KLAMATH RIVER RENEWAL CORPORATION

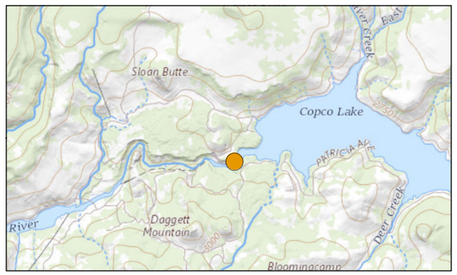
Lower Klamath Project

Figure A-1
Overview Map of the Copco No. 1 Development

N

0 50 100 200 300 Feet

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)



Notes

1. Coordinate System: NAD 1983 2011 StatePlane California I FIPS 0401 Ft US

2. Background: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.

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KLAMATH
RIVER RENEWAL
CORPORATION

Lower Klamath Project

Figure A-2

Copco No. 1 Historic Operator Building Foundation

N

0 37.5 75 150 225 Feet

PRELIMINARY DESIGN
(NOT FOR CONSTRUCTION)

Notes

1. Coordinate System: NAD 1983 2011 StatePlane California I FIPS 0401 Ft US

2. Data Sources: Main Drawing: Knight Piesold 100 Design

3. Main Map Imagery: GMA Hydrology Inc.; Inset Background: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.

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CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION (CEII)

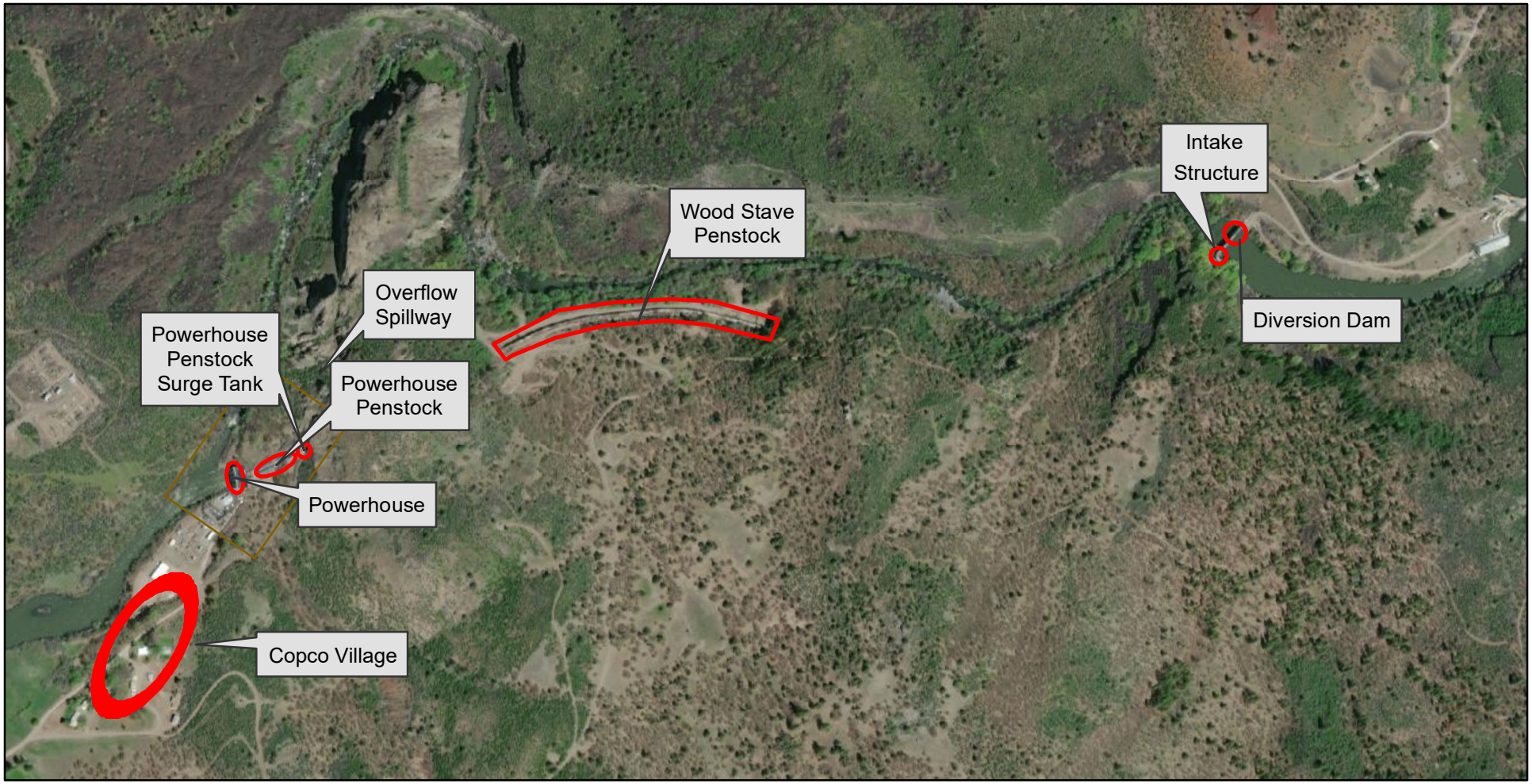
REDACTED

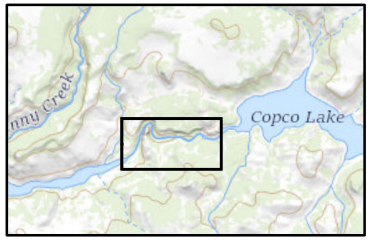
FIGURE A-3 COPCO NO. 1 DIVERSION TUNNEL

FIGURE A-4 COPCO NO. 1 DAM STRUCTURE

FIGURE A-5 COPCO NO. 1 PENSTOCK NO. 3

FIGURE A-6 COPCO NO. 1 POWERHOUSE AND TAILRACE





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(At original document size of 8.5x11)
1:9,000

Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet

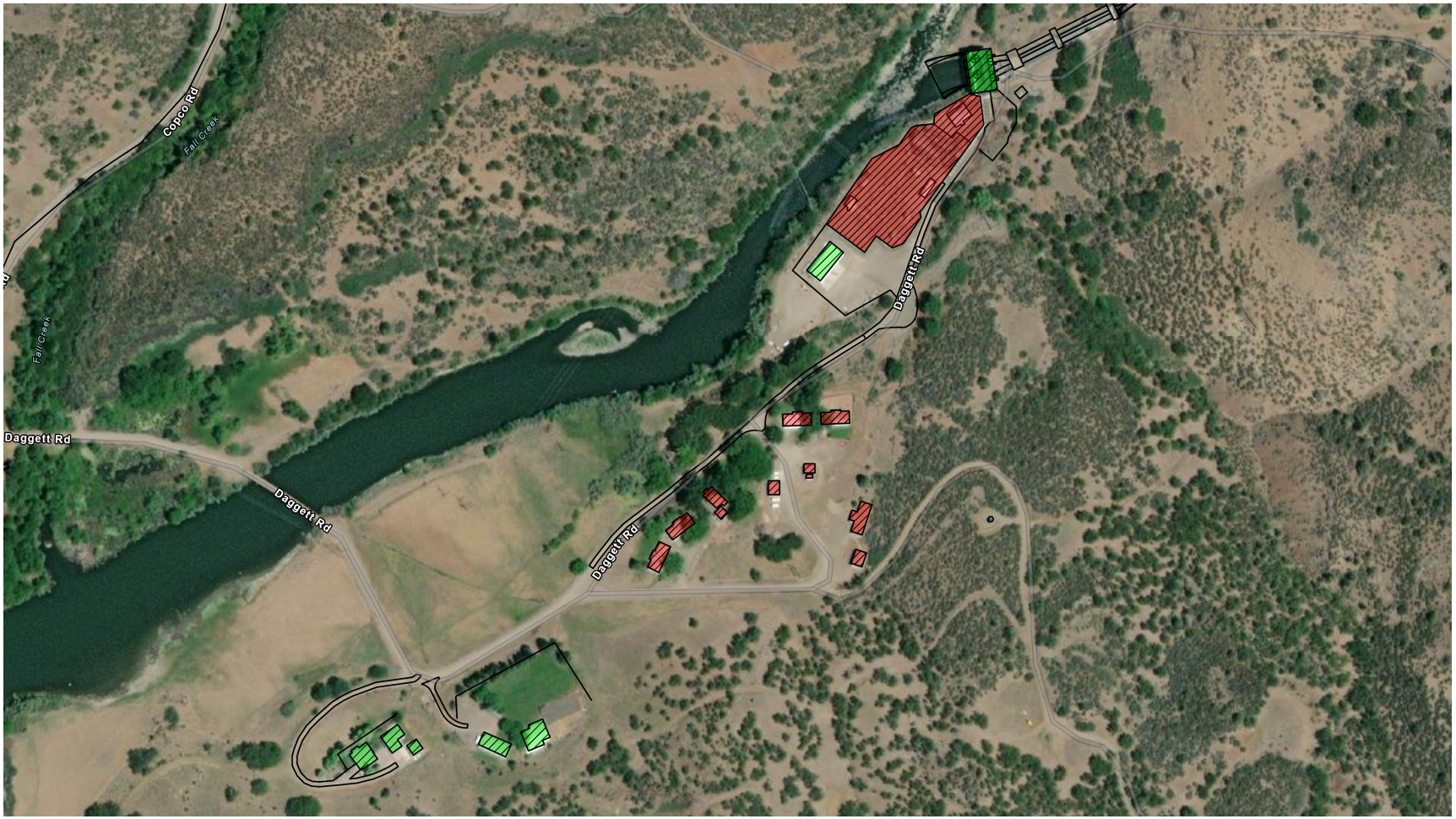
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

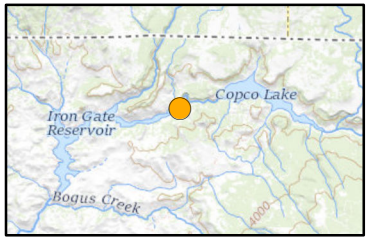
Lower Klamath Project

Figure A-7
Overview Map of the Copco No. 2 Development

KLAMATH RIVER RENEWAL CORPORATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)





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1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet
2.Data Sources: Main Drawing: Knight Piesold 100 Design
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

LEGEND:

Structures To Remain

Structures To Be Removed

Lower Klamath Project

Figure A-8

Copco Village

KLAMATH RIVER RENEWAL CORPORATION

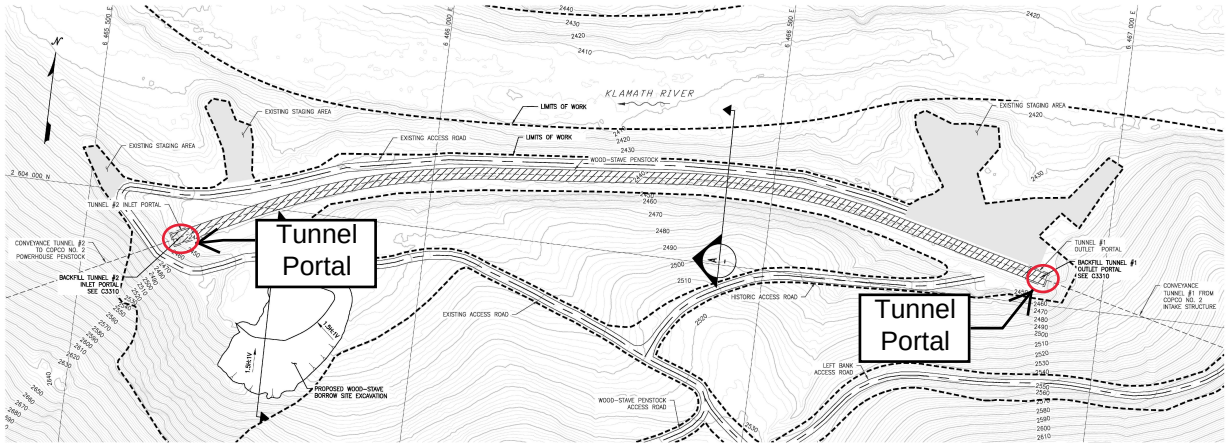
PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

FIGURE A-9 COPCO NO. 2 DIVERSION DAM



PLAN

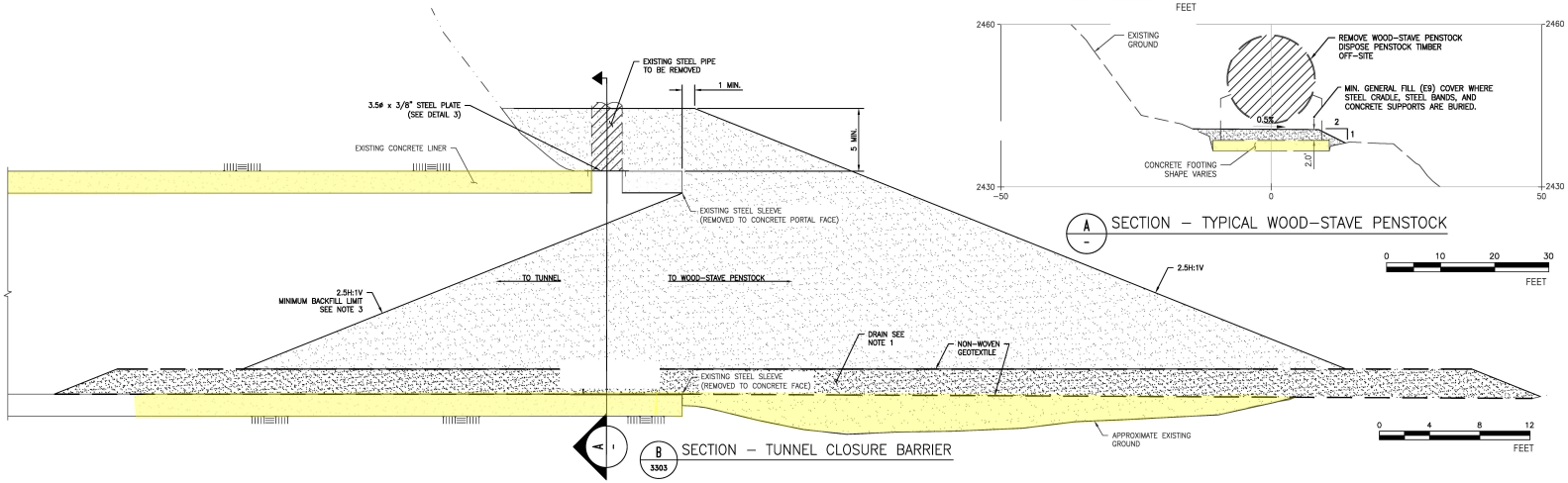
0 60 120 180 FEET

NOTES: PLAN AND SECTION A

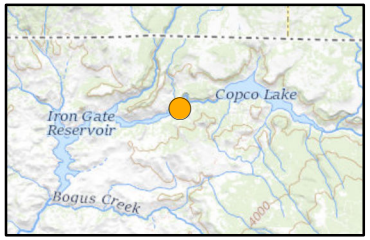
1. REFER TO GENERAL NOTES ON DRAWING G0006 FOR INFORMATION REGARDING TOPOGRAPHIC AND BATHYMETRIC DATA SOURCES.
2. BACKFILL TUNNEL PORTAL AT EACH END OF WOOD-STAVE PENSTOCK, SEE DRAWING C3310.
3. STEEL CRADLES, STEEL BANDS, AND CONCRETE FOOTINGS TO BE LAID DOWN AND BURIED ON SITE. CONTRACTOR MAY OPT TO DISPOSE OF STEEL CRADLES AND BANDS OFFSITE.
4. EXCAVATION SLOPES TO BE VERIFIED BY THE ENGINEER. EXCAVATION IN AREAS WITH SATURATED SOILS OR WITH SIGNIFICANT SEEPAGE MAY REQUIRE REDUCED SLOPE ANGLES AND/OR DEWATERING.
5. SEE CALIFORNIA OREGON POWER COMPANY COPCO NO. 2 DEVELOPMENT HISTORIC DRAWING F-3719 AND F-3753 FOR WOOD-STAVE PENSTOCK DETAILS.
6. APPROXIMATE VOLUME OF BORROW SOURCE: 7,030 CY. MATERIAL TO BE SOURCED AS REQUIRED.

NOTES SECTION B:

1. BARRIER DESIGN SAME FOR BOTH PORTALS WITH THE EXCEPTION OF THE DRAIN. DRAIN IS ONLY REQUIRED AT THE TUNNEL #1 OUTLET. DRAIN SIZE TO BE ADJUSTED BASED ON OBSERVED FLOWS FROM TUNNEL.
2. BLOCK PIPE OUTLET WITH STEEL PLATE PRIOR TO BACKFILLING. CONTRACTOR MAY OPTION TO REMOVE TOP SLAB OF CONCRETE PORTAL INSTEAD OF BARRICADING PIPE OUTLET WITH STEEL PLATE.
3. MATERIAL PLACED INSIDE OF TUNNEL SHALL BE PLACED AND COMPACTED FOLLOWING THE RELEVANT CRITERIA IN THE TECHNICAL SPECIFICATIONS UNTIL HEIGHT RESTRICTIONS LIMIT THE ABILITY OF THE SMALLEST AVAILABLE EQUIPMENT TO MANEUVER WITHIN THE TUNNEL. ENOUGH MATERIAL SHALL THEN BE PUSHED INTO THE PORTAL THAT WILL SATISFY THE VOLUME OF MATERIAL REQUIRED TO MEET THE MINIMUM BACKFILL LIMIT BASED ON THE ELEVATION REACHED USING CONVENTIONAL PLACEMENT TECHNIQUES.
4. ALL STEEL BOLTS AND FASTENERS SHALL BE CARBON STEEL PER ASTM A36.



A – SECTION – TYPICAL WOOD–STAVE PENSTOCK



Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet
2.Data Sources: Main Drawing: Knight Piesold 100 Design
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

LEGEND:

- DEMOLITION / REMOVAL
- STAGING AREA
- CONCRETE TO REMAIN
- GENERAL FILL (E9)
- LIMITS OF WORK
- (E) EARTHFILL

Lower Klamath Project

Figure A-10
Copco No. 2 Wood Stave Penstock and Conveyance Tunnels

KLAMATH RIVER RENEWAL CORPORATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

FIGURE A-11 COPCO NO. 2 POWERHOUSE PENSTOCK SURGE TANK

Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet

2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Legend

CONCRETE TO REMAIN

Lower Klamath Project

Figure A-12

Copco No. 2 Overflow Spillway

KLAMATH RIVER RENEWAL CORPORATION

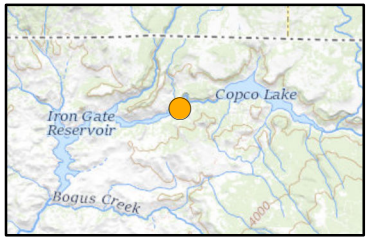
PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

FIGURE A-13 COPCO NO. 2 POWERHOUSE PENSTOCK



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1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet

2.Data Sources: Main Drawing: Knight Piesold 100 Design

3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

LEGEND:

Structures to be Removed

Lower Klamath Project

Figure A-14

Copco No. 2 Powerhouse

KLAMATH RIVER RENEWAL CORPORATION

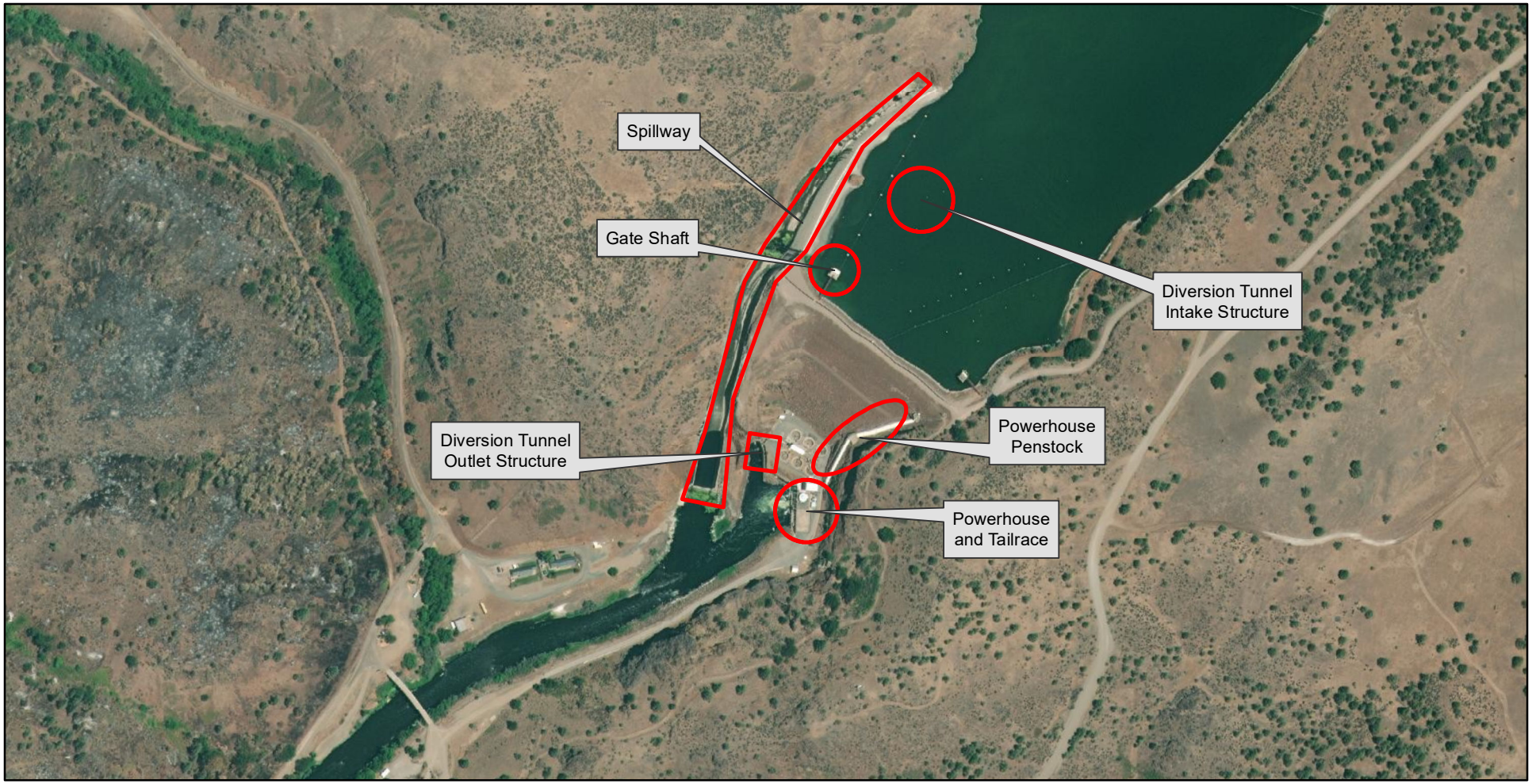
PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

FIGURE A-15 COPCO NO. 2 INTAKE STRUCTURE DISPOSAL SITE



N

0 400 800 Feet

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1:6,000

Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet

2. Main Figure Imagery: GMA Hydrology; Inset Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Lower Klamath Project

Figure A-16
Overview Map of the Iron Gate Development

KLAMATH RIVER RENEWAL CORPORATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

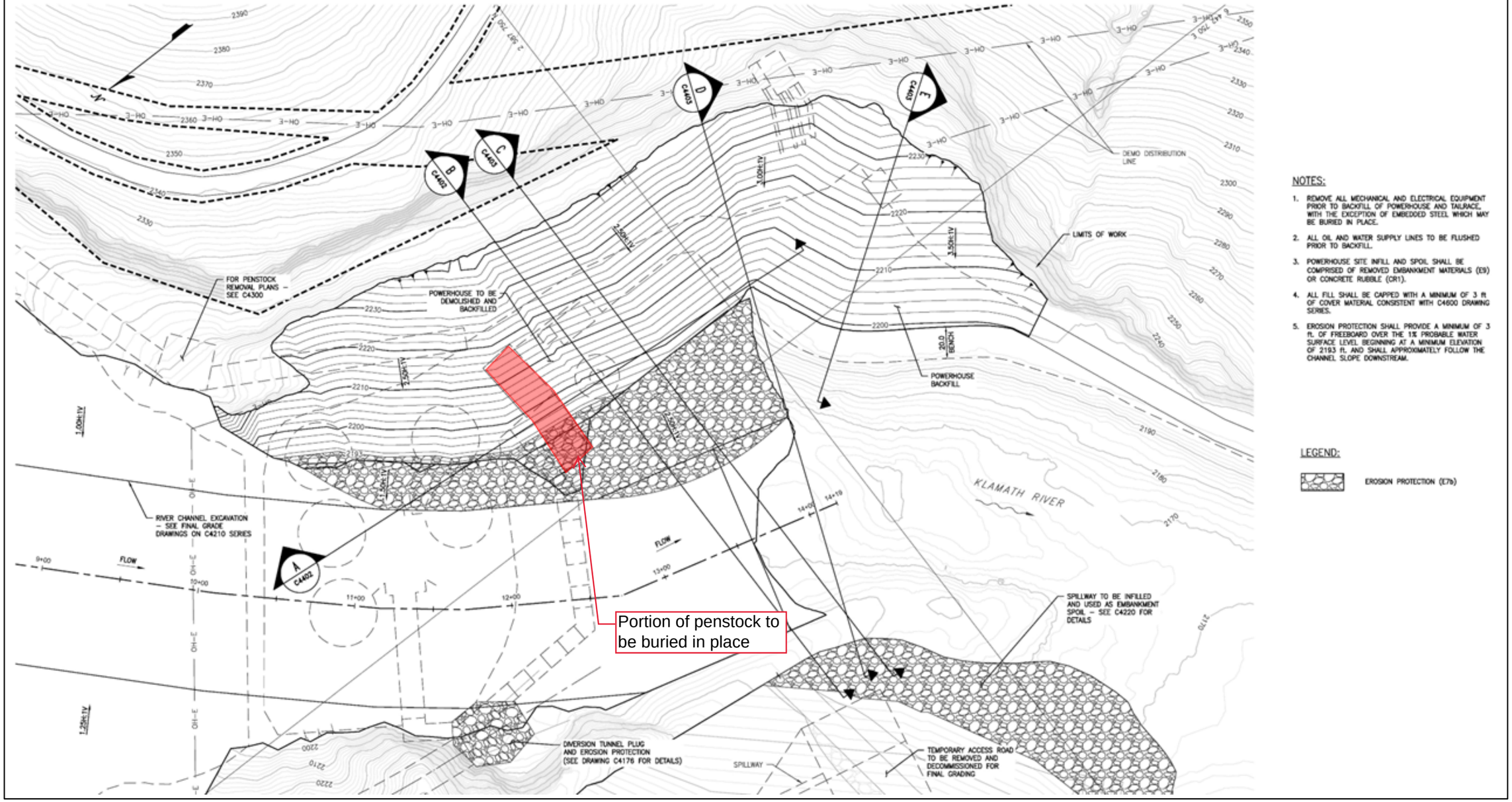
CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION (CEII)

REDACTED

FIGURE A-17 IRON GATE DIVERSION TUNNEL AND GATE SHAFT

FIGURE A-18A IRON GATE DIVERSION TUNNEL INTAKE STRUCTURE

FIGURE A-18B IRON GATE DIVERSION TUNNEL INTAKE STRUCTURE

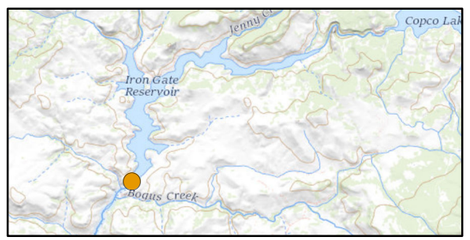


NOTES:

1. REMOVE ALL MECHANICAL AND ELECTRICAL EQUIPMENT PRIOR TO BACKFILL OF POWERHOUSE AND TAILRACE, WITH THE EXCEPTION OF EMBEDDED STEEL WHICH MAY BE BURIED IN PLACE.
2. ALL OIL AND WATER SUPPLY LINES TO BE FLUSHED PRIOR TO BACKFILL.
3. POWERHOUSE SITE INFILL AND SPOIL SHALL BE COMPRISED OF REMOVED EMBANKMENT MATERIALS (E9) OR CONCRETE RUBBLE (CR1).
4. ALL FILL SHALL BE CAPPED WITH A MINIMUM OF 3 ft OF COVER MATERIAL CONSISTENT WITH C4600 DRAWING SERIES.
5. EROSION PROTECTION SHALL PROVIDE A MINIMUM OF 3 ft. OF FREEBOARD OVER THE 1% PROBABLE WATER SURFACE LEVEL BEGINNING AT A MINIMUM ELEVATION OF 2193 ft. AND SHALL APPROXIMATELY FOLLOW THE CHANNEL SLOPE DOWNSTREAM.

LEGEND:

EROSION PROTECTION (E7b)



Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet
2.Data Sources: Main Drawing: Knight Piesold 100 Design
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

LEGEND:

EROSION PROTECTION (E7b)

Lower Klamath Project
FIGURE A-19
Iron Gate Powerhouse Penstock

KLAMATH RIVER RENEWAL CORPORATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

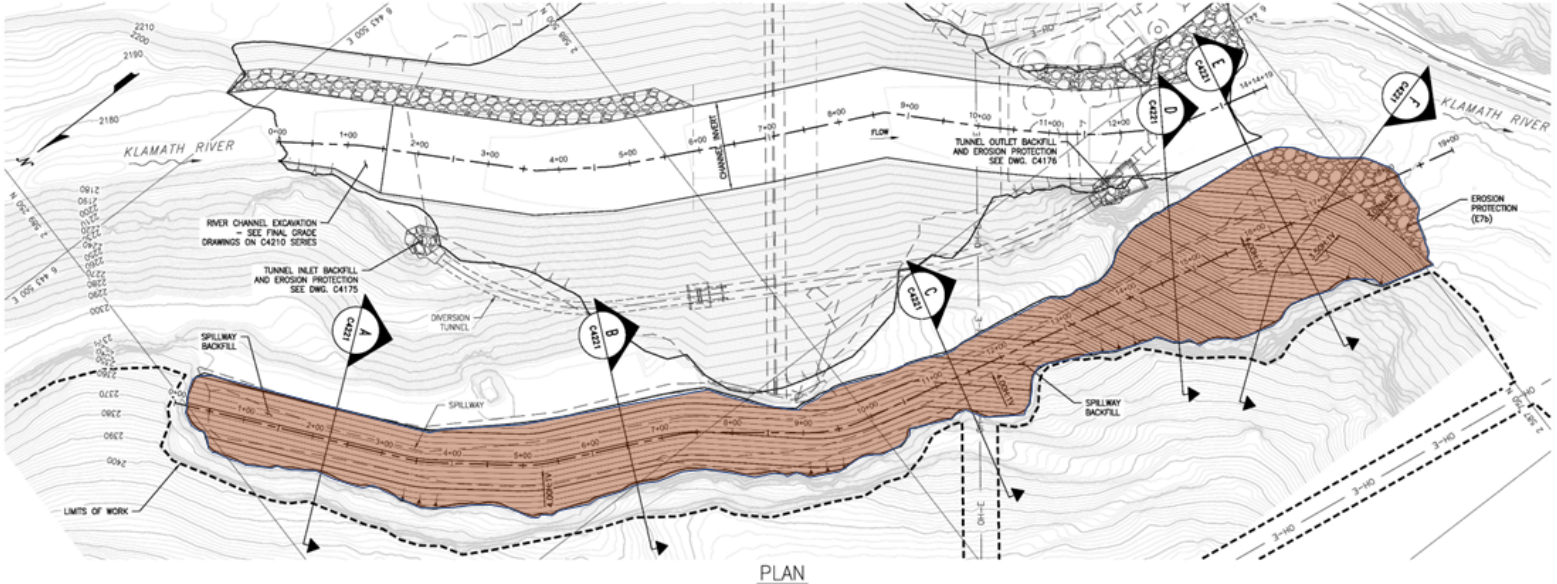
PUBLIC VERSION

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

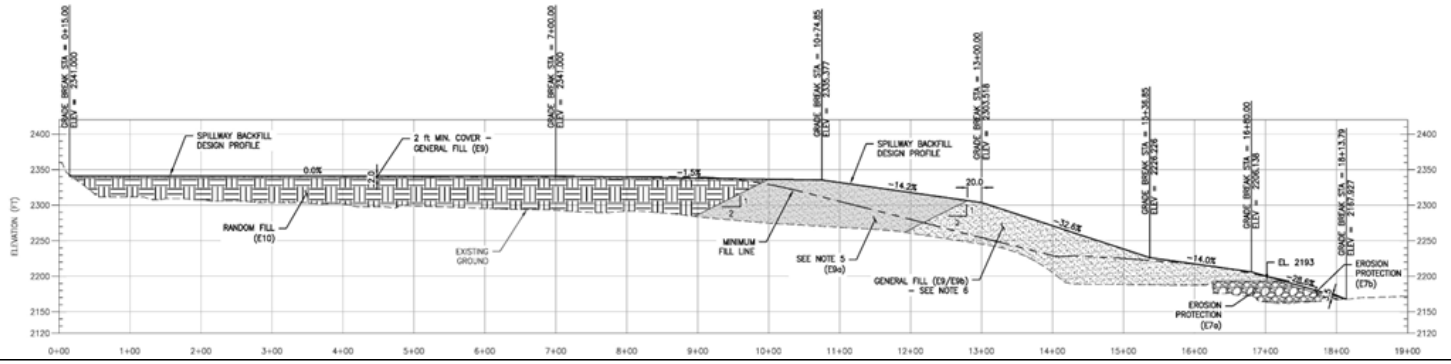
FIGURE A-20 IRON GATE POWERHOUSE AND TAILRACE

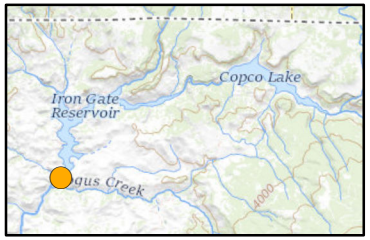


PLAN
1" = 80'

NOTES:

1. SPILLWAY INFILL MATERIALS SHALL BE COMPRISED OF REMOVED EMBANKMENT MATERIALS.
2. SPILLWAY INFILL SHALL BE INITIAL EMBANKMENT MATERIAL SPOIL AREA FOR THE UPPER PORTIONS OF THE EMBANKMENT REMOVAL.
3. PLACE EROSION PROTECTION ON DOWNSTREAM TOE OF SPILLWAY FILL ONCE COMPLETE, UPON FINAL GRADING, OR USE RIPRAP REMOVED FROM DOWNSTREAM FACE OF DAM DURING STAGE 1 FOR THE LOWER SPILLWAY LIFTS TO ESTABLISH RIPRAPPED TOE.
4. FOR EROSION AND SEDIMENT CONTROL DETAILS SEE DRAWING SERIES C4215 TO C4219.
5. WHERE E9a IS PLACED IN THE SPILLWAY DISPOSAL SITE, IT SHALL BE PLACED IN ACCORDANCE WITH THE LIFT THICKNESS AND COMPACTION REQUIREMENTS OF E9.
6. OPTION TO UTILIZE GENERAL FILL ((E9) OR (E9b) AS COVER MATERIAL. FINAL STABILIZATION TREATMENTS DIFFER AS PER TECHNICAL SPECIFICATION 31 25 00.





Notes

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2.Data Sources: Main Drawing: Knight Piesold 100 Design
3. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

LEGEND:

- GENERAL FILL (E9/E9a/E9b)
- RANDOM FILL (E10)
- EROSION PROTECTION (E7a/E7b)
- SPILLWAY AREA

Lower Klamath Project

Figure A-21
Iron Gate Spillway Disposal Site

KLAMATH RIVER RENEWAL CORPORATION

PRELIMINARY DESIGN (NOT FOR CONSTRUCTION)

Appendix B

Oregon Remaining Facilities and Operations Plan

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project
FERC Project No. 14803

Oregon Remaining Facilities and Operations Plan

Klamath River Renewal Corporation
2001 Addison Street, Suite 317
Berkeley, CA 94704

Prepared by:
Camas LLC
680 G Street, Suite C
Jacksonville, OR 97530

December 2022

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Table of Contents

List of Tables

Appendices

1.0 Introduction

This Oregon Remaining Facilities and Operations Plan is a subplan of the Remaining Facilities Plan that will be implemented as part of the Proposed Action for the Lower Klamath Project.

1.1 Purpose of Management Plan

The purpose of the Oregon Remaining Facilities and Operations Plan is to identify the non-operational structures that will remain on-site following completion of the Proposed Action, identify potential water quality impacts associated with the presence of these structures, and state the measures the Renewal Corporation will implement to protect water quality from potential impacts associated with the presence of these structures.

1.2 Relationship to Other Management Plans

The Oregon Remaining Facilities and Operations Plan is supported by elements of the following management plans for effective implementation: Recreation Facilities Plan, Erosion and Sediment Control Plan, and the Waste Disposal and Hazardous Materials Management Plan. So as to not duplicate information, elements from these other management plans are not repeated herein but are, where appropriate, referred to in this Oregon Remaining Facilities and Operations Plan.

2.0 Potential Water Quality Impact and Proposed Measures

2.1 Identification of Remaining Facilities

For the purposes of this plan, remaining structures are defined as structures or features affiliated with the Lower Klamath Project within the Limits of Work. These structures may consist of buildings, utilities, portions of foundations, and other non-operational structural components associated with the J.C. Boyle dam. This plan discusses waste disposal sites only to the extent they overlap with remaining structures (e.g., powerhouse tailrace); all other future placement and management of material will be implemented in accordance with related management plans including the Waste Disposal and Hazardous Materials Management Plan.

2.1.1 Structures

The structures to remain on-site following completion of the Proposed Action at the J.C. Boyle Development are presented in Table 2.2 . The table includes the following information pertaining to the structures to remain on-site: project structure name, type of material left on-site, and the permanent measures taken by the Renewal Corporation to reduce water quality impacts based on the condition it was left in (buried, capped, graded, etc.). An overview map of the J.C. Boyle Development is included in Figure A-1.

2.1.2 Recreation Facilities

Topsy Campground (operated by the Bureau of Land Management) will remain within the J.C. Boyle Development. The day use, camping areas, and fishing platform will be retained, while the boat ramp and floating dock will be removed (Figure A-2). A detailed description of the Topsy Campground is included in the Recreation Facilities Plan.

2.2 Measures to Protect Water Quality Impacts

The Renewal Corporation evaluated the potential for erosion or sediment runoff to surface waters and identified the presence of hazardous materials associated with structures to remain on-site.

2.2.1 Erosion and Sediment Control Protection

Erosion and sediment control temporary best management practices (BMPs) installed during construction are presented in the site-specific Erosion and Sediment Control Plan required as part of the Oregon Department of Environmental Quality National Pollutant Discharge Elimination System Construction Stormwater General Permit No. 1200-C.

Following demolition and the final placement of material within remaining facilities (if applicable), permanent BMPs will be installed for final stabilization. Monitoring and reporting required as part of the Erosion and Sediment Control Plan will be conducted to achieve final stabilization.

As part of the permanent BMPs, drainage swales may be constructed. Swales will be lined with Type E8 Bedding Material and/or Type E7a Erosion Protection in areas where the slope is greater than 5% and will be unlined and hydroseeded in areas where the slope is less than or equal to 5% (Knight Piésold 2022).

2.2.1.1 Fill Materials Definitions

Table 2.1 contains definitions of the material types used throughout the Project as fill and cap materials.

Table 2.1. Definitions of Construction Fill Materials.

TYPE	DESCRIPTION	DEFINITION
E2	Pipe Zone	Gravel and sand, particles ranging from 1.5 in. to the #200 Sieve (0.0030 in.), low to no fines content, sourced offsite.
E4	Select Fill	Cobbles, Gravel, and Sand, particles ranging from 4 in. to the #200 Sieve (0.0030 in.), low to no fines content, sourced offsite.
E7	Erosion Protection	Boulders and Cobbles, particles ranging from +50 in. to 3 in., material subdivided into three classifications E7a/b/c, each with minimum D85, D50 and D15 values, sourced from existing erosion protection at the dam sites, or talus material from nearby borrow areas within limits of work.

TYPE	DESCRIPTION	DEFINITION
E8	Bedding Material	Cobbles and Gravel, particles ranging from 12 in. to 1 in., low to no fines content, sourced from offsite.
E9	General Fill	Boulders, Cobbles, Gravel, Sand and Fines, particles ranging from 20 in. to silt and clay, up to 30% fines content, sourced from on-site excavations or nearby borrow areas within limits of work.
E10	Random Fill	Overburden, Rocks or Organics, no gradation requirements, sourced from on-site excavations.
CR1	Concrete Rubble	Particles ranging from 36 in. to the #200 Sieve (0.0030 in.), with up to 30% fines content, steel reinforcement to remain concrete, sourced from demolition of on-site concrete structures.

Notes:

- The proposed offsite source is the Knife River Corporation.
- Definitions provided by Knight Piésold (C. Vos), December 4, 2020.

2.2.2 Hazardous Material Survey

In April 2019, a Hazardous Material Building Survey (HMBS) was conducted for the J.C. Boyle Development (AECOM 2019). Another survey was conducted in October 2020 (Entek 2020) to supplement and confirm the April 2019 HMBS and is included in the Waste Disposal and Hazardous Materials Management Plan.

Hazardous materials, including but not limited to asbestos, lead-based paint, fuel, lubricating oil, and batteries, identified as part of these evaluations will be removed by the Renewal Corporation from structures that will remain on-site. Non-friable asbestos is not considered a hazardous waste and if it is attached to a structure that will be entombed, it will be buried in place. Non-hazardous and hazardous materials will be disposed of by the Renewal Corporation in accordance with the Waste Disposal and Hazardous Materials Management Plan, following the abatement specifications as presented by Entek (2020).

Table 2.2. J.C. Boyle Remaining Structures

PROJECT STRUCTURE	MATERIAL TO REMAIN	PERMANENT MEASURES TO REDUCE WATER QUALITY IMPACTS	FIGURES
Recreation			
• Topsy Campground	• Day use, camping areas, and fishing platform. (BLM)	These structures will not be disturbed as part of the Proposed Action. They will remain in their current use, maintained and operated by the Bureau of Land Management, and therefore do not require permanent measures. Water-dependent structures (boat ramp and floating dock) will be removed and disturbed land will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-2
Dam Spillway and Intake Structure			
• Dam spillway and intake	• Concrete and embedded steel below El. 3,785.2 ft	All concrete and embedded steel below El. 3785.2 ft will be buried using Type E9 General Fill. The surrounding area will be graded at 3.5H:1V toward the river to the northeast and to 4H:1V toward the river to the northwest. Type 2 and Type 3 drainage swales will be used at the top of the slope and mid-slope to divert drainage off the graded slope. Drainage swales will have energy dissipaters on the ends to prevent erosion, and all disturbed areas will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-3
Timber Bridge			
• Timber bridge	• Steel sheet piles	The timber bridge will be removed, and the sheet piles in the abutments will be cut to a minimum of 2 ft below grade and covered with local fill.	Figure A-4

PROJECT STRUCTURE	MATERIAL TO REMAIN	PERMANENT MEASURES TO REDUCE WATER QUALITY IMPACTS	FIGURES
Power Canal Headgate Structure			
• Power canal headgate	• Concrete and embedded steel below El. 3,772 ft	All concrete and embedded steel as well as the siphon pipe below El. 3,772 ft will be buried by at least 2 ft using Type E9/E9b General Fill. The drainage ditch below the spillway siphon leading to the Klamath River will be filled with Type E9/E9b General Fill, and the hillslope below the headgate will be graded to 3H:1V and will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-5
Power Canal			
• Power canal	• Concrete canal walls and floor	Free-standing concrete walls on the uphill side of the power canal will be laid down and covered with a minimum of 2 ft of Type E9 General Fill as specified in the Definite Decommissioning Plan (Section 3.1.1.2). The free-standing concrete walls on the downhill side will be removed. Shotcrete concrete walls will be left in place. Small (1.5 ft diameter) and large (3 ft diameter) culverts will be placed at topographic low points for drainage, with energy dissipators on the downhill (outlet) end of each culvert. Energy dissipators will be made of Type E8 Bedding Material for small culverts and Type E7a Erosion Protection for large culverts. The canal area will be graded to a 2% slope and will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-6
Forebay			
• Forebay	• Concrete and embedded steel below El. 3,777 ft	All concrete and attached steel below El. 3,778 ft will be buried with at least 2 ft of Type E9/E9b General Fill, which will block the tunnel entrance on the inlet (forebay) side. The area will be graded to create a final surface that will drain away from the upstream power canal area and downstream powerhouse tunnel to the forebay spillway, to direct surface drainage to the backfilled spillway scour hole (see *Oregon Waste Disposal and Management Plan* for scour hole details). All graded areas will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-7

PROJECT STRUCTURE	MATERIAL TO REMAIN	PERMANENT MEASURES TO REDUCE WATER QUALITY IMPACTS	FIGURES
Powerhouse Penstocks			
• Powerhouse penstocks	• Concrete footings of the penstocks below the penstock spring line	The outlet of the tunnel leading to the powerhouse penstocks will be blocked with Type CR1 Concrete Rubble and capped with Type E9/E9b General Fill. All concrete below the penstock spring line will be buried using local fill material to meet the Type E9/E9b General Fill material specifications. Each footing area will be graded to the natural slope and will undergo final stabilization as described in Section 2.2.1 of this plan.	Figure A-8a Figure A-8b
Powerhouse and Tailrace			
• Powerhouse • Tailrace	• Powerhouse concrete, embedded steel, and attached steel (conduit, trays, etc.) below El. 3,340 ft • Concrete of lowest penstock anchor below El. 3,450 ft • Penstock access roads • Asphalt road surface	All concrete below El. 3,340 ft will be left in place, filled to the extent possible with Type E9 General Fill and covered with a minimum of 2 ft of Type E9/E9b General Fill. Disturbed areas will be graded with a 0.5% slope toward the Klamath River and will undergo final stabilization as described in Section 2.2.1 of this plan and as specified in the Definite Decommissioning Plan (Section 3.1.2.3). Existing access road swales will be inspected and rehabilitated to convey runoff to the existing culverts.	Figure A-9

Source: Knight Piésold 2022

3.0 Reporting

By April 1 and April 15 of each year, the Renewal Corporation will prepare and submit to the Oregon Department of Environmental Quality and the Federal Energy Regulatory Commission, respectively, an Annual Compliance Report which will include information pertaining to implementation of the Oregon Remaining Facilities and Operations Plan.

4.0 References

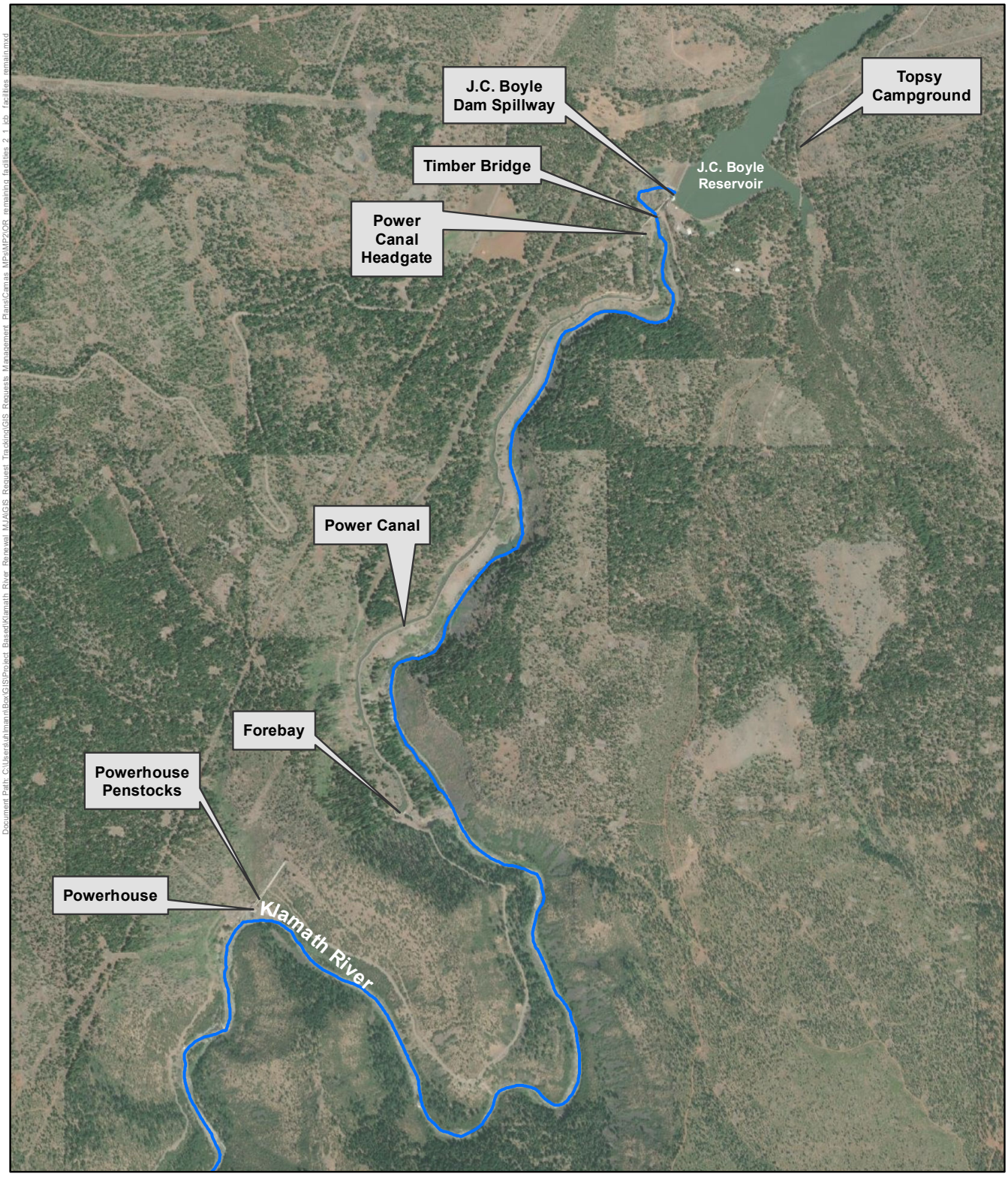
AECOM. 2019. J.C. Boyle Development, Hazardous Building Materials Survey. April.

Entek. 2020. Hazardous Materials Survey Final Report for J.C. Boyle Development. October.

Knight Piésold. 2022. 100% Design Completion Drawings. Prepared for the Klamath River Renewal Project. June.

Appendix A

Figures



N

0 0.1 0.2 0.4 Miles

(At original document size of 8.5x11)
1:25,000

Notes

1. Coordinate System: NAD83 HARN StatePlane California I FIPS 0401 Feet

2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Lower Klamath Project

Figure A-1: Overview Map of the J.C. Boyle Development

KLAMATH RIVER RENEWAL CORPORATION

NOT FOR CONSTRUCTION

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project

Figure A-2:
Topsy Campground

N

0 20 40 80 120 160 200 240 Feet

Legend

- Features to be Removed
- Topsy Campground (to be Retained)

NOT FOR CONSTRUCTION

Notes

1. Coordinate System: NAD 1983 2011 StatePlane California I FIPS 0401 Ft US

2. Data Sources: Topsy Campground: 100 Design Drawings

3. Main Map Imagery: GMA Hydrology Inc.; Inset Background: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed August, 2021.

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION

(CEII)

REDACTED

FIGURE A-3 J.C. BOYLE DAM SPILLWAY AND INTAKE STRUCTURE

KLAMATH RIVER RENEWAL CORPORATION

Lower Klamath Project

Figure A-4:
J.C. Boyle Timber Bridge

N

0 20 40 80 Feet

Legend

J.C. Boyle Timber Bridge

NOT FOR CONSTRUCTION

Notes

1. Coordinate System: NAD 1983 2011 StatePlane California I FIPS 0401 Ft US

2. Main Map Imagery: GMA Hydrology Inc.; Inset Background: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed August, 2021.

Document Path: C:\Users\uhlmannBox\GIS\Project_Based\Klamath_River_Renewal_MJA\GIS_Request_Tracking\GIS_Requests_Management_Plans\Camas_MPs\MP2\OR_remaining_facilities_4_9_timber_bridge.mxd

CRITICAL ENERGY/ELECTRIC INFRASTRUCTURE INFORMATION (CEII)

REDACTED

FIGURE A-5 J.C. BOYLE POWER CANAL HEADGATE STRUCTURE

FIGURE A-6 J.C. BOYLE POWER CANAL

FIGURE A-7 J.C. BOYLE FOREBAY

FIGURE A-8A J.C. BOYLE POWERHOUSE PENSTOCKS

FIGURE A-8B J.C. BOYLE POWERHOUSE PENSTOCKS

FIGURE A-9 J.C. BOYLE POWERHOUSE AND TAILRACE

Appendix C

Consultation Record

Consultation Record

Remaining Facilities Plan			
Sub-Plan	**Agency**	**Date of Agency Plan Submittal**	**Agency Comments Received Date**
California Remaining Facilities Plan	Oregon Department of Fish and Wildlife	August 4, 2021	No Comments Received
	California Department of Fish and Wildlife	January 14, 2021 August 5, 2021	January 28, 2021 August 18, 2021
	California State Water Resources Control Board	January 14, 2021 August 4, 2021 July 7, 2022	No Comments Received No Comments Received No Comments Received
	California Department of Water Resources	August 4, 2021	No Comments Received
Oregon Remaining Facilities Plan	Oregon Department of Fish and Wildlife	January 14, 2021 August 9, 2021	February 3, 2021 September 8, 2021
	Oregon Department of Environmental Quality	January 14, 2021 August 5, 2021 August 23, 2022	February 3, 2021 September 8, 2021 October 14, 2022 (DEQ Conditional Approval)
	Bureau of Land Management – Klamath Falls	January 15, 2021	No Comments Received No Comments Received