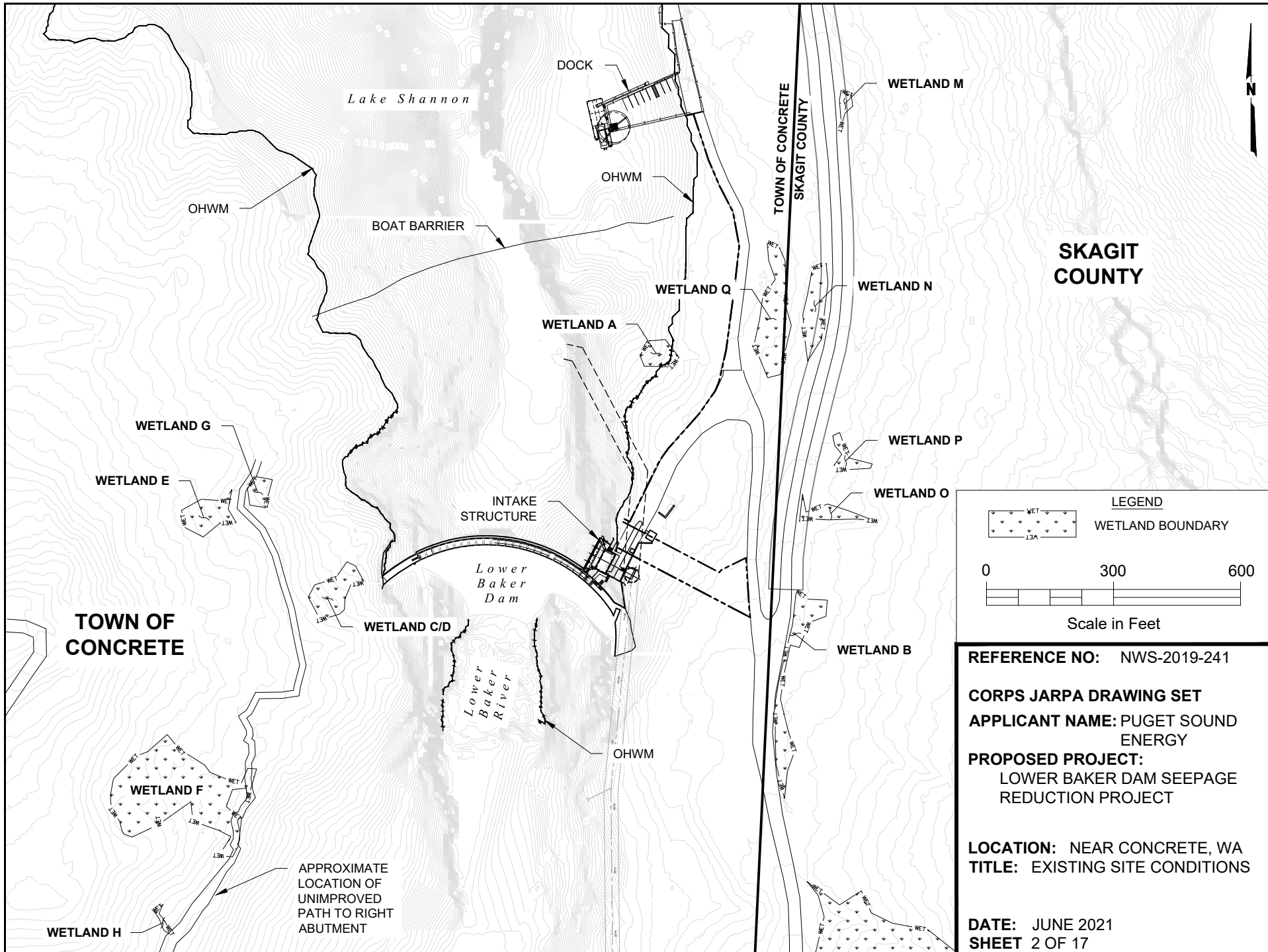
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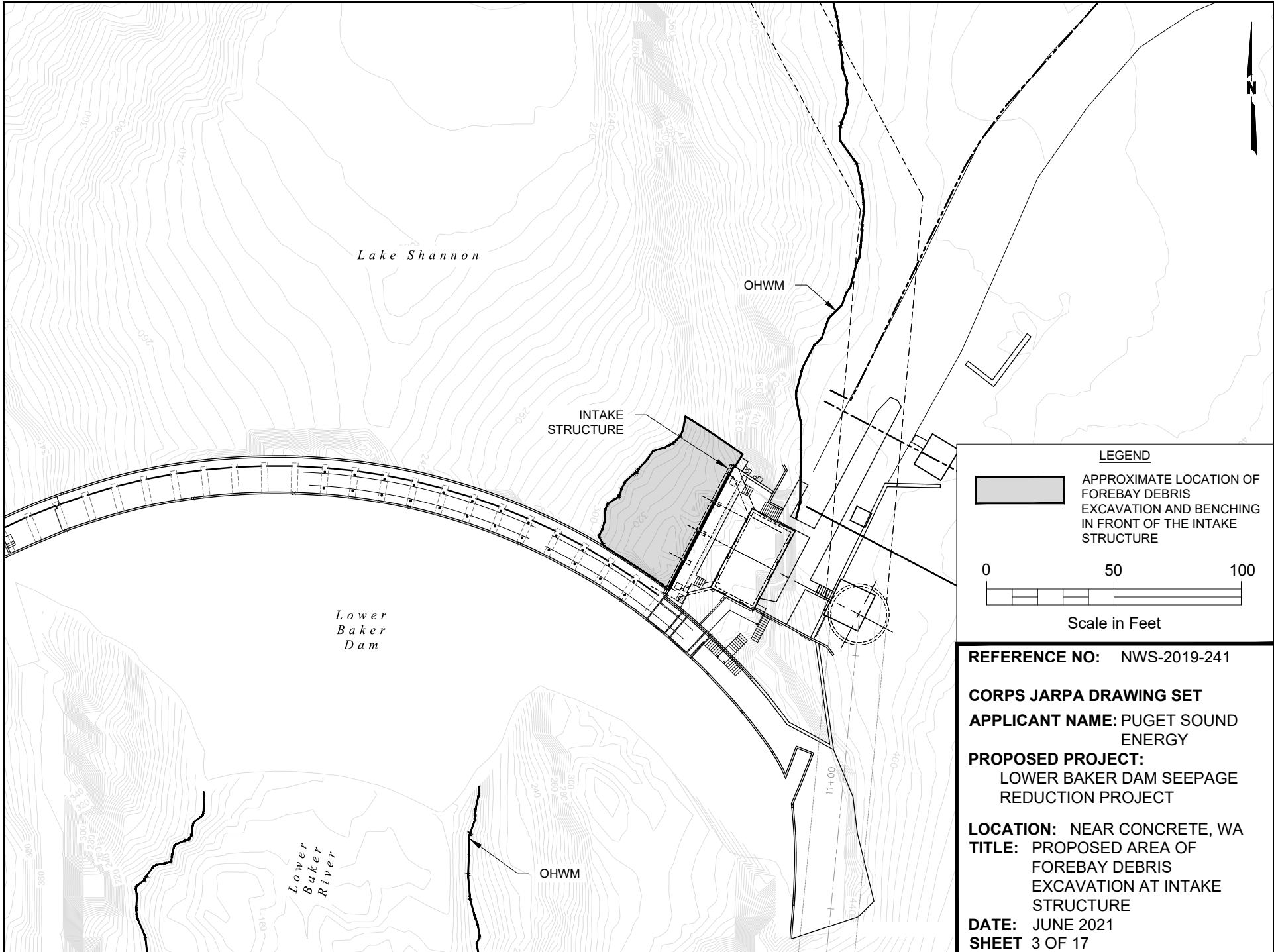
**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:**  
LOWER BAKER DAM SEEPAGE REDUCTION PROJECT


**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** VICINITY MAP

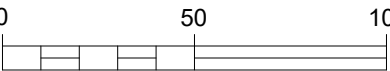
**DATE:** JUNE 2021  
**SHEET** 1 OF 17





**LEGEND**


 APPROXIMATE LOCATION OF FOREBAY DEBRIS EXCAVATION AND BENCHING IN FRONT OF THE INTAKE STRUCTURE

0                      50                      100  
  
 Scale in Feet

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:** LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

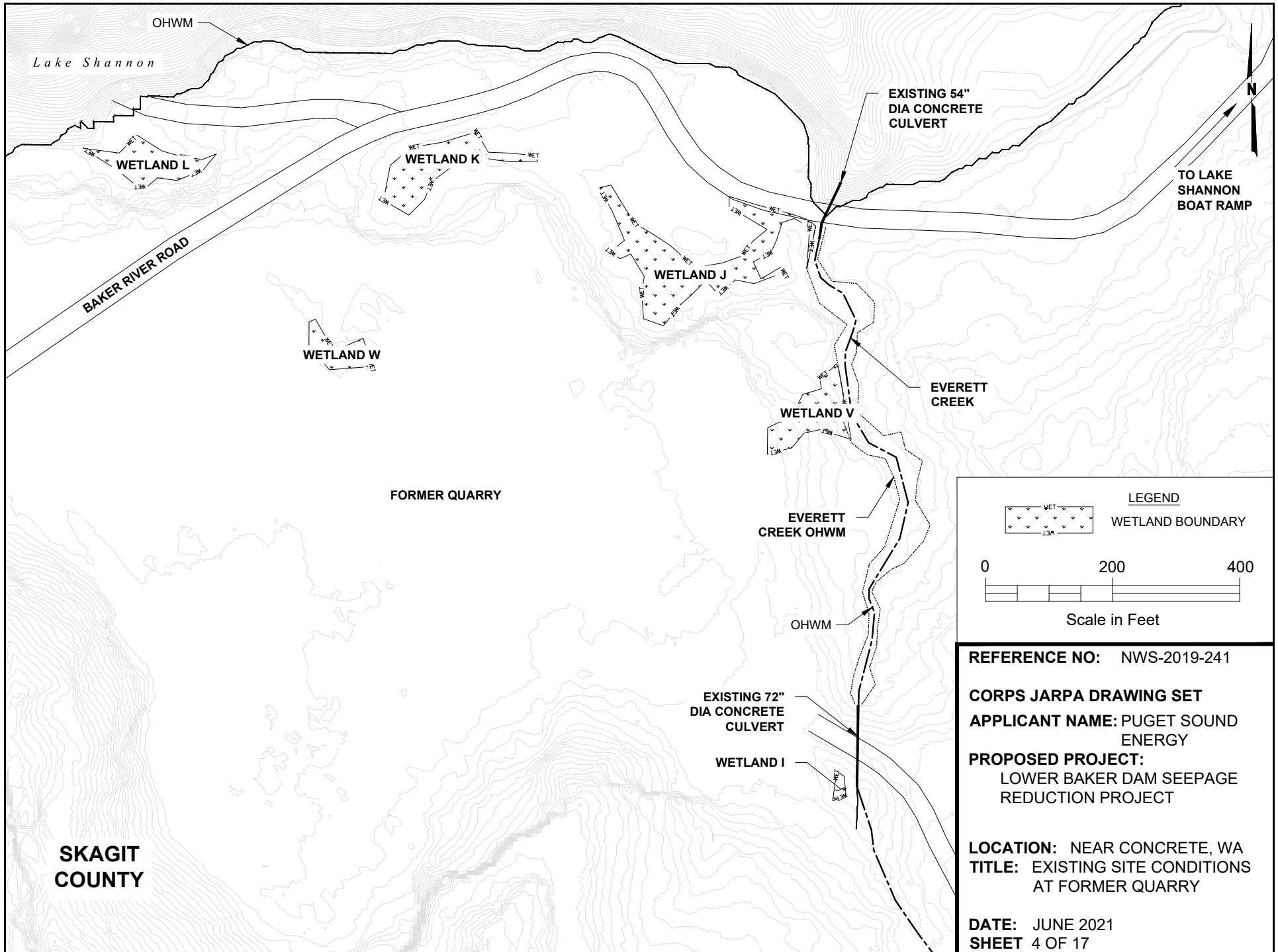
**LOCATION:** NEAR CONCRETE, WA

**TITLE:** PROPOSED AREA OF FOREBAY DEBRIS EXCAVATION AT INTAKE STRUCTURE

**DATE:** JUNE 2021

**SHEET** 3 OF 17





**REFERENCE NO:** NWS-2019-241

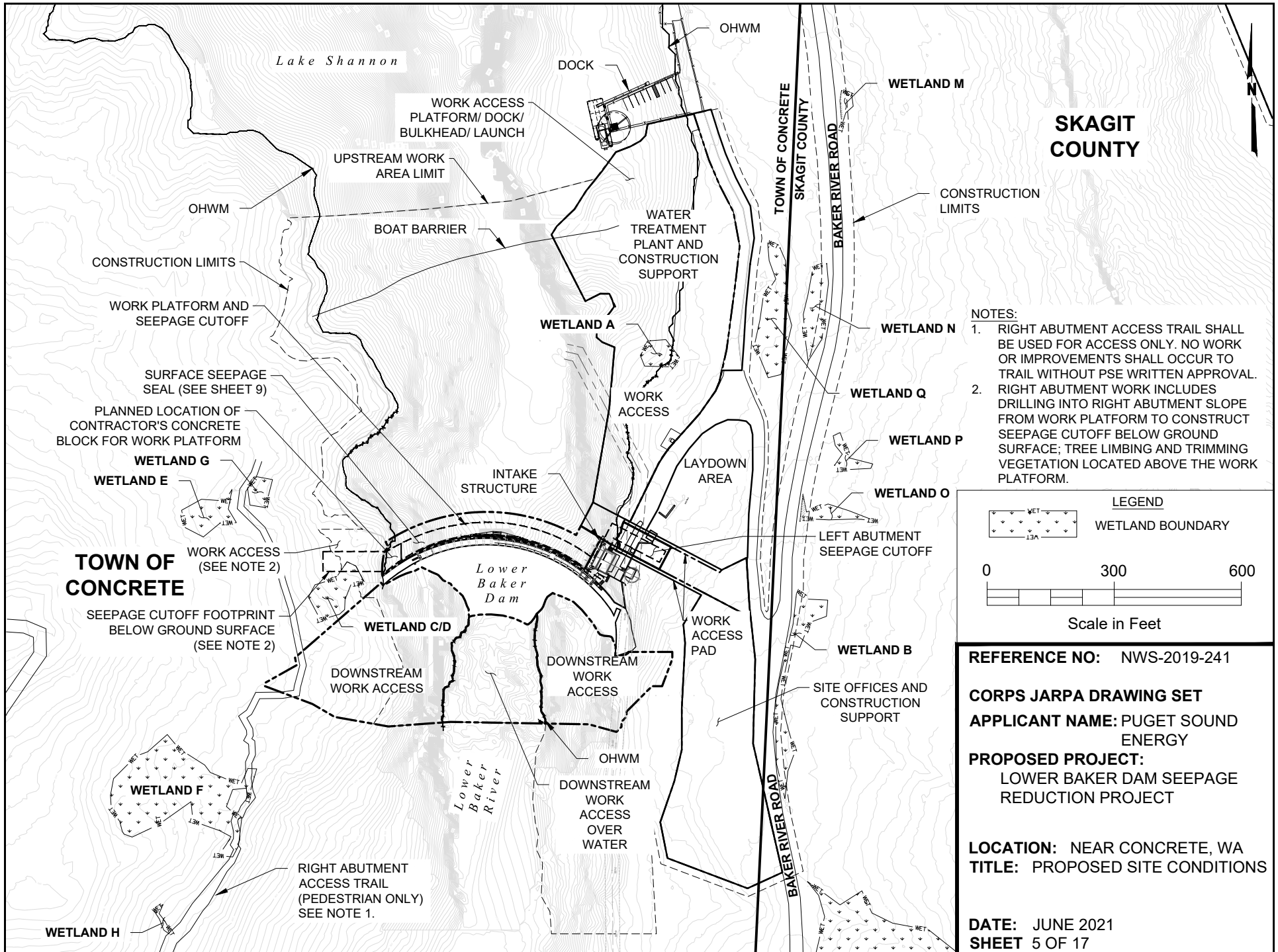
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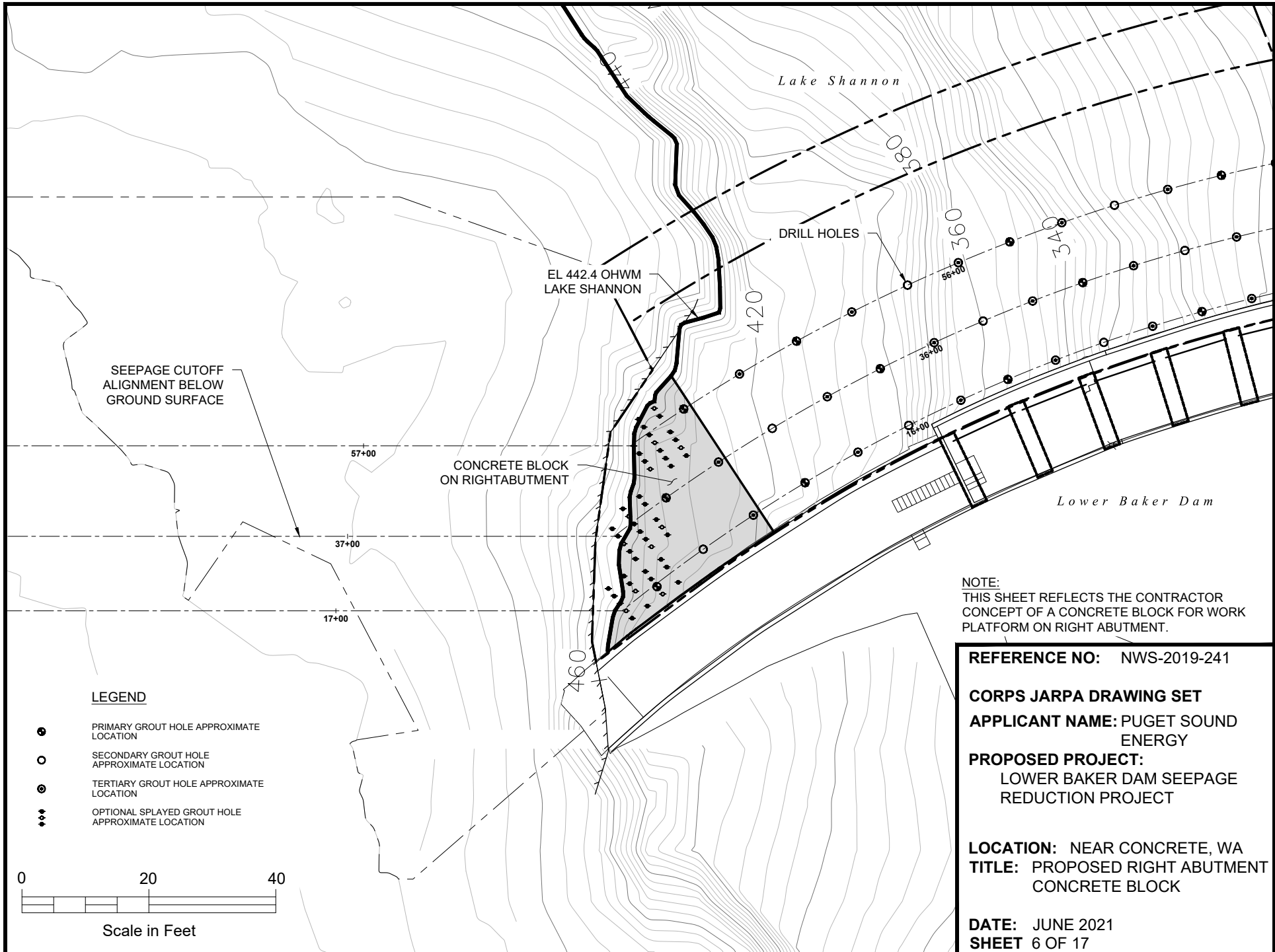
**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:**  
LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** EXISTING SITE CONDITIONS AT FORMER QUARRY

**DATE:** JUNE 2021  
**SHEET** 4 OF 17





NOTE:  
 THIS SHEET REFLECTS THE CONTRACTOR  
 CONCEPT OF A CONCRETE BLOCK FOR WORK  
 PLATFORM ON RIGHT ABUTMENT.

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND  
 ENERGY

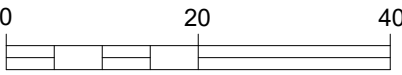
**PROPOSED PROJECT:**  
 LOWER BAKER DAM SEEPAGE  
 REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** PROPOSED RIGHT ABUTMENT  
 CONCRETE BLOCK

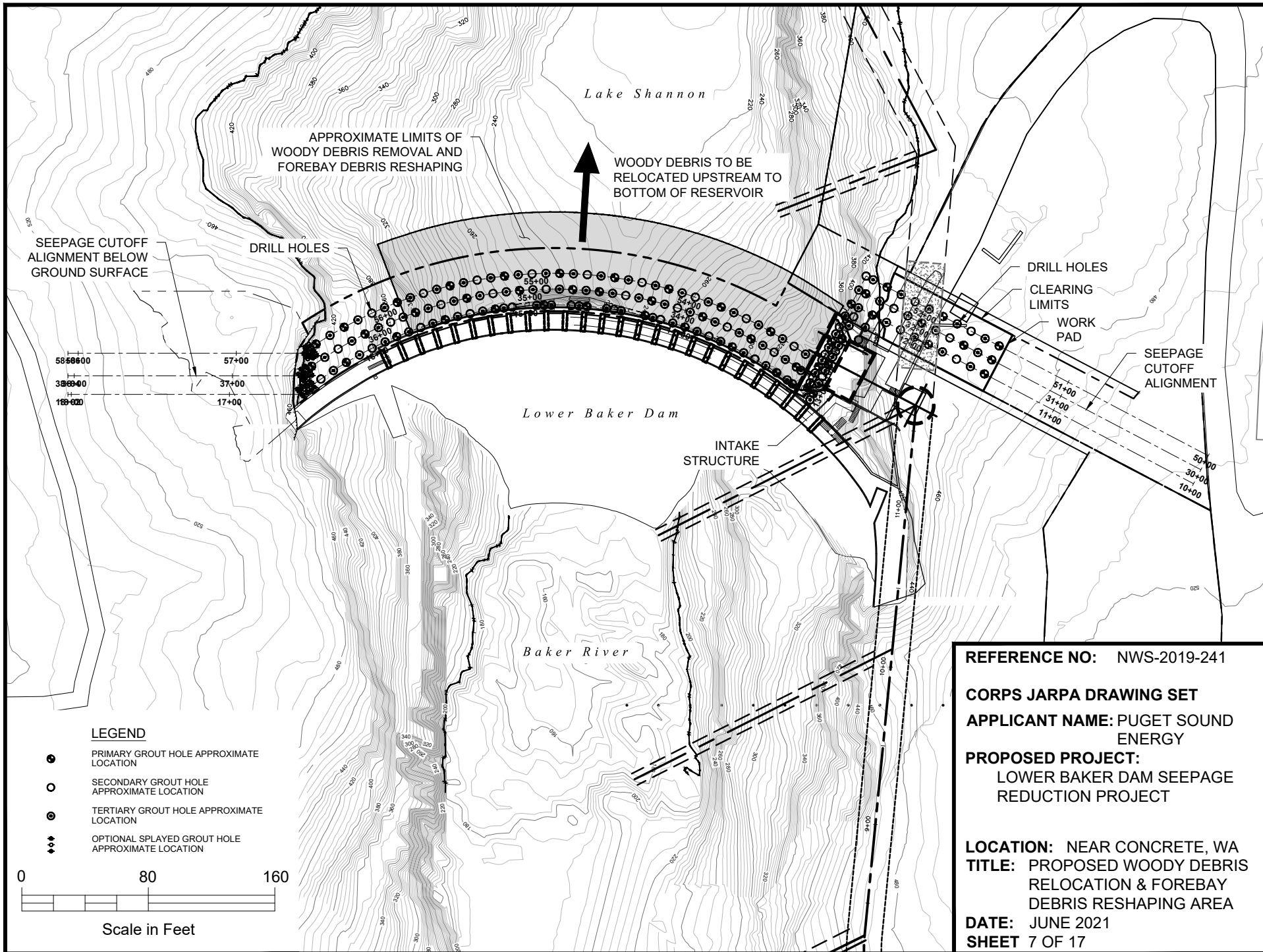
**DATE:** JUNE 2021  
**SHEET** 6 OF 17

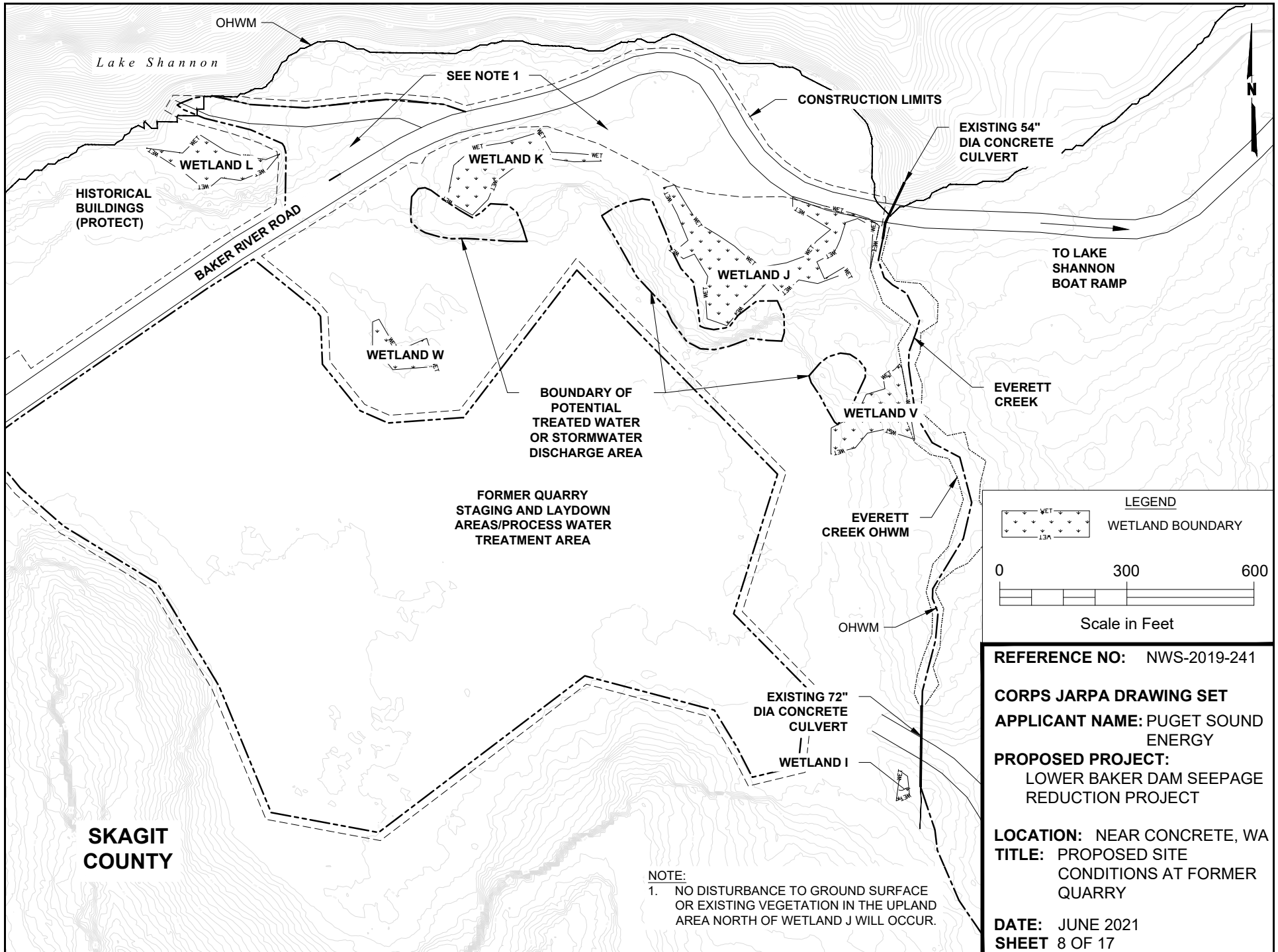
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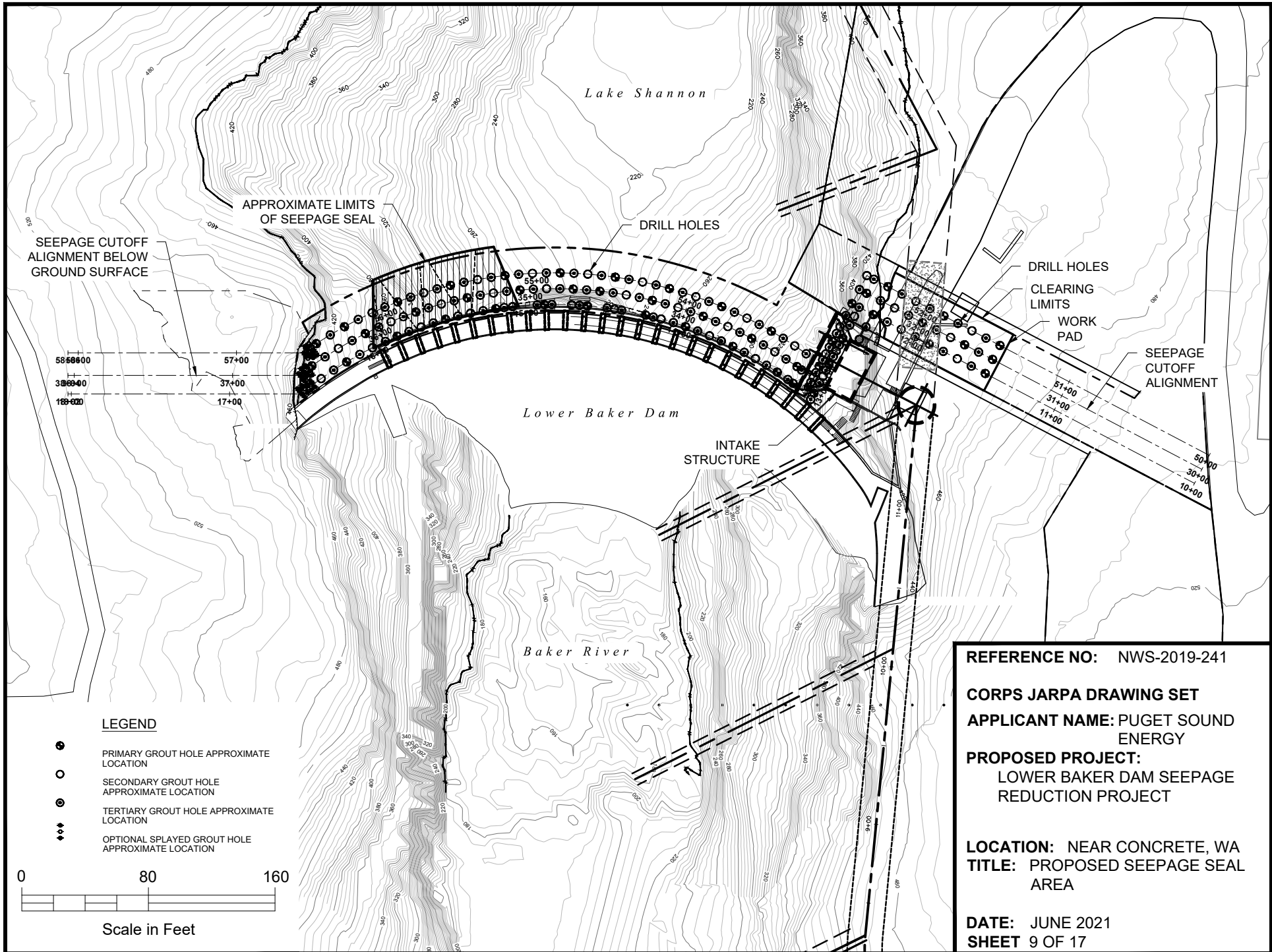
- PRIMARY GROUT HOLE APPROXIMATE LOCATION
- SECONDARY GROUT HOLE APPROXIMATE LOCATION
- ⊙ TERTIARY GROUT HOLE APPROXIMATE LOCATION
- ◆◆◆ OPTIONAL SPLAYED GROUT HOLE APPROXIMATE LOCATION



Scale in Feet







SEEPAGE CUTOFF ALIGNMENT BELOW GROUND SURFACE

APPROXIMATE LIMITS OF SEEPAGE SEAL

DRILL HOLES

DRILL HOLES

CLEARING LIMITS

WORK PAD

SEEPAGE CUTOFF ALIGNMENT

Lower Baker Dam

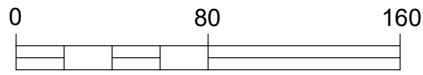
INTAKE STRUCTURE

Baker River

Lake Shannon

**LEGEND**

- PRIMARY GROUT HOLE APPROXIMATE LOCATION
- SECONDARY GROUT HOLE APPROXIMATE LOCATION
- ⊙ TERTIARY GROUT HOLE APPROXIMATE LOCATION
- ⚡ OPTIONAL SPLAYED GROUT HOLE APPROXIMATE LOCATION



Scale in Feet

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

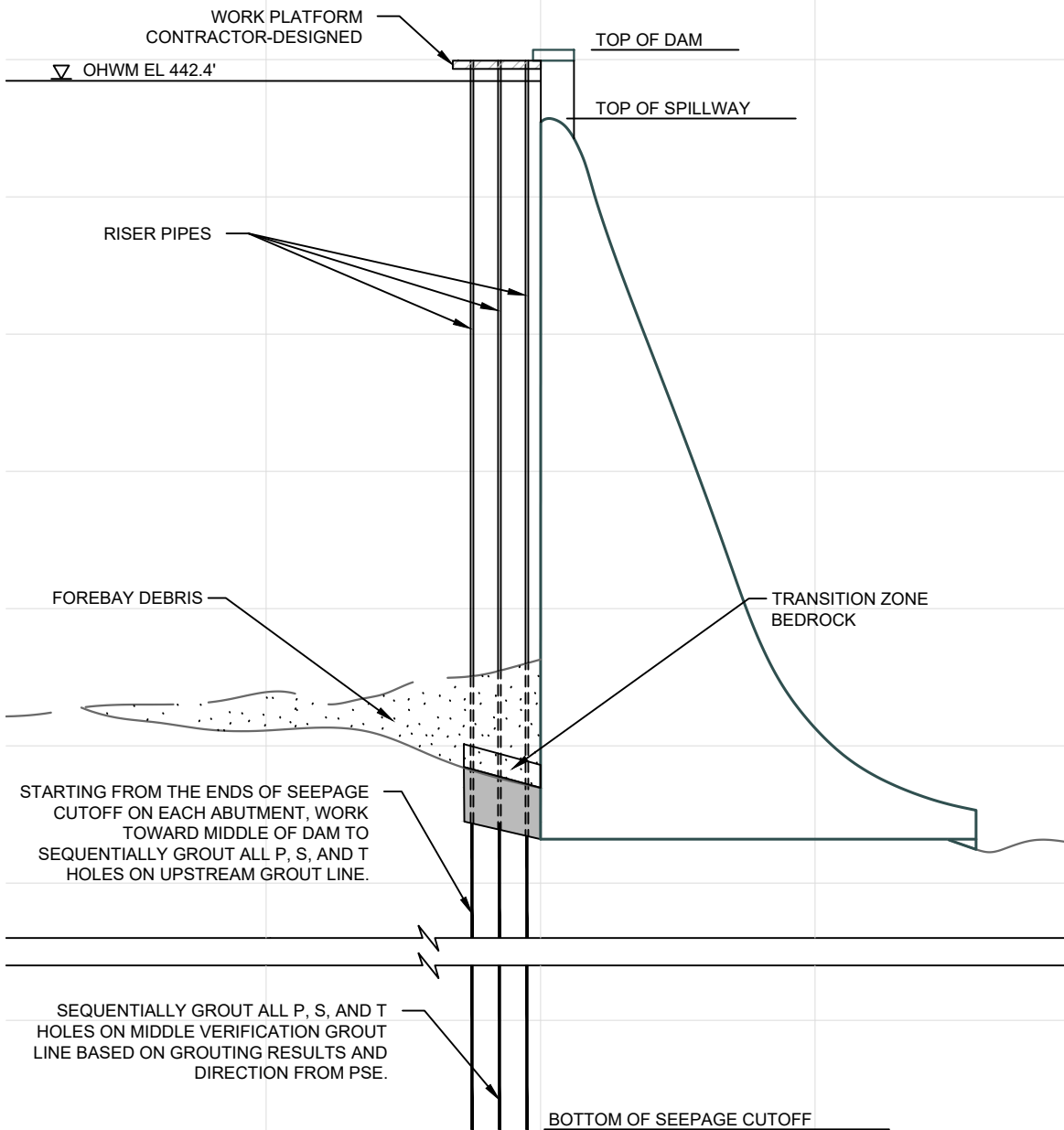
**PROPOSED PROJECT:** LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA

**TITLE:** PROPOSED SEEPAGE SEAL AREA

**DATE:** JUNE 2021

**SHEET** 9 OF 17



**NOTES:**

1. WORK PLATFORM MAY BE SUPPORTED OFF DAM, BE A FLOATING WORK PLATFORM, CONSIST OF BARGES, OR BE ANOTHER SYSTEM. TO BE SELECTED AND DESIGNED BY THE CONTRACTOR. PLATFORM TYPE AND SUPPORT MAY VARY OR CHANGE ALONG THE GROUT CURTAIN LENGTH.
2. DRILL CASING AND RISER PIPE GUIDES MAY BE ATTACHED TO THE DAM, BE CONSTRUCTED/PLACED ON THE RESERVOIR BOTTOM, BE PREFABRICATED, RELY ON PREVIOUSLY INSTALLED CASING/RISER TO AID IN POSITIONING, OR ANOTHER SYSTEM. TO BE SELECTED AND DESIGNED BY THE CONTRACTOR. CASING AND RISER PIPE GUIDE/GUIDE SYSTEM MAY VARY OR CHANGE ALONG THE GROUT CURTAIN LENGTH.

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

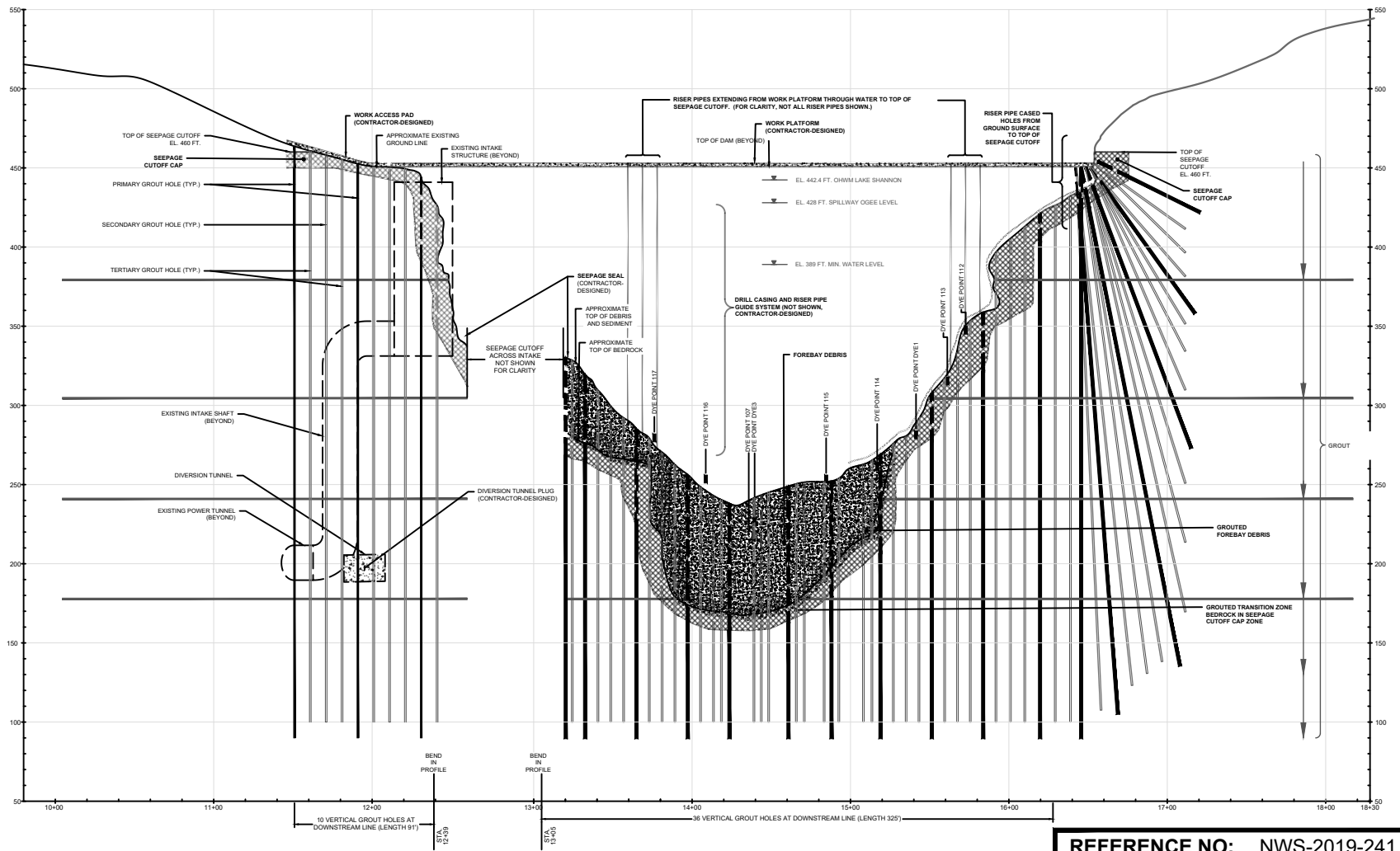
**PROPOSED PROJECT:**  
LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA

**TITLE:** SEEPAGE CUTOFF SECTION

**DATE:** JUNE 2021

**SHEET** 10 OF 17



**SEQUENCE**

- (J) GROUT DOWNSTREAM GROUT LINE.
- (K) GROUT UPSTREAM GROUT LINE.
- (L) GROUT PRIMARY GROUT HOLES ALONG VERIFICATION GROUT LINE TO VERIFY SEEPAGE CUTOFF CONSTRUCTION. GROUT SECONDARY AND TERTIARY GROUT HOLES ALONG VERIFICATION GROUT LINE BASED ON RESULTS OF PRIMARY GROUT HOLES AND DIRECTION FROM PSE.
- (M) BACKFILL AND SEAL ALL GROUT HOLES. REMOVE ALL RISER PIPE/MPSP SYSTEM COMPONENTS FLUSH WITH OR TWO FEET BELOW GROUND SURFACE ON ALL THREE GROUT LINES.

**NOTES**

1. DETAILS OF CONTRACTOR-DESIGNED ELEMENTS ARE NOT SHOWN. THE TOP OF FOREBAY DEBRIS/OVERBURDEN AND BEDROCK SHOWN ARE APPROXIMATE AND SHOWN FOR CONCEPTUAL PURPOSES ONLY.
2. REFER TO DETAILS IN SPECIFICATIONS AND DRAWINGS FOR REQUIREMENTS.
3. THE SEQUENCE OF WORK PRESENTED HERE IS THE GENERAL WORK SEQUENCE TO BE FOLLOWED. ACTUAL WORK SEQUENCE WILL BE BASED ON THE CONTRACTOR'S SUBMITTED WORK PLAN AND AS ACCEPTED BY PSE.

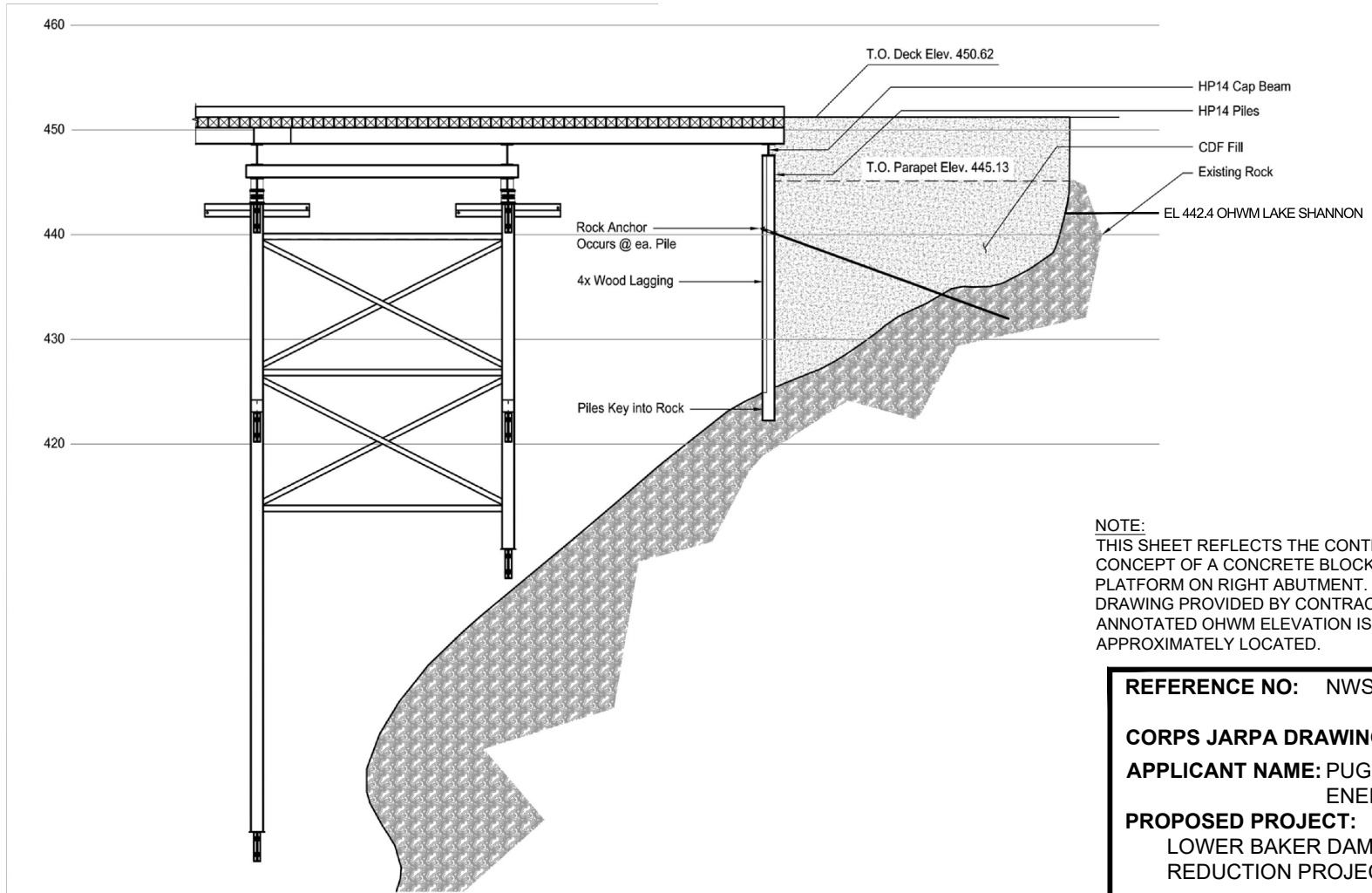
**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**  
**APPLICANT NAME:** PUGET SOUND ENERGY  
**PROPOSED PROJECT:** LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** SEEPAGE CUTOFF PROFILE

**DATE:** JUNE 2021  
**SHEET** 11 OF 17





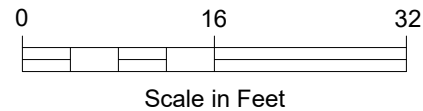
**NOTE:**  
 THIS SHEET REFLECTS THE CONTRACTOR  
 CONCEPT OF A CONCRETE BLOCK FOR WORK  
 PLATFORM ON RIGHT ABUTMENT. ORIGINAL  
 DRAWING PROVIDED BY CONTRACTOR.  
 ANNOTATED OHWM ELEVATION IS  
 APPROXIMATELY LOCATED.

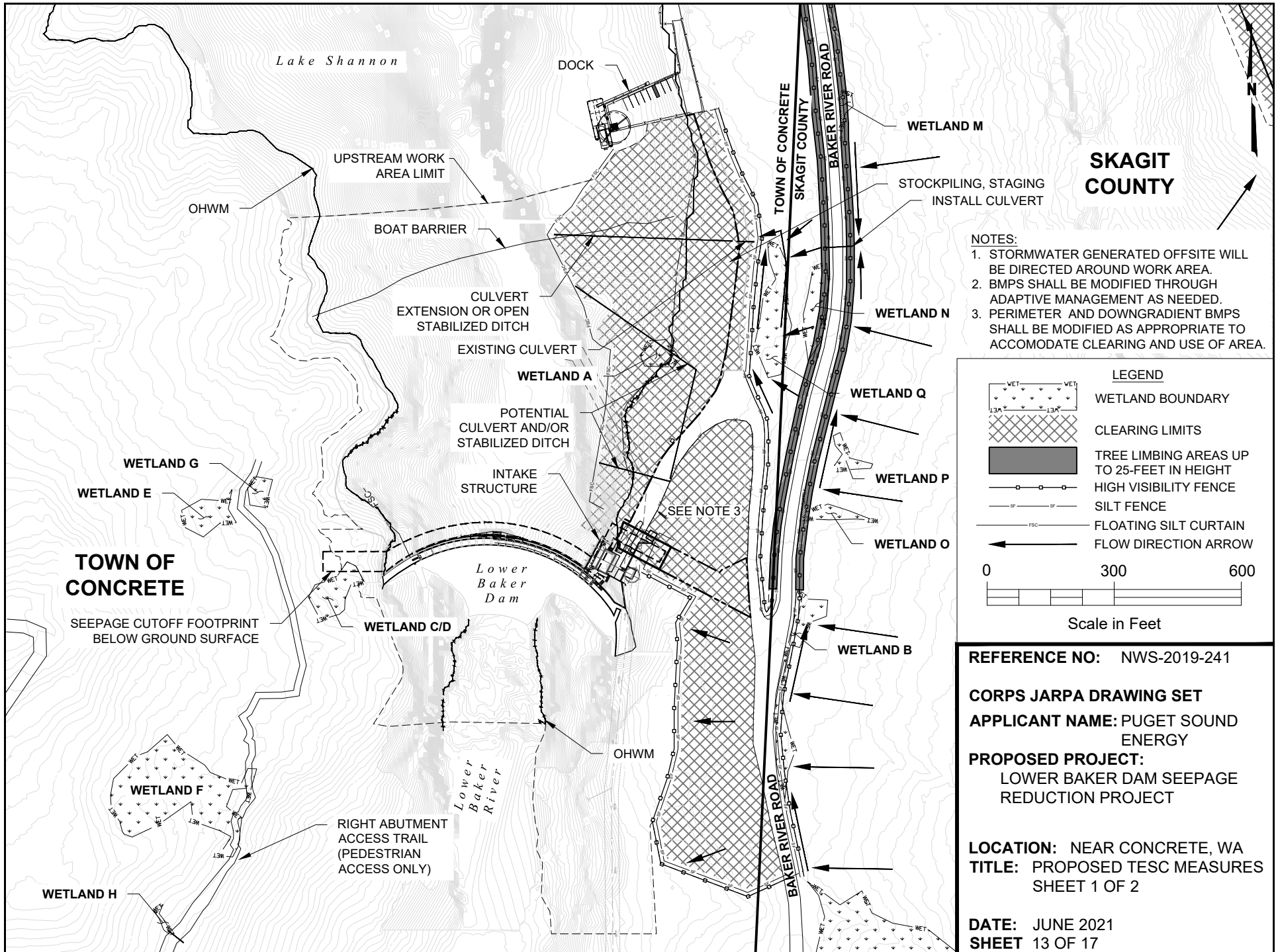
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**CORPS JARPA DRAWING SET**  
**APPLICANT NAME:** PUGET SOUND  
 ENERGY  
**PROPOSED PROJECT:**  
 LOWER BAKER DAM SEEPAGE  
 REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** RIGHT ABUTMENT  
 SECTION

**DATE:** JUNE 2021  
**SHEET** 12 OF 17





**SKAGIT COUNTY**

- NOTES:**
1. STORMWATER GENERATED OFFSITE WILL BE DIRECTED AROUND WORK AREA.
  2. BMPs SHALL BE MODIFIED THROUGH ADAPTIVE MANAGEMENT AS NEEDED.
  3. PERIMETER AND DOWNGRADIENT BMPs SHALL BE MODIFIED AS APPROPRIATE TO ACCOMMODATE CLEARING AND USE OF AREA.

**LEGEND**

- WETLAND BOUNDARY
- CLEARING LIMITS
- TREE LIMBING AREAS UP TO 25-FEET IN HEIGHT
- HIGH VISIBILITY FENCE
- SILT FENCE
- FLOATING SILT CURTAIN
- FLOW DIRECTION ARROW

0 300 600  
Scale in Feet

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:** LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA

**TITLE:** PROPOSED TESC MEASURES SHEET 1 OF 2

**DATE:** JUNE 2021

**SHEET** 13 OF 17

**TOWN OF CONCRETE**

Lake Shannon

DOCK

UPSTREAM WORK AREA LIMIT

OHWM

BOAT BARRIER

CULVERT EXTENSION OR OPEN STABILIZED DITCH

EXISTING CULVERT

WETLAND A

POTENTIAL CULVERT AND/OR STABILIZED DITCH

INTAKE STRUCTURE

SEE NOTE 3

WETLAND G

WETLAND E

Lower Baker Dam

WETLAND C/D

SEEPAGE CUTOFF FOOTPRINT BELOW GROUND SURFACE

OHWM

Lower Baker River

RIGHT ABUTMENT ACCESS TRAIL (PEDESTRIAN ACCESS ONLY)

WETLAND F

WETLAND H

WETLAND M

STOCKPILING, STAGING  
INSTALL CULVERT

WETLAND N

WETLAND Q

WETLAND P

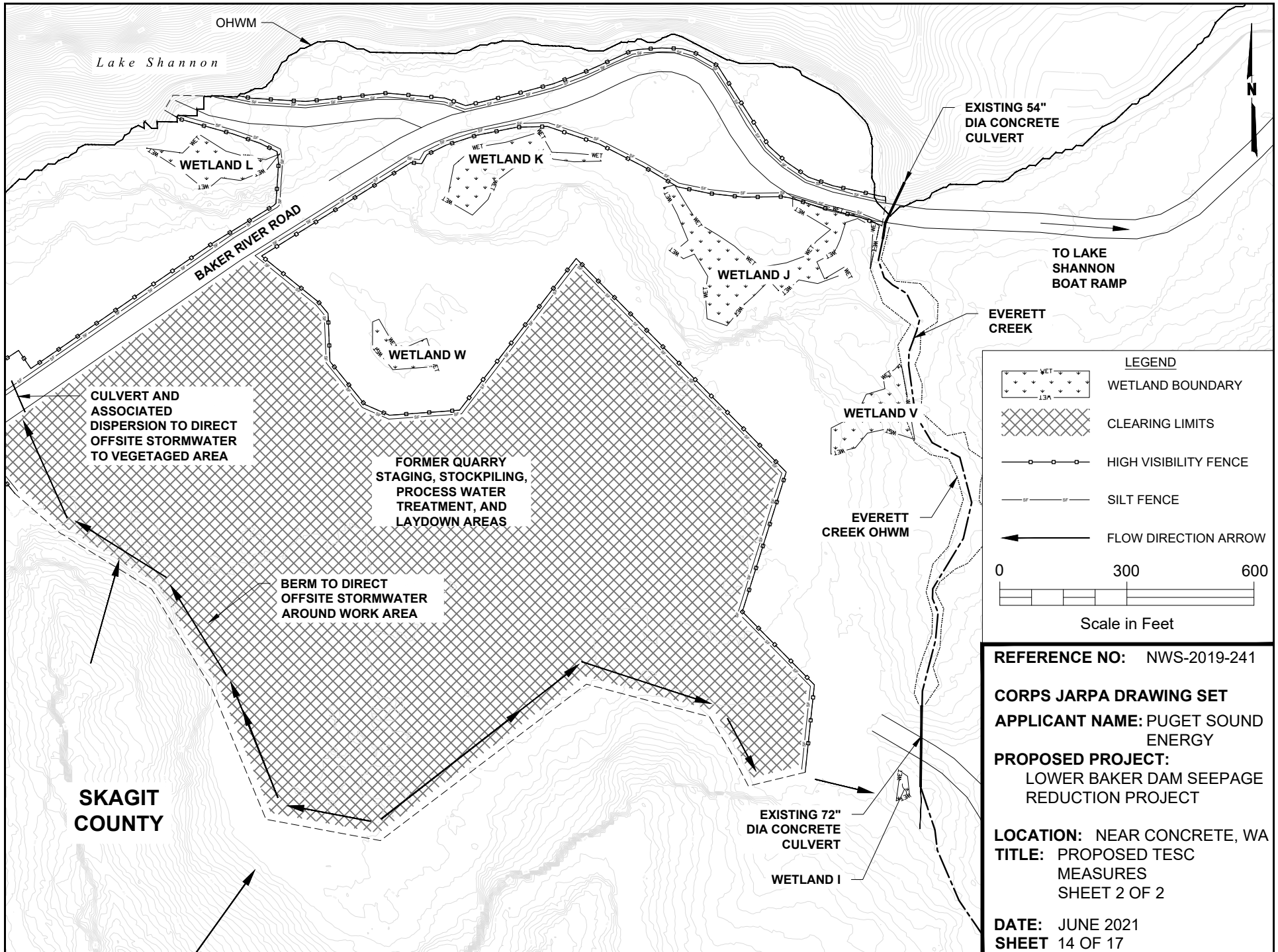
WETLAND O

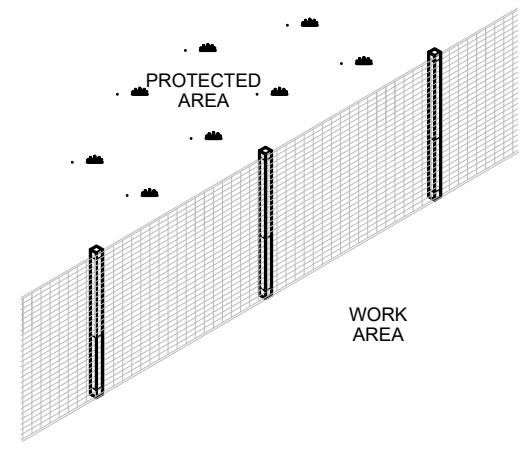
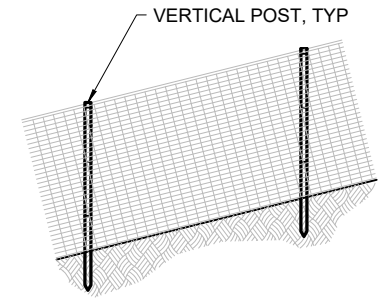
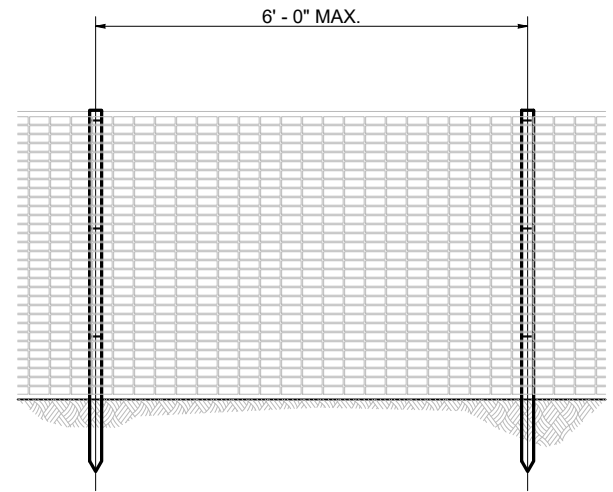
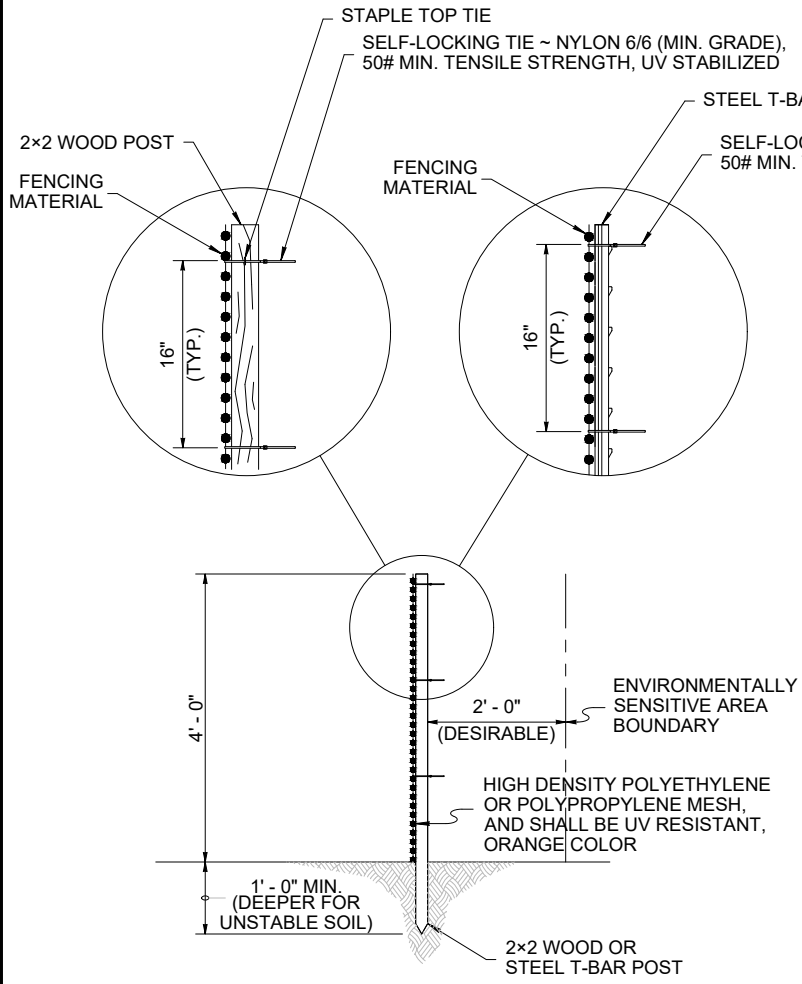
WETLAND B

TOWN OF CONCRETE  
SKAGIT COUNTY

BAKER RIVER ROAD

BAKER RIVER ROAD





1. Post shall have sufficient strength and durability to support the fence through the life of the project.

**REFERENCE NO:** NWS-2019-241

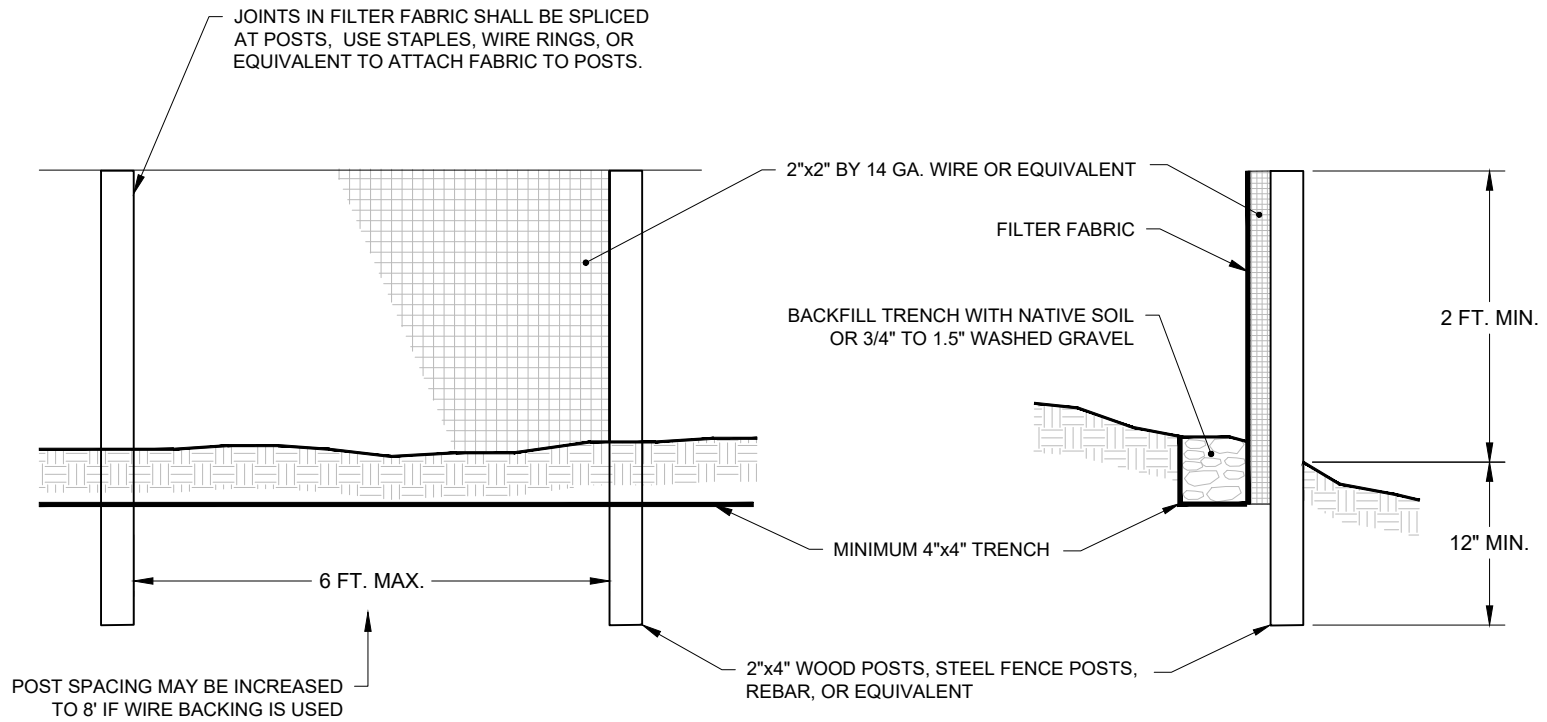
**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:**  
 LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA  
**TITLE:** HIGH VISIBILITY FENCE

**DATE:** JUNE 2021  
**SHEET** 15 OF 17



### SILT FENCE DETAIL

REFERENCE NO: NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

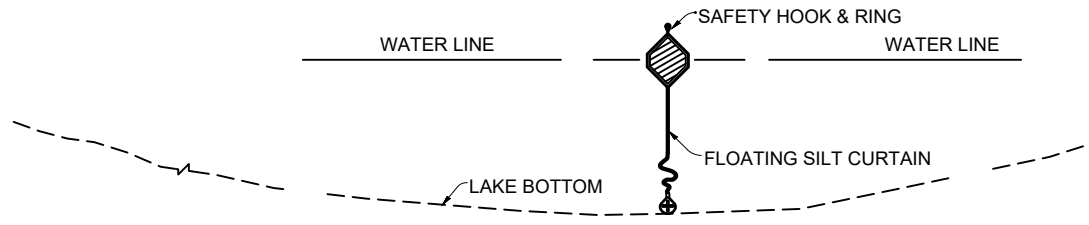
**PROPOSED PROJECT:**  
LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA

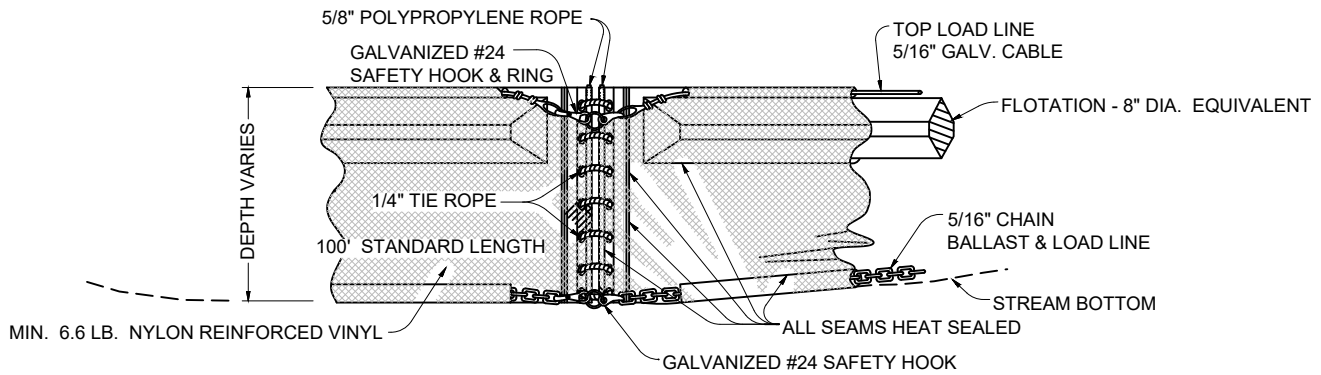
**TITLE:** SILT FENCE

**DATE:** JUNE 2021

**SHEET** 16 OF 17



**SIDE VIEW**



**ANCHOR ASSEMBLY**

### FLOATING SILT CURTAIN

**NOTES:**

1. COMPONENTS OF THIS CURTAIN MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. SUBSTITUTIONS SHALL BE AS APPROVED BY THE ENGINEER.
2. DETAIL DOWNLOADED 10/27/2018 FROM OREGON DEPARTMENT OF TRANSPORTATION. DETAIL TITLED "TURBIDITY BARRIER." LISTED AS DETAIL NUMBER DET6006.
3. CONTRACTOR TO DESIGN AND CONSTRUCT ANCHORAGES FOR THE FLOATING SILT CURTAIN NECESSARY TO MAINTAIN THE SILT CURTAIN POSITION.

**REFERENCE NO:** NWS-2019-241

**CORPS JARPA DRAWING SET**

**APPLICANT NAME:** PUGET SOUND ENERGY

**PROPOSED PROJECT:** LOWER BAKER DAM SEEPAGE REDUCTION PROJECT

**LOCATION:** NEAR CONCRETE, WA

**TITLE:** FLOATING SILT CURTAIN

**DATE:** JUNE 2021

**SHEET** 17 OF 17