

**REVISED PROPOSAL FOR PACIFIC GAS & ELECTRIC COMPANY,  
DRAFT LICENSE SURRENDER APPLICATION, POTTER VALLEY PROJECT (P-77)**

**Proposed and Supported by:  
California Department of Fish and Wildlife  
California Trout  
Humboldt County  
Mendocino County Inland Water and Power Commission  
Round Valley Indian Tribes  
Sonoma County Water Agency  
Trout Unlimited  
(Proponents)**

**November 7, 2023**

*On August 3, 2023, Sonoma County Water Agency, Mendocino County Inland Water and Power Commission, and Round Valley Indian Tribes submitted a proposal to PG&E for the future of Cape Horn Dam and Van Arsdale Diversion. The proposal concerned the New Eel-Russian Facility (Facility). On October 2, 2023, PG&E stated its intention to include the proposal in its administrative draft license surrender application. The Proponents listed above now jointly request that PG&E include this revised proposal in that administrative draft when released for stakeholder consultation on or about November 15, 2023.*

*Proponents understand that, following such consultation, PG&E will prepare and distribute a revised administrative draft in May 2024, and will submit a final license surrender application to the Federal Energy Regulatory Commission (FERC) in January 2025. Proponents expect to request that PG&E include the revised proposal (as may be further revised) in the final license surrender application to be filed in January 2025.*

*The Proponents recognize that the License Surrender Agreement and Water Diversion Agreement provided for below are agreements which will require input from a larger range of sovereign Indian Tribes; federal, state, and local agencies including affected Counties; and other stakeholders. The Proponents are committed to working with those other agencies and stakeholders to produce documents that reflect a broad agreement among those that are affected.*

**Core Components**

*Proponents are committed to the coequal goals of (1) improving fish migration and habitat on the Eel River with the objective of achieving naturally reproducing, self-sustaining, and harvestable native anadromous fish populations and (2) maintaining material and continued water diversion from the Eel River through the existing tunnel to the Russian River to support water supply reliability, fisheries, and water quality in the Russian River basin. Proponents agree to the following four core components of their joint proposal, and they expect to continue to negotiate and revise these components for incorporation in the final license surrender application. They also expect that, on the schedule attached as Attachment 1:*

*Revised PVP Proposal (November 7, 2023)*

- (1) *The Regional Entity will be formed with the legal and financial capacity to be responsible for ownership, construction, and operation of the Facility;*
- (2) *The selected design, construction, and operations of the Facility will fully implement the coequal goals stated above, and will be consistent with the fishing rights and water rights of the Round Valley Indian Tribes. The Proponents will enter into a License Surrender Agreement and Water Diversion Agreement, as described below, to state mutually agreeable terms for such design, construction, and operations;*
- (3) *Agreement will be reached with PG&E on terms of a Purchase and Sale Agreement for the project works listed in Attachment 2, which will: (a) assure that the Regional Entity will bear the additional costs, risks, and liabilities of this proposal relative to what would otherwise be PG&E's decommissioning plan, (b) provide appropriate consideration for the purchase of the project works in Attachment 2, (c) provide for closing and transfer of fee title to the project works listed in Attachment 2, concurrent with the Regional Entity's acceptance of FERC's authorization to construct the Facility, and (d) be consistent with the applicable terms of the License Surrender Agreement; and*
- (4) *The Proponents will seek to receive support for the proposal from the National Marine Fisheries Service and from representative governmental and non-governmental entities in the Russian and Eel River basins. The Proponents will undertake maximum best efforts to assure that such support is expressed by their entering into, or otherwise stating written support for, the License Surrender Agreement and Water Diversion Agreement described below.*

### **Coordination of Deconstruction of Cape Horn Dam and Construction of Facility**

*PG&E has stated: "PG&E's decommissioning plan will include the removal of in water facilities such that no feature will continue to impound water and the natural flow of the river will occur." Proponents support PG&E undertaking such deconstruction as expeditiously as practicable, targeting 2028 for commencement of such activities. Proponents agree that the Regional Entity's construction of the Facility will not interfere with or delay such deconstruction in any way. Proponents intend that the final design for the Facility (as reflected in the final license surrender application) will specify the detailed program for coordination of deconstruction and Facility construction.*

*Proponents will support the Regional Entity's applying for and securing authority from FERC to construct the Facility and own project works listed in Attachment 2. The Regional Entity will seek federal authority to complete the Facility as expeditiously as practicable after deconstruction. Such authority may be granted pursuant to a nonpower license, partial license transfer, or some other procedure. By March 2024, and in consultation with PG&E and FERC, Proponents will resolve how the Regional Entity will apply for such federal authority related to the Facility.*

*Proponents intend that the final license surrender application will clearly delineate the authority sought by the Regional Entity related to the Facility, separate from the authority sought by PG&E for*

*license surrender related to existing project works. Proponents intend that both authorities will be timely and concurrently secured as needed to assure that deconstruction of Cape Horn and Scott Dams is coordinated with, and not delayed by, construction of the Facility.*

### **License Surrender Agreement**

*Proponents will undertake negotiations to develop mutually agreeable terms related to the Regional Entity's construction of the Facility and other terms for license surrender that advance the coequal goals and meet regulatory requirements. Proponents will address contingencies related to the coordination of deconstruction and construction activities. In addition to periodically reporting to PG&E, they will ask and encourage PG&E to participate in the development of terms to manage sediment discharge, protect tribal cultural resources, and restore dam and reservoir sites following deconstruction, as required elements of the license surrender application. By November 2024, Proponents will undertake to finalize the settlement for incorporation of terms in the final license surrender application.*

### **Water Diversion Agreement**

*Proponents will also undertake negotiations of terms related to the Regional Entity's operation of the Facility. Such terms will address the water rights now held by PG&E and the portion to be acquired by the Regional Entity, and will specify management of the water rights, including quantity, rate, timing, bypass flows, and other conditions, for diversions. Proponents will include a mechanism (for example, streamflow dedication) to assure that the quantity subject to the water rights, and not agreed for diversion to the Russian River, remains in the Eel River. Proponents will include mechanisms to address impacts of the Facility's diversions on legal rights and interests and on fisheries in the Eel River. Among other mechanisms, the Agreement will commit the Proponents to collaboratively seek funding from multiple sources (which may include federal, state, water sales, and other) to restore the Eel River fisheries and construct the Facility and related infrastructure. A portion of the funding will be dedicated to an Eel River Restoration Fund to offset impacts of water diversions and fully implement the coequal goals. That Fund will be governed by a group of stakeholders including the Round Valley Indian Tribes, Wiyot Tribe, Humboldt County, and conservation group representation who determine the use, management, and application of the Fund. By November 2024, Proponents will finalize this agreement. The Proponents expect that terms that concern water supply diversions and other activities outside of FERC's jurisdiction will not be included in the license surrender application.*

**Attachment 1.**  
**Schedule for Coordination with PG&E in Further Development of Proposal Leading to Filing of License Surrender Application**

<b>Date</b>	<b>Event</b>
August 15, 2023	Sonoma County Water Agency, Mendocino County Inland Water and Power Commission, Round Valley Indian Tribes (as proxy for the Regional Entity), and PG&E began discussions regarding a Purchase and Sale Agreement.
October 31, 2023	Proponents (as listed on p. 1) report to PG&E on outcome of preliminary consultation with NMFS, CDFW, and stakeholders in the Russian and Eel River Basins to support incorporation of proposal in draft license surrender application. Proponents consult on the options described in Attachment 3. By this time, Proponents also convene a table to negotiate a License Surrender Agreement, along with a separate Water Diversion Agreement.
On or about November 15, 2023	PG&E releases draft license surrender application for its own stakeholder consultation.
December 31, 2023	The Regional Entity is formed as JPA. This entity and Proponents coordinate with respect to subsequent steps. This entity becomes PG&E’s counter-party in the negotiations of the Purchase and Sale Agreement.
March 15, 2024	Per paragraph (2) above, Proponents tentatively select a design option for the purpose of continuing consultation with other agencies and stakeholders.
May 31, 2024	PG&E releases revised draft license surrender application.  Before this date, Proponents submit to and discuss with PG&E a draft of the license surrender application that deals with the Facility. This application reflects progress on paragraphs (1) – (4) above as needed for a complete draft application, including the Regional Entity’s demonstration of fiscal capacity consistent with the requirements of FERC’s rules.
November 30, 2024	PG&E and the Regional Entity reach agreement on terms of Purchase and Sale Agreement.  Proponents reach agreement on terms of License Surrender Agreement, including terms related to construction of the Facility.  Proponents reach agreement on terms of Water Diversion Agreement.
January 31, 2025	PG&E files the license surrender application with FERC. The Regional Entity applies to FERC for a nonpower license or other form of authority to construct the Facility and own associated infrastructure.

**Attachment 2.**  
**Project Facilities Proposed to be Transferred to Regional Entity**

Project Facility/Feature
<b>River Gages</b>
E2 – Eel R BL Scott Dam NR Potter Valley CA (11470500)
<b>Project Facility Access Roads</b>
Gage E2 Access Rd
Penstock, Pipeline and Butterfly Valve House Access Rd
Powerhouse Main Access Rd
<b>Intake Structures</b>
Van Arsdale Diversion Intake
<b>Tunnels and Adits</b>
Tunnel No. 1
Tunnel No. 2
Tunnel No. 1 Slide Gate and Adit
Tunnel No. 1 Gage Shaft
<b>Conduits, Penstocks, Control and Valve Houses</b>
Conduit No. 1 (Upper Wood Stave, Steel Pipe and Components)
Conduit No. 2 (Lower Wood Stave, Steel Pipe and Components)
Conduit No. 1, 72-inch Butterfly Valve House
Conduit No. 1 Standpipe and Surge Chamber Vent
Penstock No. 1
Penstock No. 2
Penstock Nos. 1 and 2, 60-inch Gate Valves (2)
Penstock Bypass Channel
Powerhouse Bypass System
<b>Powerhouse, Switchyard, and Tailrace</b>
Potter Valley Powerhouse
Potter Valley Powerhouse Tailrace, Radial Gate, and Venturi Flume
Potter Valley Powerhouse Discharge Canal
<b>Diversion Gages</b>
E5 – Potter Valley Irrig CN E5 NR Potter Valley CA (11471105)
E6 – Potter Valley Irrig CN E6 NR Potter Valley CA (11471106)
E16 – Potter Valley PH Intake near Potter Valley CA (11471000)
<b>River Gages</b>
E11 – Eel River at Van Arsdale Dam near Potter Valley CA (11471500)

<b>Project Facility/Feature</b>
<b>Leakage Weirs and Piezometers</b>
Cape Horn Dam Leakage Weirs
Cape Horn Dam Piezometers
<b>Fish Screen and Associated Facilities (to the extent a given structure is part of the final design of the new Facility)</b>
Van Arsdale Fish Screen Facility
Van Arsdale Fish Screen Facility Back-up Generator Building
Van Arsdale Fish Screen Facility Motor Control Building
Van Arsdale Fish Return Channel
Storage Building
<b>Project Communication/Power Lines</b>
Conduit No. 1, 72-inch Butterfly Valve House Communication
Cape Horn Dam Control Building Communication/Power Line
Fish Screen Facility Communication/Power Line
Tunnel No. 1 Slide Gate and Adit Communication/Power Line
Penstock Nos. 1 and 2, 60-inch Stop Valves Communication/Power Line
<b>Helicopter Landing Sites</b>
Potter Valley Powerhouse Helicopter Landing Site
<b>Ancillary and Support Facilities</b>
Potter Valley Powerhouse Operators Office
Potter Valley Powerhouse Maintenance Office
Potter Valley Powerhouse Operators Restrooms
Potter Valley Powerhouse Weather Station (USACE owns a station, discuss fate outside process)
<b>Project Facility Access Roads</b>
Cape Horn Dam East Access Rd
Intake Access Rd
Penstock, Pipeline and Butterfly Valve House Access Rd (Access for private landowner)
Powerhouse Main Access Rd
<b>Project Facility Access Trails</b>
Gage E11 Access Trail
<b>Project Water Rights</b>
The water rights owned by PG&E that authorize diversions from the Eel River. The Facility will be operated on terms established in a water diversion agreement between between Regional Entity and Proponents. The Purchase and Sale Agreement between PG&E and the Regional Entity will include consistent terms.
<b>Project Communication Line</b>
Scott Dam Block Building Communication Line* - <i>only if needed for E2 gage</i>

Revised PVP Proposal (November 7, 2023)

<b>Other Potter Valley Project Facilities and Features</b>	
<b>Dam and Associated Facility/Features</b>	
	<i>Cape Horn Dam – PG&amp;E will hold fee title during deconstruction and other implementation of its decommissioning plan approved by FERC. During this phase, the Regional Entity will have property interests sufficient to hold nonpower license or other federal authority to construct Facility. Fee title for site will transfer to the Regional Entity when PG&amp;E’s license surrender is effective.</i>
<b>Reservoir</b>	
	<i>Van Arsdale Reservoir – PG&amp;E will hold fee title to waters and submerged lands during deconstruction of Cape Horn Dam and other implementation of its decommissioning plan. During this phase, the Regional Entity will have property interests sufficient to hold nonpower license or other federal authority to construct Facility. Fee title for site will transfer to the Regional Entity when PG&amp;E’s license surrender is effective.</i>
<b>Powerhouse, Switchyard, and Tailrace</b>	
	<i>Potter Valley Powerhouse Switchyard – distribution switchyard to be partitioned and retained by PG&amp;E; the Regional Entity is expected to retain station service transformers and access to south side of powerhouse. Balance of switchyard can remain with PG&amp;E or be transferred to the Regional Entity with easements granting access as needed to the other party.</i>
<b>Fish Ladder and Associated Facilities</b>	
	<i>Fish Attraction Facility – PG&amp;E will hold fee title during deconstruction of Cape Horn Dam and other implementation of its decommissioning plan. During this phase, the Regional Entity will have property interests sufficient to hold federal authority to construct Facility. Fee title for site will transfer to the Regional Entity when PG&amp;E’s license surrender is effective.</i>

**Attachment 3.**  
**Design Options for Eel-Russian Facility**

Cape Horn Dam and Van Arsdale Reservoir will be substantially removed, although parts of the foundations and the right abutment will be retained to provide the anchorage for diversion or passage elements. The details and extent of the removal will be further developed along with the design for the new diversion and fish screening facilities. Two alternatives are currently under consideration for CHD removal, and the current preliminary descriptions are below. Preliminary drawings follow at the end of this attachment.

**Alternative C1 – Control Section with Pump Station**

Alternative C1 would include lowering a section of the concrete gravity portion of Cape Horn Dam from elevation 1,490.4 feet down to about 1,452.0 feet to create a control section, then fitting a pump station adjacent to the control section. The final height and dimensions of the control section, and the potential need for a bladder dam, are currently the subject of hydraulic modeling. The portion removed would begin at the concrete retaining wall, would be relatively flat, and would extend toward river left approximately 70 feet. At that point, the crest would slope downward at 3H:1V for 15 feet to reach an elevation of 1447.0. From there, the remainder of the control section would continue at elevation 1,447.0 feet for another 15 feet. This latter portion of the control section would help ensure adequate flow depths at low flow, while the upper portion would provide adequate flow area for high flows. In total, the control section would be approximately 100 feet long and would pass all Eel River flows, except for those diverted. At the end of the control section a vertical section of the dam would remain up to elevation 1,477.0, beyond which the dam would slope at about a 3H:1V slope to match the existing crest elevation of 1,490.4 feet. The section of dam lowered to elevation 1,477.0 feet would marry up with a new reinforced concrete pump station.

Due to the existing top elevation of the retaining wall at 1,519.0 feet and the proposed lowered dam crest elevation between 1,447.0 and 1,452.0 feet, the retaining wall would be 67 feet tall. Due to this excessive height and the concern for stability, the maximum elevation of the retaining wall is proposed to be lowered to elevation 1,472.0 feet, leaving a retaining wall that is approximately 20 feet tall. Lowering the retaining wall would require excavating out the earth fill portion of the dam down to an approximate elevation of 1,467.0 feet. This excavation will include partial demolition of the mass concrete core wall and possibly some of the reinforced concrete core wall. Rock riprap removed during earth fill excavation would then be re-placed and augmented with armor material to convert the earth fill portion of the dam to an auxiliary spillway. The auxiliary spillway would be activated at elevation 1,467.0 feet and would flow approximately 10 feet deep before overtopping the new lowered section of the dam and the intake pump station.

Alternative C1 includes lowering a 100-foot section of Cape Horn Dam by 38.4 and 43.4 feet. The new control section will include a 10-foot-wide low flow section set to elevation 1,447.0 feet that slopes up at 3H:1V to a 70-foot-long section set to elevation 1,452.0 feet. Downstream of the low flow section at approximately 100 feet, the existing fish hotel and exclusion barrier would be removed down to elevation 1,446.0, with the area between the two vertical controls occupied by a deep pool. Downstream of the lower fish hotel and exclusion barrier approximately 100 to 125 feet, an existing bedrock control maintains a riffle at an approximate elevation of 1,445.0 feet. From a fish passage perspective, upstream migrants would first encounter the existing plunge pool, followed by a maximum vertical drop of 1 foot at the former exclusion barrier. Just upstream, migrants would encounter another deep pool, followed by another maximum drop of 1 foot at the control section.

**Alternative C2 – Roughened Channel with Gravity Supply**

*Revised PVP Proposal (November 7, 2023)*

Alternative C2 considers the complete removal of the concrete gravity portion of Cape Horn Dam and construction of a roughened channel and new diversion weir near the intake to the Van Arsdale Diversion facility. The length and dimensions of the roughened channel are currently the subject of hydraulic modeling.

Alternative C2 would include lowering the entire concrete gravity portion of Cape Horn Dam from elevation 1,490.4 feet down to about 1,457.5 feet. Roughly 100 feet downstream of the dam, the fish hotel and exclusion barrier would also be lowered, from a variable elevation down to about elevation 1,453.7 feet. The remainder of the concrete dam and fish hotel/exclusion barrier would maintain vertical control at those locations. Approximately 280 feet downstream of the exclusion barrier, vertical control is maintained at about 1,445.0 feet by an existing bedrock control. Between the downstream bedrock control and the fish hotel/exclusion barrier a roughened channel is proposed. The roughened channel would resemble a boulder cascade, with very large rock material providing hydraulic complexity and channel stability sufficient to withstand extreme high flow events. A similar roughened channel would extend upstream of the dam approximately 420 feet, terminating at a sheet pile control weir with a maximum crest elevation set to 1,473.0 feet. The upstream sheet pile control weir would include a low flow section approximately 20 feet wide with a crest elevation of 1,470.0 feet.

The entire roughened channel would be approximately 800 feet long and would be about 10 to 15 feet deep on average. Areas on river left near the existing dam would likely not require hardening due to the presence of significant bedrock. The roughened channel would include a low flow corridor that matches the existing channel at the downstream terminus and matches the low flow section at the upstream control weir. The overall planform of the channel includes a single valley-wide bend with a radius of curvature of about 400 to 500 feet. The low flow corridor would include two smaller bends with a radius of curvature of approximately 80 to 100 feet. The slope of the roughened channel thalweg would be roughly 3.1 percent.

The upstream control weir would span the channel, connecting on river left to the existing diversion facility and on river right to a reinforced concrete extension of the existing dam wingwall. The wall extension would be approximately 150 feet long. The upstream control weir would serve as a backwater control for a modified diversion structure.

#### Dewatering and Construction Sequencing

Cape Horn Dam removal can take place either before or after Scott Dam removal. Hydraulic modeling currently underway will help to determine if removal before or after Scott Dam is preferred or advantageous. However, it is assumed here that Cape Horn Dam removal activities and construction of a new diversion and conveyance system would take place after Scott Dam removal.

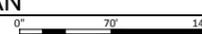


**SHEET KEY NOTES:**

- A REMOVE FISH HOTEL AND FISH EXCLUSION BARRIER DOWN TO ELEVATION INDICATED. PERMANENTLY PLUG ENTRANCE OPENINGS WITH CONTROLLED LOW STRENGTH MATERIAL OR SIMILAR.
- B REMOVE 100-FOOT WIDE SECTION OF CAPE HORN DAM DOWN TO ELEVATION INDICATED. STEP UP ON RIVER LEFT TO MATCH TOP OF PUMP STATION STRUCTURE. SLOPE UPWARD FROM STRUCTURE TO MATCH EXISTING DAM CREST AT 3H:1V. SLOPE 100-FOOT SECTION DOWN FROM RIGHT TO LEFT (LOOKING DOWNSTREAM) TO CONCENTRATE FLOW NEAR INTAKE SCREENS.
- C CONSTRUCT NEW REINFORCED CONCRETE PUMP STATION WITH ROOF ELEVATION SET TO ELEVATION 1477.0. ELEVATION TO BE VERIFIED DURING LATER DESIGN PHASES. PUMP STATION TO INCLUDE BETWEEN 2 AND 4 VERTICAL TURBINE PUMPS ON DUTY, WITH ONE ON STANDBY (3 AND 5 PUMPS TOTAL), AND SET OVER WET WELL RECEIVING WATER FROM SCREEN INTAKES. NUMBER AND SIZE OF PUMPS TO BE DETERMINED DURING LATER DESIGN PHASES.
- D INSTALL 7- TO 8-FT DIAMETER EPOXY-COATED STEEL PIPE, OR BUTT-FUSION WELDED HDPE PIPE OR PRECAST REINFORCED CONCRETE BOX SECTIONS AND CONNECTED TO THE INTAKE PUMPS VIA A MANIFOLD. VALVING AND FITTINGS NOT SHOWN. BURY PIPE IN OVERBANK AREA ON APPROPRIATE BEDDING AND SUFFICIENT BACKFILL FOR LONG-TERM PROTECTION. CONNECT PIPE TO NEW BULKHEAD WALL AT RENOVATED VAN ARSDALE DIVERSION FACILITY.
- E INSTALL 7 VERTICAL CYLINDER SCREENS MOUNTED TO EXTERIOR FACE OF NEW PUMP STATION. SET PLATFORM ELEVATION OF SCREENS TO 1447.0. ELEVATION TO BE VERIFIED DURING LATER DESIGN PHASES. ENCLOSE MANIFOLD IN STEEL DEBRIS CAGE STRUCTURE WITH MAX SPACING BETWEEN MEMBERS BETWEEN 2 AND 4 FEET.
- F RENOVATE EXISTING VAN ARSDALE DIVERSION TO RECEIVE WATER FROM THE NEW PUMP STATION. REQUIRES DEMOLITION OF INCLINED SCREENS. WORK EFFORT MAY ALSO INCLUDE DEMOLITION OR DECOMMISSIONING OF ARCHIMEDES SCREW PUMP, FISH BYPASS, AND OTHER INFRASTRUCTURE SUPPORTING THE EXISTING SCREENS AND FISH BYPASS.

**ALTERNATIVE C-1 PLAN**

SCALE: 1" = 70'



REV	DATE	BY	DESCRIPTION
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**WARNING**  
  
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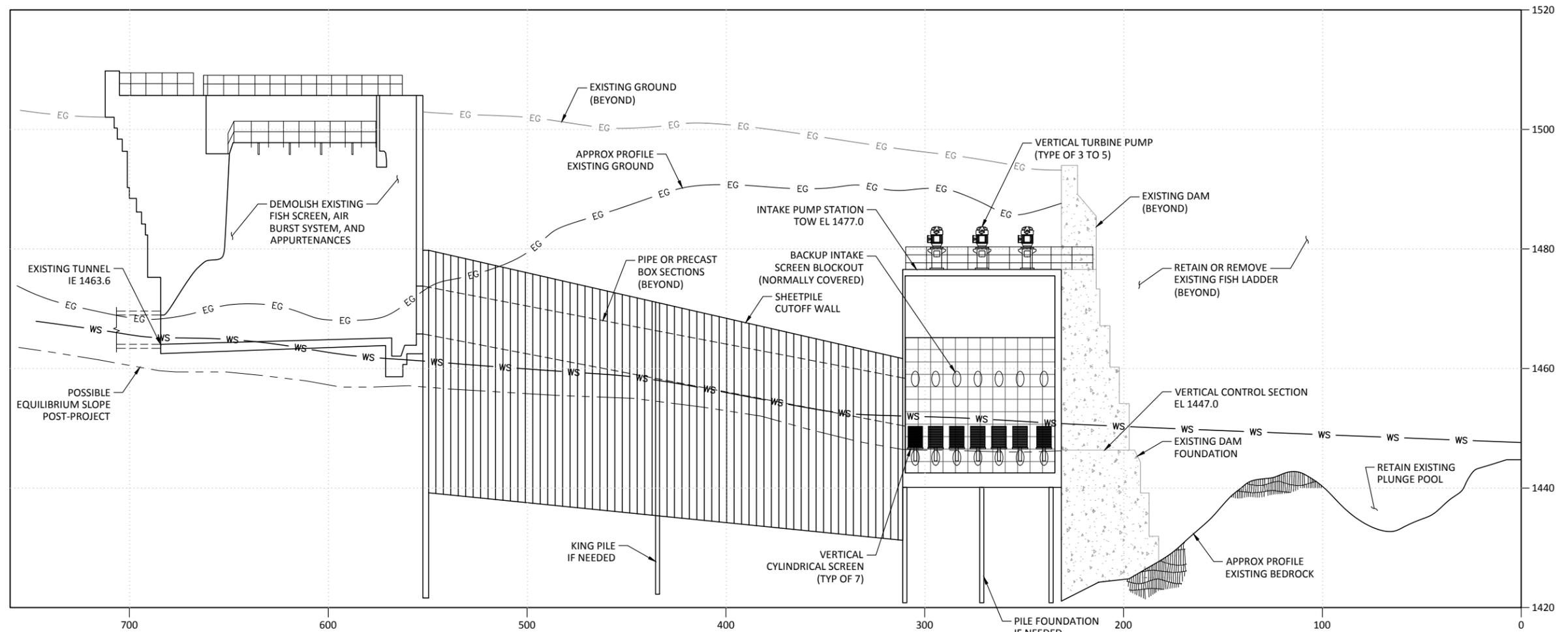
CALTROUT  
 POTTER VALLEY PROJECT FEASIBILITY STUDY

CAPE HORN DAM REMOVAL  
 ALTERNATIVE C-1 PLAN

DESIGNED K. JENSEN  
 DRAWN R. GUERRERO  
 CHECKED V. AUTIER  
 PROJECT DATE 07/14/21

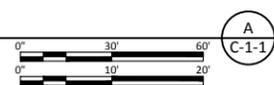
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**SECTION**

SCALE: HORIZ 1" = 30'  
VERT 1" = 10'



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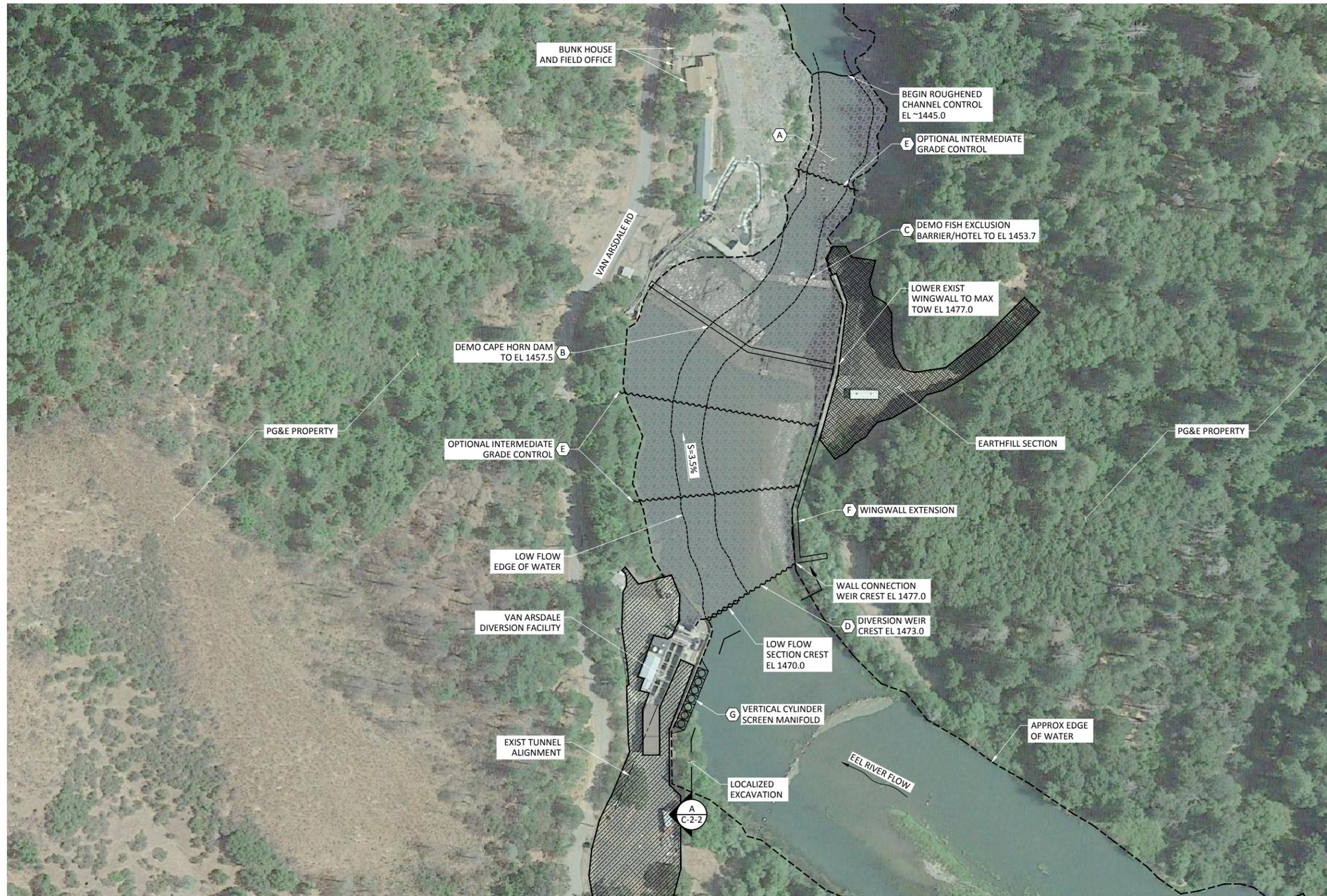


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POTTER VALLEY PROJECT FEASIBILITY STUDY

CAPE HORN DAM REMOVAL  
ALTERNATIVE C-1 SECTION

DESIGNED K. JENSEN  
DRAWN R. GUERRERO  
CHECKED V. AUTIER  
PROJECT DATE 07/14/21

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**C-1-2**

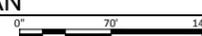


**SHEET KEY NOTES:**

- A INSTALL ROUGHENED CHANNEL USING LARGE DIAMETER BOULDER EMBEDDED IN SHOTCRETE AND FOUNDED ON APPROPRIATELY SIZED AGGREGATE FILTER LAYER. BACKFILL BOULDER BED WITH COBBLE AND GRAVEL TO FILL INTERSTICES. DRILL AND/OR BLAST AND BREAK UP EXPOSED BEDROCK AS NECESSARY TO CREATE UNIFORM SLOPE TO NEW CHANNEL. REUSE BEDROCK SPOILS AS ROUGHENED CHANNEL MATERIAL. ROUGHENED CHANNEL AREA APPROX 100,000 SQUARE FEET AND BETWEEN 10 AND 15 FEET DEEP.
- B REMOVE CAPE HORN DAM DOWN TO ELEVATION INDICATED. REMAINDER OF DAM BELOW NEW CREST ELEVATION TO SERVE AS VERTICAL GRADE CONTROL. REUSE LARGE CONCRETE SPOILS AS BOTTOM LAYER OF ROUGHENED CHANNEL.
- C REMOVE FISH HOTEL AND FISH EXCLUSION BARRIER DOWN TO ELEVATION INDICATED. PERMANENTLY PLUG ENTRANCE OPENINGS WITH CONTROLLED LOW STRENGTH MATERIAL OR SIMILAR.
- D INSTALL UPSTREAM DIVERSION WEIR WITH CREST ELEVATION AT 1473.0 AND LOW-FLOW SECTION CREST ELEVATION AT 1470.0. TAPER WEIR DOWN FROM WINGWALL EXTENSION AT 1477.0 TO 1473.0. ELEVATIONS TO BE VERIFIED DURING LATER DESIGN PHASES. SHEETPILE TO BE DRIVEN USING VIBRATORY METHODS AND SECURED TO BEDROCK USING KINGPILES. CAP DIVERSION WEIR WITH SHOTCRETE-EMBEDDED BOULDER.
- E INSTALL INTERMEDIATE SHEETPIILING AS VERTICAL GRADE CONTROL TO ENSURE UNIFORM GRADE ACROSS ROUGHENED CHANNEL. REQUIREMENTS FOR NUMBER AND SPACING OF INTERMEDIATE SHEETPILE TO BE DETERMINED DURING LATER DESIGN PHASES.
- F LOWER EXIST CONCRETE WINGWALL TO ELEVATION 1477.0. ELEVATION TO BE VERIFIED DURING LATER DESIGN PHASES. EXTEND WINGWALL SOUTH TO PROVIDE CONNECTION WITH DIVERSION WEIR.
- G INSTALL 7 STANDBY VERTICAL CYLINDER SCREENS MOUNTED TO EXTERIOR FACE OF EXIST DIVERSION FACILITY GUIDEWALL. SET PLATFORM ELEVATION OF SCREENS TO 1465.0. ELEVATION TO BE VERIFIED DURING LATER DESIGN PHASES. ENCLOSE MANIFOLD IN STEEL DEBRIS CAGE STRUCTURE WITH MAX SPACING BETWEEN MEMBERS BETWEEN 2 AND 4 FEET.

**ALTERNATIVE C-2 PLAN**

SCALE: 1" = 70'



**WARNING**  
  
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CALTROUT  
 POTTER VALLEY PROJECT FEASIBILITY STUDY

CAPE HORN DAM REMOVAL  
 ALTERNATIVE C-2 PLAN

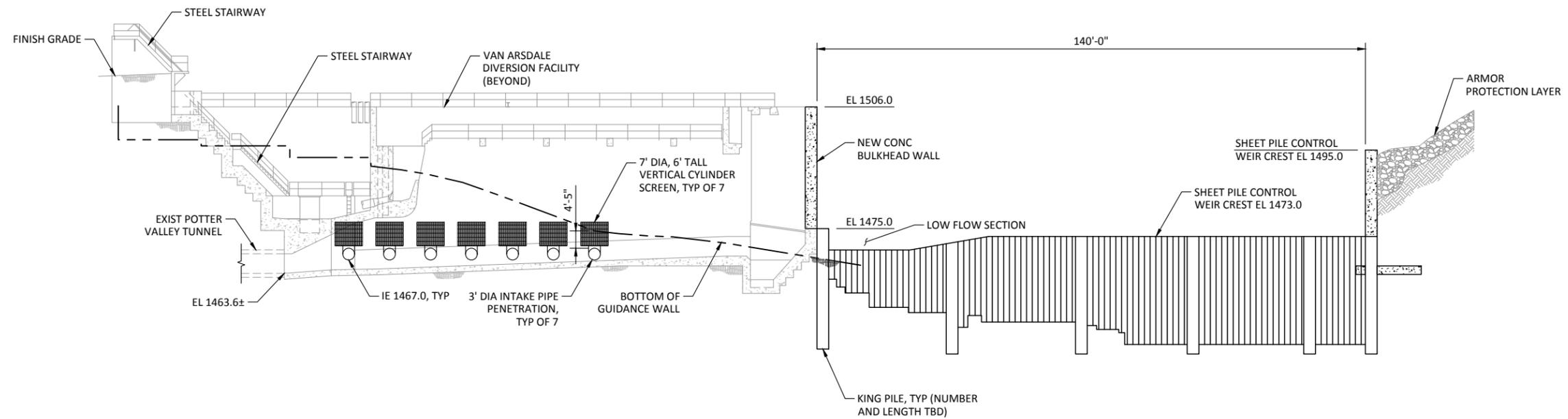
DESIGNED K. JENSEN  
 DRAWN R. GUERRERO  
 CHECKED V. AUTIER  
 PROJECT DATE 07/14/21

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**C-2-1**

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**SECTION**

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CAPE HORN DAM REMOVAL  
 ALTERNATIVE C-2 SECTION

DESIGNED K. JENSEN  
 DRAWN R. GUERRERO  
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DRAWING  
**C-2-2**