US Army Corps of Engineers
Seattle District

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification

US Army Corps of Engineers
Regulatory Branch
P.O. Box 3755
Seattle, WA 98124-3755
Telephone: (206) 764-6848
ATTN: David Martin,
Section Chief

WA Department of Ecology
SEA Program
P.O. Box 47600
Olympia, WA 98504-7600
Telephone: (360) 407-6068
ATTN: SEA Program,
Federal Permit Coordinator

Public Notice Date: April 22, 2016
Expiration Date: May 22, 2016

Reference No.: NWS-2015-0158
Name: Yakama Nation Fisheries

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S., as described below and shown on the enclosed drawings dated June 11, 2015.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws.

APPLICANT: Yakama Nation Fisheries
Attention: Mr. William Sharp
401 Fort Road
Toppenish, Washington 98948
Telephone: (509) 865-5121 x 6355

AGENT: Inter-Fluve, Inc.
Attention: Mr. Colin MacLaren and Mr. Josh Epstein
501 Portway Avenue, Suite 101
Hood River, Oregon 97031
Telephone: (541) 386-9003

LOCATION: The Underwood In-Lieu fishing site boat basin at the confluence of the White Salmon River and Columbia River at White Salmon, Skamania County, Washington. In-Lieu fishing sites provide access to traditional Tribal fishing grounds submerged or destroyed as a result of the construction of the Bonneville Dam.

WORK: Yakama Nation Fisheries proposes to dredge up to 13,000 cubic yards of accreted sediment to re-establish a navigation channel at the Underwood In-Lieu fishing site. The dredged material would be placed in an adjacent 1.91-acre riparian and alluvial wetland complex where it would be graded to drain freely (to prevent fish stranding) and planted with native trees, shrubs, and herbaceous vegetation to enhance aquatic functions in the area and improve riparian habitat along the lower White Salmon River. The newly dredged navigation channel would be armored with rock to maintain navigational capacity. Approximately 800 cubic yards of riprap would be placed at the mouth of the channel. Existing riprap along Highway 14 would be left in place to stabilize the south bank of the channel. To maintain stability on the north bank of the navigation channel and provide rearing habitat for juvenile

fish, nine-inch-minus river rock would be placed on the bank at a 25-degree slope. A small, 0.013-acre pond would be filled with river rock.

PURPOSE: The applicant's stated purpose is to reestablish boat access to the Underwood In-Lieu fishing site boat basin. Access was blocked in 2011 by sediment released during removal of the Condit Dam.

DREDGED MATERIAL MANAGEMENT PROGRAM (DMMP):

Dredged Material Testing: The proposed dredged material has been evaluated according to the procedures specified by the DMMP, a multi-agency program to evaluate dredged material in Washington State. DMMP evaluations may include both chemical and biological testing of sediments. For this project, the DMMP agencies used existing chemical and biological testing data to determine that all 13,000 cubic yards are suitable for unconfined like-on-like placement in the vicinity of the dredge site. The DMMP agencies also determined that the sediment to be exposed by dredging meets the State of Washington anti-degradation standard. The Tier 1 evaluation memo is available from the Corps, Seattle District, Dredged Material Management Office.

Disposal Site Use Conditions: The following standard site-use conditions will be specified by the Corps and the Washington Department of Natural Resources as part of the Federal/State permitting processes: (1) disposal operations must not interfere with Indian Treaty fishing at the disposal site, including gill nets and other fishing gear; (2) the permittee must coordinate any nighttime disposal with Seattle District's Regulatory Branch; and (3) approval must be received from the District Engineer prior to conducting nighttime disposal. Other special conditions may be added as a result of comments received in response to this public notice.

ADDITIONAL INFORMATION: The wetland boundaries shown on the project drawings have not yet been verified by the Corps. If the Corps determines the boundaries of the wetland are substantially inaccurate, a new public notice could be published.

MITIGATION: No compensatory mitigation is proposed for this project.

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 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 endangered or any designated critical habitat. After receipt of comments from this public notice, the Corps will evaluate the potential impacts to proposed and/or listed species and their critical habitat.

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. If the Corps determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps' final determination relative to project impacts and the need for mitigation measures is subject to review by, and coordination with, the NMFS.

CULTURAL RESOURCES: The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. Historic properties are recorded within the proposed project area. The Corps is assessing the potential effects of the proposed work on cultural resources. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments in response to this public

notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, 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 – CORPS: 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 Corps 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 U.S.

SOURCE OF FILL MATERIAL: The source of material to be placed in the riparian/wetland complex would be the accumulated sediment dredged from the Underwood In-Lieu site channel.

EVALUATION – ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or Tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

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. 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 whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

Copies of this public notice which have been mailed or otherwise physically distributed feature project drawings in black and white. The electronic version features those drawings in color, which we think more accurately communicates the scope of project impacts. To access the electronic version of this public notice, go to the Seattle

NWS-2015-0158, Yakama Nation Fisheries

District's web page at http://www.nws.usace.army.mil/ and under the heading Open Public Comment Periods select Regulatory Public Notices. Recently-issued public notices are listed in chronological order of the date of issuance. Select and view the listing for this project.

CORPS COMMENTS: All e-mail comments should be sent to david.j.martin@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Mr. David Martin, P.O. Box 3755, Seattle, Washington 98124-3755. 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.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington 98504-7600, or e-mail to ecyrefedpermits@ecy.wa.gov.

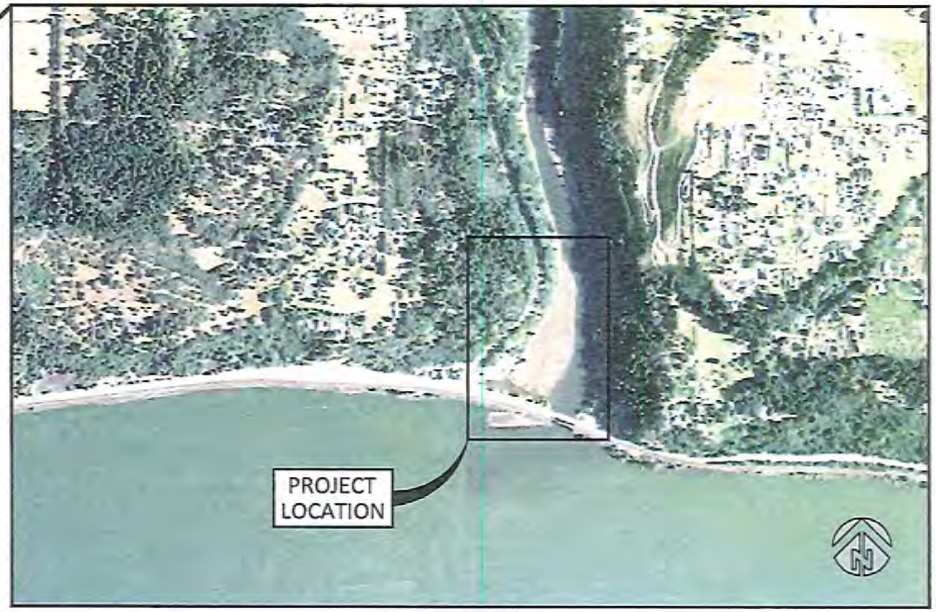
To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Yakama Nation Fisheries; NWS-2015-158.

Encl: Figures (12)

UNDERWOOD IN-LIEU
NAVIGATION CHANNEL PROJECT
PERMIT DRAWINGS - JUNE 2015

LOCATION MAP
STATE OF WASHINGTON

VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

COORDINATES:
LATITUDE: 45°43'46.99' NORTH
LONGITUDE: 121°03'22.22" WEST

SECTION 23, TOWNSHIP 3N, RANGE 10E

WATERBODY: WHITE SALMON RIVER
TRIBUTARY OF: COLUMBIA RIVER

SHEET LIST

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6 PROPOSED CONDITIONS
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8 SOUTH BANK BOAT ACCESS PLAN AND SECTION
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11 PLANTING PLAN
12 PLANTING DETAILS

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NO.	BY	DATE	REVISION DESCRIPTION

DF, LK	MC, GJ, JE	---
DRAWN	DESIGNED	CHECKED
---	6/11/15	---
APPROVED	DATE	PROJECT

CONFEDERATED BANDS AND TRIBES OF THE YAKAMA NATION
UNDERWOOD IN-LIEU
NAVIGATION CHANNEL PROJECT

inter·fluve
501 Portway Avenue, Suite 101
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COVER, SHEET INDEX AND VICINITY MAP

SHEET 1 OF 12

THE CONTRACTOR SHALL ATTEND A MANDATORY PRE-BID SITE MEETING.

THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH OWNER AND OWNER'S REPRESENTATIVE PRIOR TO MOBILIZING TO SITE AND BEGINNING CONSTRUCTION.

ALL WORK SHALL CONFORM TO THE CURRENT EDITIONS OF STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), AND LOCAL STANDARDS UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT WILL PREVAIL.

WDFW IN-WATER WORK PERIODS

WORK SHALL OCCUR DURING THE PERMITTED IN-WATER WORK PERIOD STATED IN THE HYDRAULIC PROJECT APPROVAL.

EXISTING DATA

TOPOGRAPHIC DATA WAS COLLECTED BY INTER-FLUVE USING RTK AND GPS IN JULY, 2014.

BATHYMETRIC DATA FROM 2011 (BEFORE THE BREACH OF CONDIT DAM) AND 2012 (IMMEDIATELY AFTER THE BREACH OF CONDIT DAM) PROVIDED BY USGS.

HORIZONTAL DATUM: STATE PLANE NAD83 WASHINGTON SOUTH
VERTICAL DATUM: NAVD88

HYDROLOGY INFORMATION PROVIDED BY USGS.

HYDRAULIC MODELING BY INTER-FLUVE USING USACE HEC-RAS (4.1.0). MODEL CALIBRATED USING SURVEYED WATER SURFACE ELEVATIONS.

GIS DATA INCLUDING: AERIAL PHOTOGRAPHY, LIDAR, FISH USE, SURFACE SOILS INFORMATION, LAND OWNERSHIP, AND TRANSPORTATION ROUTES PROVIDED BY VARIOUS AGENCIES.

SOILS

SUBSURFACE SOILS ARE EXPECTED TO BE SILT, SAND AND GRAVEL. CONTRACTOR SHALL CONDUCT OWN INVESTIGATIONS IF ADDITIONAL DATA IS REQUIRED AT NO ADDITIONAL COST.

NON-SOIL DEBRIS MAY BE PRESENT IN EXCAVATION AREAS.

UTILITIES

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVING UTILITIES LOCATED PRIOR TO CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL CALL (800-424-5555) FOR UTILITY LOCATE PRIOR TO CONSTRUCTION

THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE AFFECTED UTILITY SERVICE TO REPORT ANY DAMAGED OR DESTROYED UTILITIES.

THE CONTRACTOR SHALL PROVIDE EQUIPMENT AND LABOR TO AID THE EFFECTED UTILITY SERVICE IN REPAIRING DAMAGED OR DESTROYED UTILITIES AT NO ADDITIONAL COST.

CONSTRUCTION STAKING

OWNER'S REPRESENTATIVE WILL PROVIDE STAKING OF PROJECT LIMITS, GRADE STAKES, AND ELEVATION CONTROL POINTS. SOME FIELD ADJUSTMENTS TO THE LINES AND GRADES ARE TO BE EXPECTED.

CONTRACTOR SHALL MEET WITH THE OWNER AND OWNER'S REPRESENTATIVE TO DEFINE AND MARK LIMITS OF DISTURBANCE PRIOR TO MOBILIZATION OF EQUIPMENT OR MATERIALS ONTO THE SITE.

THE CONTRACTOR SHALL REPLACE DAMAGED OR DESTROYED CONSTRUCTION STAKES AT NO ADDITIONAL COST.

CONSTRUCTION MATERIALS

ALL MATERIALS QUANTITIES ARE BASED ON IN-PLACE CONDITION DETERMINED BY A PRE-PROJECT CONDITION SURVEY COMPARED AGAINST A PROJECT CONDITION SURVEY

CONTRACTOR SHALL ALLOW FOR EXPANSION OF EXCAVATED MATERIAL AND COMPACTION OF PLACED MATERIAL AT NO ADDITIONAL MEASURE OR COST. MEASUREMENT AND PAYMENT SHALL NOT BE BASED ON WEIGHT TICKETS OR TRUCK MEASURE WITHOUT PRIOR WRITTEN APPROVAL.

ANY EXCESS MATERIAL SHALL BE STOCKPILED NEATLY IN AN APPROVED LOCATION OF THE STOCKPILE AND STAGING AREA. AT COMPLETION OF WORK, THE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE FOR LEGAL DISPOSAL.

CONSTRUCTION ACCESS/TRAFFIC CONTROL

CONTRACTOR SHALL SUBMIT AN ACCESS, STAGING, AND STOCKPILE PLAN TO THE OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO MOBILIZATION.

PUBLIC ACCESS TO/ALONG ROADWAYS SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR OBTAINING ANY REQUIRED TRAFFIC CONTROL OR ACCESS PERMITS.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PROVIDING ANY REQUIRED TRAFFIC CONTROL INCLUDING, BUT NOT LIMITED TO, SIGNAGE AND FLAGGERS.

ALL SAPLINGS AND TREES TO BE TRANSPLANTED OR REMOVED SHALL BE CLEARLY MARKED AND APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE.

ALL EQUIPMENT, MATERIALS AND PERSONNEL SHALL REMAIN WITHIN THE LIMITS OF DISTURBANCE.

THE CONTRACTOR SHALL KEEP THE WORK AREAS IN NEAT CONDITION, FREE OF DEBRIS AND LITTER FOR THE DURATION OF THE PROJECT.

ALL DISTURBED AREAS INCLUDING ROADS, DRIVEWAYS AND ACCESS ROUTES SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AND RE-VEGETATED PER PLANS.

CONSTRUCTION ACCESS/TRAFFIC CONTROL CONTINUED

ALL DISTURBED AREAS OUTSIDE THE LIMITS OF DISTURBANCE SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST.

EROSION CONTROL

CONTRACTOR SHALL BE SOLELY RESPONSIBLE AT OWN EXPENSE FOR PROVIDING AND MAINTAINING ALL NECESSARY EROSION CONTROL FACILITIES TO COMPLY WITH APPLICABLE EROSION CONTROL REGULATIONS AND TO MAINTAIN CLEAN ACCESS ROUTES.

FISH RESCUE

ALL FISH RESCUE EFFORTS SHALL BE SUPERVISED BY A YAKAMA NATION FISHERIES (YNF)/AQUATIC BIOLOGIST EXPERIENCED WITH THE COLLECTION AND HANDLING OF SALMONID FISHES FROM CONSTRUCTION SITES.

ALL FISH TRAPPED IN RESIDUAL POOLS WITHIN THE PROJECT AREA WILL BE CAREFULLY COLLECTED BY SEINE AND/OR DIP NETS AND PLACED IN CLEAN TRANSFER CONTAINERS WITH ADEQUATE VOLUME OF FRESH RIVER WATER.

CAPTURED FISH SHALL BE IMMEDIATELY RELEASED INTO RIVER AT AREAS SELECTED BY A YNF BIOLOGIST.

FISH SHALL BE EXCLUDED FROM THE WORK AREA WITH SIENE NET OR OTHER METHOD APPROVED BY WDFW AND YNF PERSONNEL.

Summary of Quantities

	Cut (CY)	Fill (CY)	Area (ac)
Navigation Channel (above OHW)	3	11	0.01
Navigation Channel (below OHW)	12988	113	1.37
Riparian Enhancement Area (above OHW)	0	8517	1.91
Riparian Enhancement Area (below OHW)	3	1889	0.71
Nuisance Mosquito Pond (above OHW)	5	75	0.05
Nuisance Mosquito Pond (below OHW)	0	2349	0.24
Overall (above OHW)	8	8603	1.97
Overall (below OHW)	12991	4351	2.32

Summary of Materials

Materials	Cut (CY)	Fill (CY)	Area (ac)
Riprap (above OHW)	0	3	0.01
Riprap (below OHW)	0	809	0.05
Imported River Rock (above OHW)	0	0	0
Imported River Rock (below OHW)	0	1740	0.41

Preliminary
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NWS-2015-00158

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DF, LK — DRAWN | MC, GJ, JE — DESIGNED | — CHECKED
— APPROVED | 6/11/15 DATE | — PROJECT

CONFEDERATED BANDS AND TRIBES OF THE YAKAMA NATION
UNDERWOOD IN-LIEU
NAVIGATION CHANNEL PROJECT

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GENERAL NOTES

SHEET 2 OF 12

EROSION/SEDIMENTATION CONTROL (ESC) PLAN

THE EROSION AND SEDIMENT CONTROL (ESC) PLAN PROVIDED IS FOR INFORMATIONAL PURPOSES ONLY, THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING EROSION CONTROL MEASURES TO COMPLY WITH APPLICABLE REGULATIONS.

THE RECOMMENDATIONS FOR AN ESC PLAN INCLUDED HEREIN WILL PROVIDE A GUIDELINE FOR THE CONTRACTOR TO DEVELOP AND IMPLEMENT AN ESC PLAN.

A. THE IMPLEMENTATION OF AN ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.

B. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

C. ESC FACILITIES AS APPROXIMATELY SHOWN ON THIS PLAN ARE TO BE CONSTRUCTED PRIOR TO CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER SURFACE WATERS, THE DRAINAGE SYSTEM, OR VIOLATE APPLICABLE WATER STANDARDS.

D. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED AT NO ADDITIONAL COST FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.

E. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

F. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.

G. STABILIZED CONSTRUCTION ENTRANCES AND ADDITIONAL MEASURES MAY BE REQUIRED AND SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT TO ENSURE ALL ACCESS ROADS ARE KEPT CLEAN AT NO ADDITIONAL COST.

INSPECTION AND MAINTENANCE

ALL ESC FACILITIES SHALL BE INSPECTED, MAINTAINED, AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL ESC FACILITIES SHALL BE INSPECTED DAILY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD AND AFTER EVENTS EXCEEDING 2 HOURS DURATION.

CONTRACTOR'S ESC RECORD

WEEKLY REPORTS SUMMARIZING THE SCOPE OF INSPECTIONS, THE PERSONNEL CONDUCTING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE CONTRACTOR'S EROSION AND SEDIMENT CONTROL PLAN, AND ACTIONS TAKEN AS A RESULT OF THESE INSPECTIONS SHALL BE PREPARED AND RETAINED ON SITE BY THE CONTRACTOR. IN ADDITION, A RECORD OF THE FOLLOWING DATES SHALL BE INCLUDED IN THE REPORTS:

1. WHEN MAJOR GRADING ACTIVITIES OCCUR.
2. DATES OF RAINFALL EVENTS EITHER EXCEEDING 2 HOURS DURATION OR MORE THAN 0.5 INCHES/24 HOURS.
3. WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON SITE, OR ON A PORTION OF THE SITE.
4. WHEN STABILIZATION MEASURES ARE INITIATED FOR PORTIONS OF THE SITE.
5. ESC RECORDS SHALL BE MADE AVAILABLE TO THE OWNER AND OWNER'S REPRESENTATIVE ON REQUEST AND SHALL BE PROVIDED FOR REVIEW AND APPROVAL PRIOR TO APPLICATION FOR PAYMENT.

STABILIZE SOILS AND PROTECT SLOPES

FROM MAY 1 THROUGH SEPTEMBER 30, ALL EXPOSED SOILS SHALL BE PROTECTED FROM EROSION BY MULCHING, HYDROSEED COVERING, OR OTHER APPROVED MEASURES WITHIN THREE DAYS OF GRADING. FROM OCTOBER 1 THROUGH APRIL 30, ALL EXPOSED SOILS MUST BE PROTECTED WITHIN 2 DAYS OF GRADING. SOILS SHALL BE STABILIZED BEFORE A WORK SHUTDOWN, HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. SOIL STOCKPILINGS MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES. HYDROSEED ALL DISTURBED AREAS AS SOON AS PRACTICAL NOT INDICATED IN THE CONTRACT DOCUMENTS FOR OTHER PERMANENT STABILIZATION MEASURES.

DESIGN, CONSTRUCT, AND PHASE CUT AND FILL SLOPES IN A MANNER THAT WILL MINIMIZE EROSION. REDUCE SLOPE VELOCITIES ON DISTURBED SLOPES BY PROVIDING TEMPORARY BARRIERS. STORMWATER FROM OFF SITE SHOULD BE HANDLED SEPARATELY FROM STORMWATER GENERATED ON SITE.

AFTER FINAL SITE STABILIZATION

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BEST MANAGEMENT PRACTICES (BPMs) ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED FROM THE SITE OR INCORPORATED INTO FINISHED GRADING. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.

RIVER DIVERSION

DEWATERING OF IN-CHANNEL WORK AREA(S) SHALL OCCUR CONCURRENT WITH FISH RESCUE. CONTRACTOR SHALL COORDINATE WITH THE YNF FOR FISH RESCUE. CONTRACTOR SHALL PROVIDE YNF AMPLE TIME TO SCHEDULE FISH RESCUE. IF DIVERSION FAILS DUE TO CONTRACTOR NEGLIGENCE, FISH RESCUE SHALL BE REPEATED BY YNF CREWS AT CONTRACTOR'S EXPENSE.

IF ADDITIONAL PUMPING IS REQUIRED TO DEWATER DURING CONSTRUCTION, PUMPED DISCHARGE SHALL RELEASE SEDIMENT-LADEN WATER AT AN UPLAND DISCHARGE LOCATION IN A MANNER THAT DOES NOT CAUSE EROSION, CONTAMINATION OR INCREASE TURBIDITY OF SURFACE WATERS. (SEE CONSTRUCTION DEWATERING).

OWNER'S REPRESENTATIVE SHALL APPROVE DEWATERING DISCHARGE LOCATION PRIOR TO IMPLEMENTATION.

CONSTRUCTION DEWATERING

CONTRACTOR SHALL PERFORM CONSTRUCTION DEWATERING IN SUCH A MANNER AS TO AVOID THE RELEASE OF SEDIMENT-LADEN WATER TO SURFACE WATERS. SEDIMENT LADEN WATER MAY BE PUMPED TO AN UPLAND DISCHARGE LOCATION AND ALLOWED TO INFILTRATE INTO THE GROUND. IF THIS METHOD IS NOT SUFFICIENT TO PREVENT RETURN OF TURBID WATER TO THE RIVER, A 'DIRT-BAG' OR SEDIMENT RETENTION STRUCTURE MAY BE REQUIRED AS NECESSARY TO COMPLY WITH LAWS AND PERMIT REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL PROVIDE VISQUEEN OR GEOTEXTILE LINER OR PLYWOOD OR METAL PLATING AS NECESSARY TO DISSIPATE PUMP DISCHARGE JET TO PREVENT EROSION.

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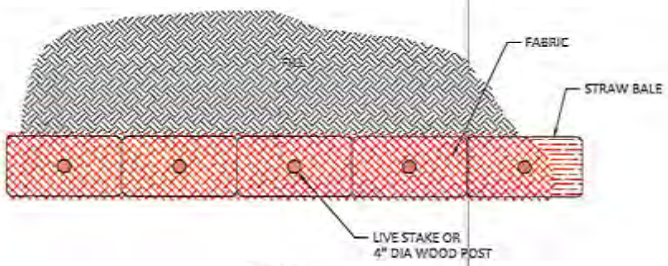
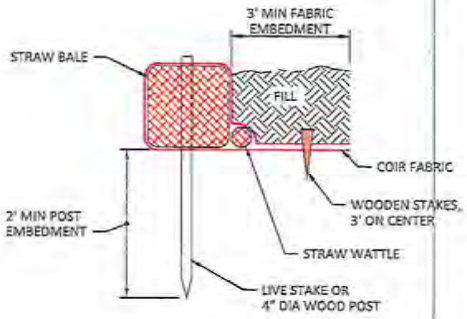
EROSION CONTROL GENERAL NOTES

SHEET 3 OF 12



PLAN



CROSS SECTION VIEW

NOTES:

1. LENGTHWISE OVERLAP OF BIODEGRADABLE WOVEN COIR FABRIC SECTIONS SHALL BE 5' MINIMUM WITH A MINIMUM OF 2 STAKES PLACED IN THE OVERLAPPING SECTION.

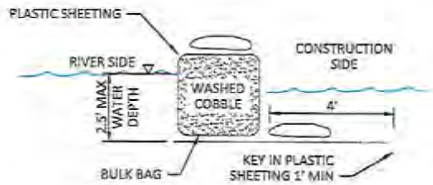
2. THE CONSTRUCTION SEQUENCE FOR FILL PLACEMENT IS AS FOLLOWS:

   A. CONSTRUCT STRAW BALE FILL CONTAINMENT AROUND PERIMETER OF FILL AREA AS SHOWN ABOVE.

   B. PLACE DREDGED MATERIAL WITHIN THE CONTAINED AREA. ALLOW TIME FOR SETTLING AND DRAINAGE PRIOR PLACEMENT OF ADDITIONAL LAYERS.

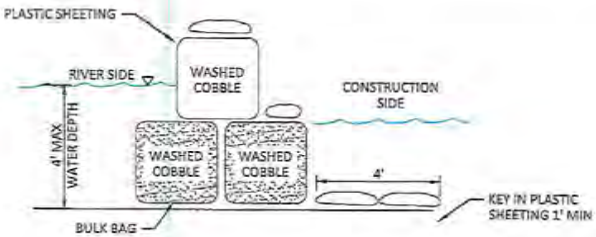
1/4 DETAIL - COIR WRAPPED STRAW BALE FOR FILL CONTAINMENT

NOT TO SCALE



COFFERDAM SECTION IN WATER DEPTHS LESS THAN 2.5'

NOT TO SCALE



COFFERDAM SECTION IN WATER DEPTHS GREATER THAN 2.5'

NOT TO SCALE

BULK BAG NOTES:

1. BULK BAG COFFERDAM SHALL BE CONSTRUCTED OF SEVERAL UNITS OF BULK BAGS FILLED WITH WASHED GRAVEL, AND ABUTTED SIDE BY SIDE TO CREATE A ROW THAT ISOLATES THE CONSTRUCTION SITE.

2. IF WATER DEPTH EXCEEDS 85% OF THE BULK BAG HEIGHT, AN ADDITIONAL TOP ROW OF BULK BAGS SHALL BE INSTALLED, SUPPORTED BY TWO BOTTOM ROWS OF BULK BAGS. BULK BAG COFFERDAM SHALL BE SEALED BY COVERING THE COFFERDAM WITH PLASTIC SHEETING HELD IN PLACE BY STANDARD SANDBAGS PLACED IN ROWS ON TOP OF COFFERDAM, AND AT TOE OF COFFERDAM.

3. THE PLASTIC SHEETING SHALL BE DRAPED ALONG THE CHANNEL BOTTOM ON BOTH SIDES OF THE COFFERDAM WITH OUTWARD EDGE OF SHEETING MINIMUM 4-FEET FROM TOE OF COFFERDAM. THE DRAPED PORTION OF PLASTIC SHEETING SHALL BE PINNED TO THE CHANNEL BED BY MINIMUM TWO ROWS OF STANDARD SANDBAGS.

4. THE CONSTRUCTION SIDE EDGE OF PLASTIC SHEETING SHALL BE TOED INTO THE CHANNEL BED MINIMUM 1-FT. TOEING IN THE OUTWARD EDGE OF PLASTIC SHEETING SHALL OCCUR AFTER THE COFFERDAM IS CLOSED TO PREVENT TURBIDITY RELEASE TO THE WATERWAY.

5. THE TERMINAL ENDS OF BULK BAG COFFERDAM, WHERE IT CONNECTS TO CHANNEL BANK OR HIGH GROUND, SHALL BE SEALED WITH PLASTIC SHEETING AND STANDARD SANDBAGS.

6. BULK BAGS SHALL BE CUBE-SHAPED POLYPROPYLENE WOVEN FABRIC BAGS WITH FULLY OPEN TOP, FLAT BOTTOM, FOUR LOOPS, MINIMUM 2-TON WEIGHT CAPACITY, MINIMUM 5:1 SAFETY FACTOR.

7. PLASTIC SHEETING SHALL BE MINIMUM 6-MIL THICKNESS. ROLL LENGTH SHALL BE LONG ENOUGH TO ENSURE THAT ENTIRE LENGTH OF COFFERDAM WILL BE COVERED WITHOUT A SEAM. MINIMUM 12-FT WIDE ROLL SHALL BE USED FOR SINGLE LAYER BULK BAG COFFERDAM. MINIMUM 16-FT WIDE ROLL SHALL BE USED FOR 2-LAYER STACKED BULK BAG COFFERDAM.

8. BULK BAG COFFERDAM SHALL BE COMPLETELY REMOVED AFTER CONSTRUCTION IS COMPLETED AND TURBIDITY HAS BEEN REMOVED.SYNTHETIC MATERIALS SHALL BE LEGALLY DISPOSED OF OFFSITE. WASHED GRAVEL FILL SHALL BE HAULED FROM SITE. SPILLING WASHED GRAVEL BULK BAG FILL INTO THE RIVER OR BOAT CHANNEL SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION OF OWNER.

9. MEASUREMENT AND PAYMENT FOR BULK BAG COFFERDAM, SAND BAGS, PLASTIC SHEETING, WASHED GRAVEL PLACEMENT, MAINTENANCE AND REMOVAL OF ALL MATERIALS SHALL BE INCIDENTAL TO THE LUMP SUM ALL INCLUSIVE COST FOR DIVERSION AND DEWATERING.

10. ALTERNATE COFFERDAM MATERIALS AND CONFIGURATIONS MAY BE ALLOWED BUT SHALL NOT BE IMPLEMENTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND/OR VENDOR CUT SHEETS FOR SUBSTITUTIONS.

2/4 BULK BAG COFFERDAM

NOT TO SCALE

Preliminary
Not for Construction

NWS-2015-00158

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DRAWN	DESIGNED	CHECKED
—	6/11/15	—
APPROVED	DATE	PROJECT

CONFEDERATED BANDS AND TRIBES OF THE YAKAMA NATION
UNDERWOOD IN-LIEU
NAVIGATION CHANNEL PROJECT

inter·fluve

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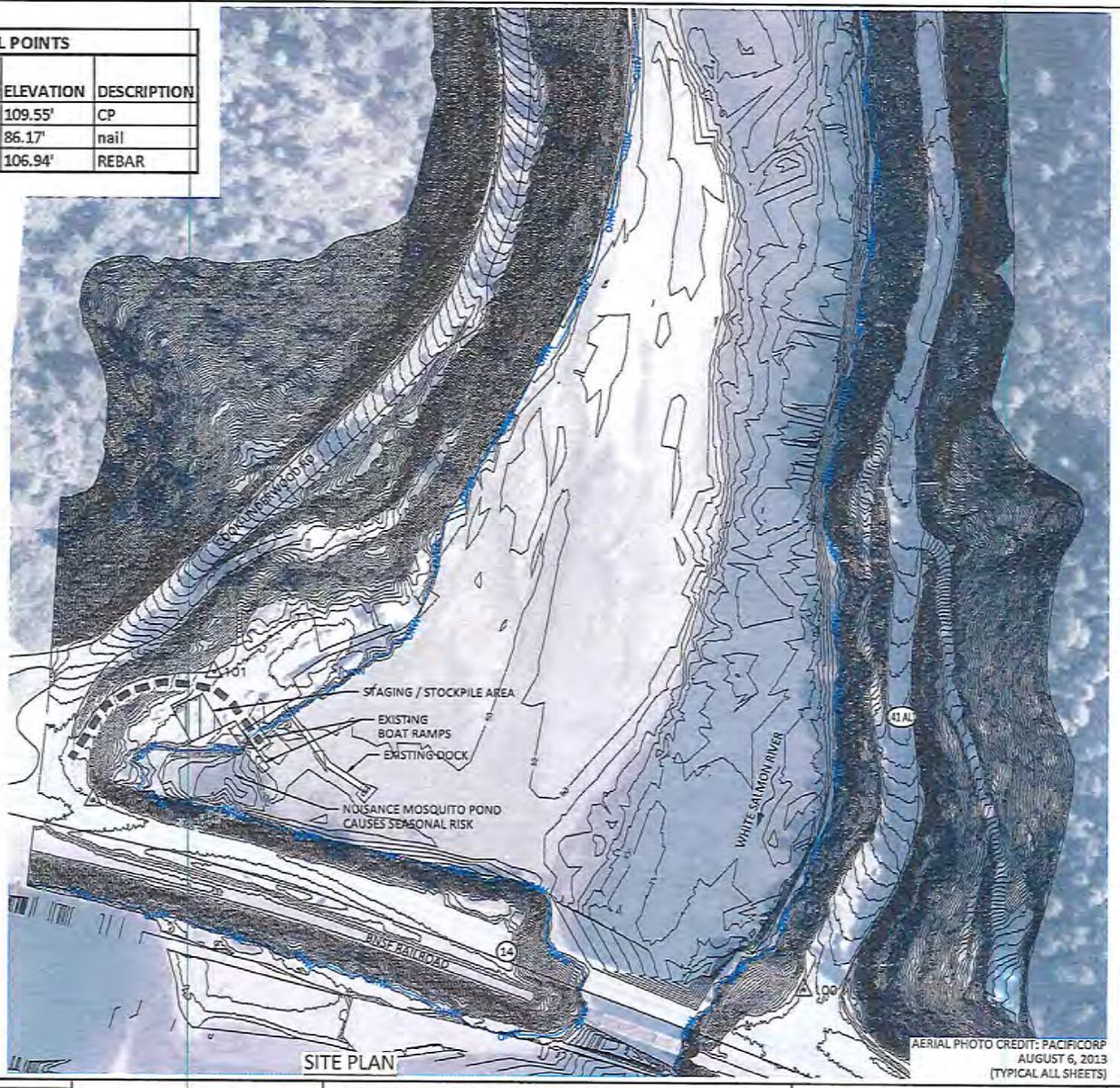
EROSION CONTROL DETAILS

SHEET 4 OF 12

SURVEY CONTROL POINTS				
POINT NUMBER	EASTING	NORTHING	ELEVATION	DESCRIPTION
100	1379687.62'	145832.18'	109.55'	CP
101	1378912.13'	146252.45'	86.17'	nail
103	1378754.09'	146080.26'	106.94'	REBAR



SITE PLAN

AERIAL PHOTO CREDIT: PACIFICORP
AUGUST 6, 2013
(TYPICAL ALL SHEETS)

0 100 200
SCALE IN FEET

LEGEND

- EXISTING ACCESS ROAD
- STAGING/STOCKPILE AREA
- EXISTING CONTOURS (1' INTERVAL)
- 101 SURVEY CONTROL POINT

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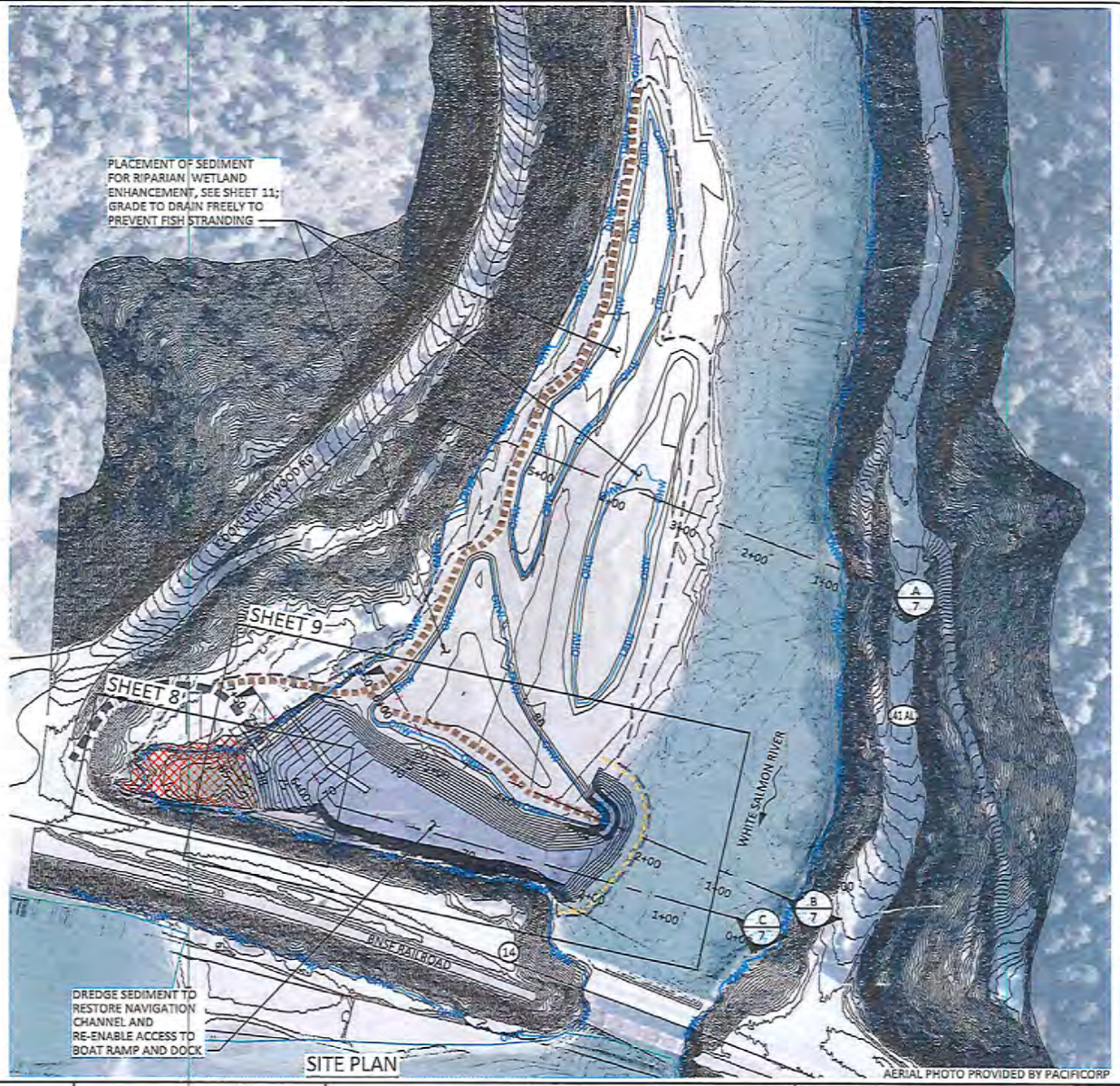
EXISTING CONDITIONS, ACCESS, STAGING AND SURVEY CONTROL

SHEET 5 OF 12



SITE PLAN

AERIAL PHOTO PROVIDED BY PACIFICORP

0 150 300

SCALE IN FEET

LEGEND

- EXISTING ACCESS ROAD
- TEMPORARY ACCESS ROAD
- OHW — ORDINARY HIGH WATER
- STAGING/STOCKPILE AREA
- EXISTING RIVER CHANNEL
- PROPOSED BOAT ACCESS CHANNEL
- PROPOSED FILL OF MOSQUITO POND
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED CONTOURS (1' INTERVAL)
- LIMITS OF DISTURBANCE

Preliminary
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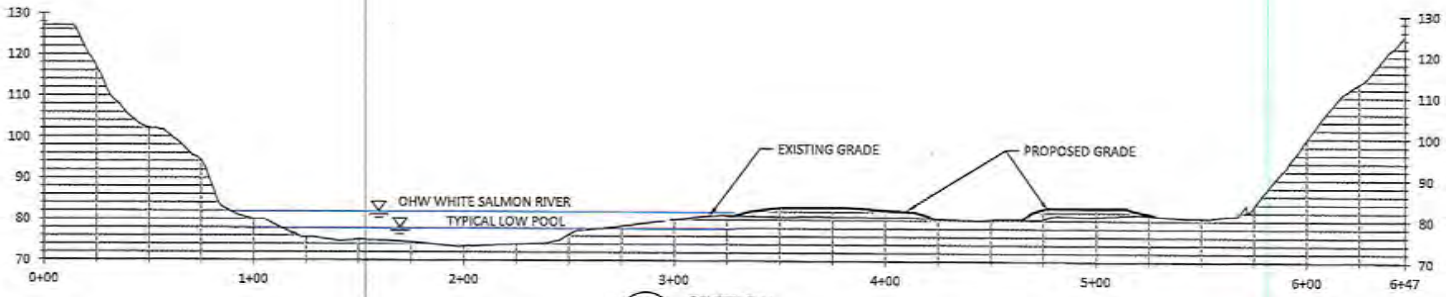
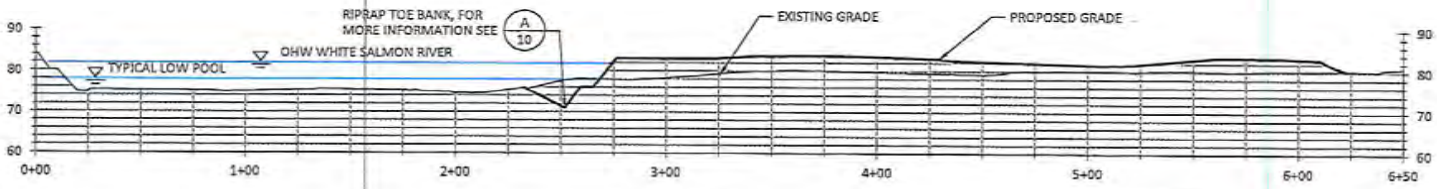
PROPOSED CONDITIONS

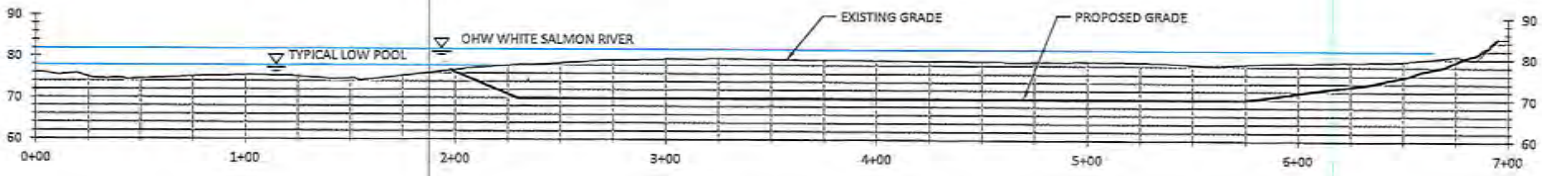
SHEET 6 OF 12



A/7 SECTION
SCALE: HORIZ 1"=60'
VERT 1"=30'



B/7 SECTION
SCALE: HORIZ 1"=60'
VERT 1"=30'



C/7 SECTION
SCALE: HORIZ 1"=60'
VERT 1"=30'

Preliminary
Not for Construction

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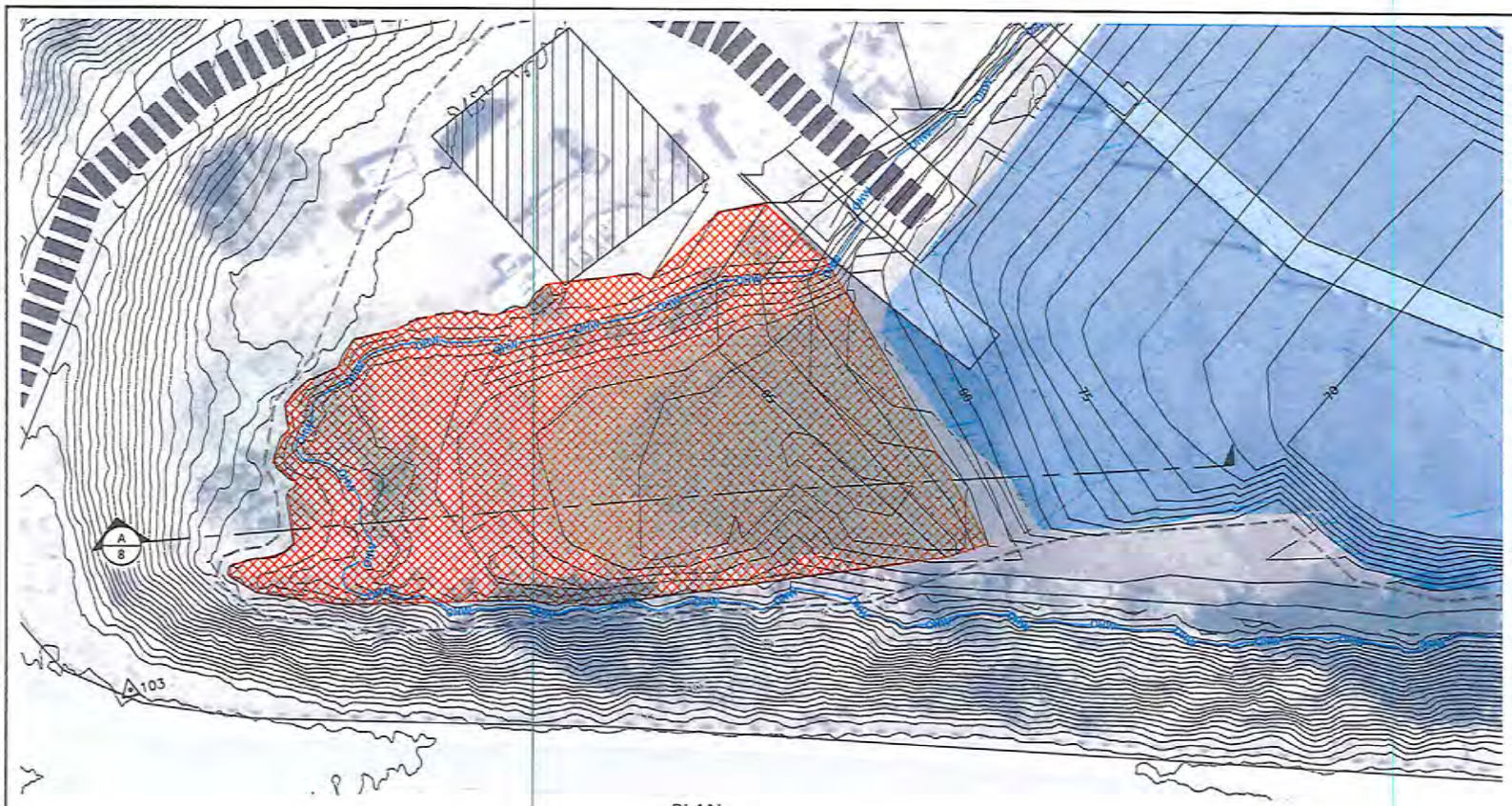
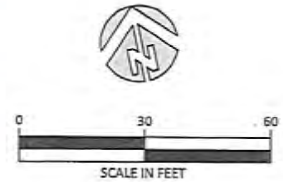
PROPOSED SITE SECTIONS

SHEET 7 OF 12

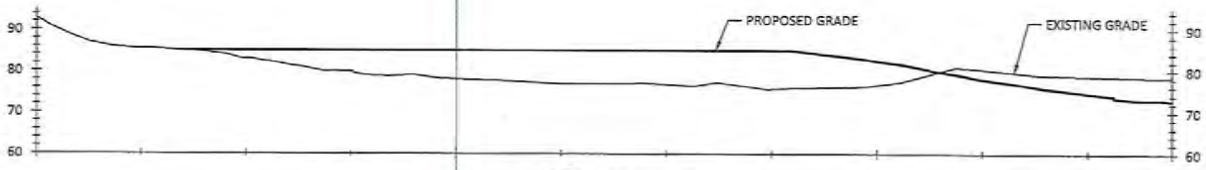


PLAN
1"=30'



LEGEND

- EXISTING ACCESS ROAD
- OHW — ORDINARY HIGH WATER
- STAGING/STOCKPILE AREA
- PROPOSED BOAT ACCESS CHANNEL
- PROPOSED FILL OF MOSQUITO POND
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED CONTOURS (1' INTERVAL)
- LIMITS OF DISTURBANCE



A/8 SECTION
1"=30'

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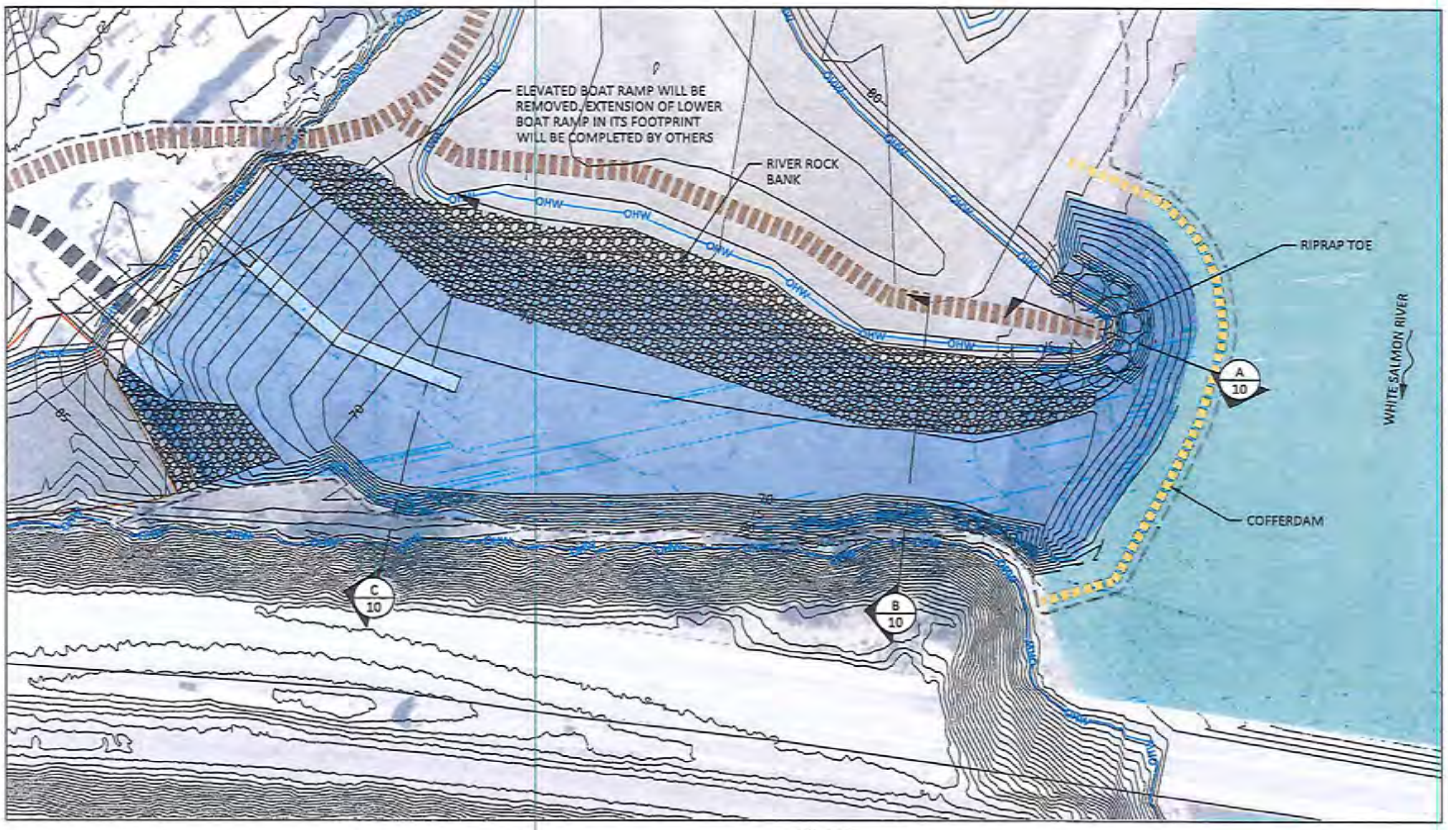
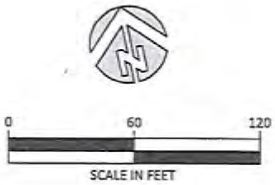
SOUTH BANK BOAT ACCESS
PLAN AND SECTION

SHEET 8 OF 12



PLAN
1"=60'



LEGEND

- EXISTING ACCESS ROAD
- TEMPORARY ACCESS ROAD
- OHW — ORDINARY HIGH WATER
- EXISTING RIVER CHANNEL
- PROPOSED BOAT ACCESS CHANNEL
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED CONTOURS (1' INTERVAL)
- LIMITS OF DISTURBANCE

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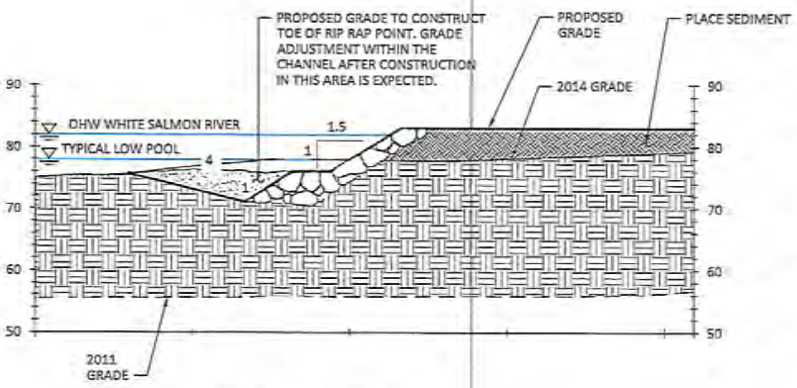
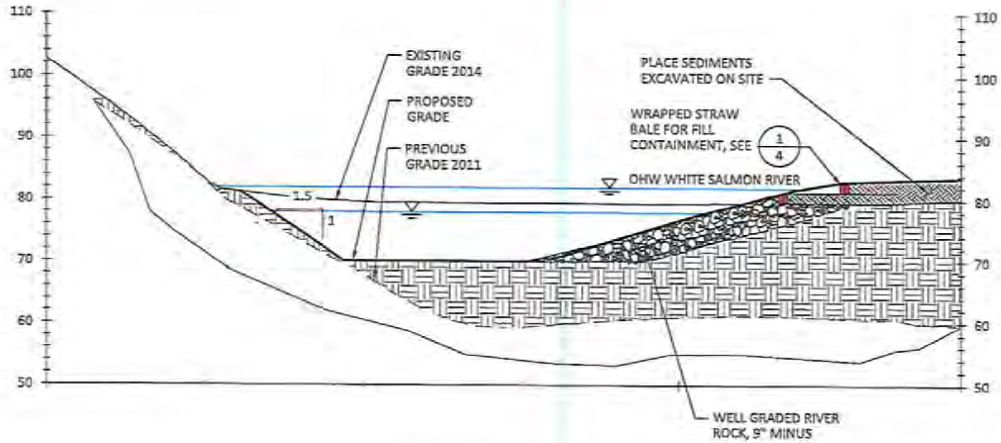
NAVIGATION CHANNEL PLAN

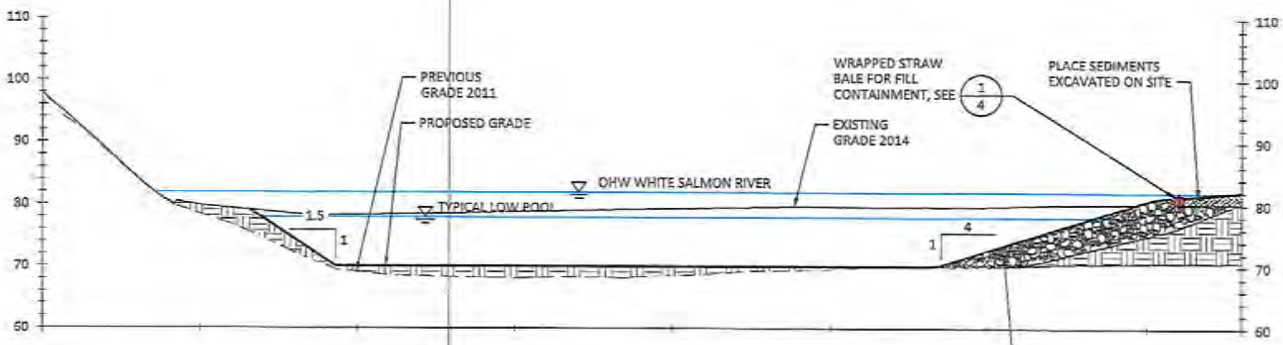
SHEET 9 OF 12



A 10 SECTION 1"=20'



B 10 SECTION 1"=20'



C 10 SECTION 1"=20'

Preliminary
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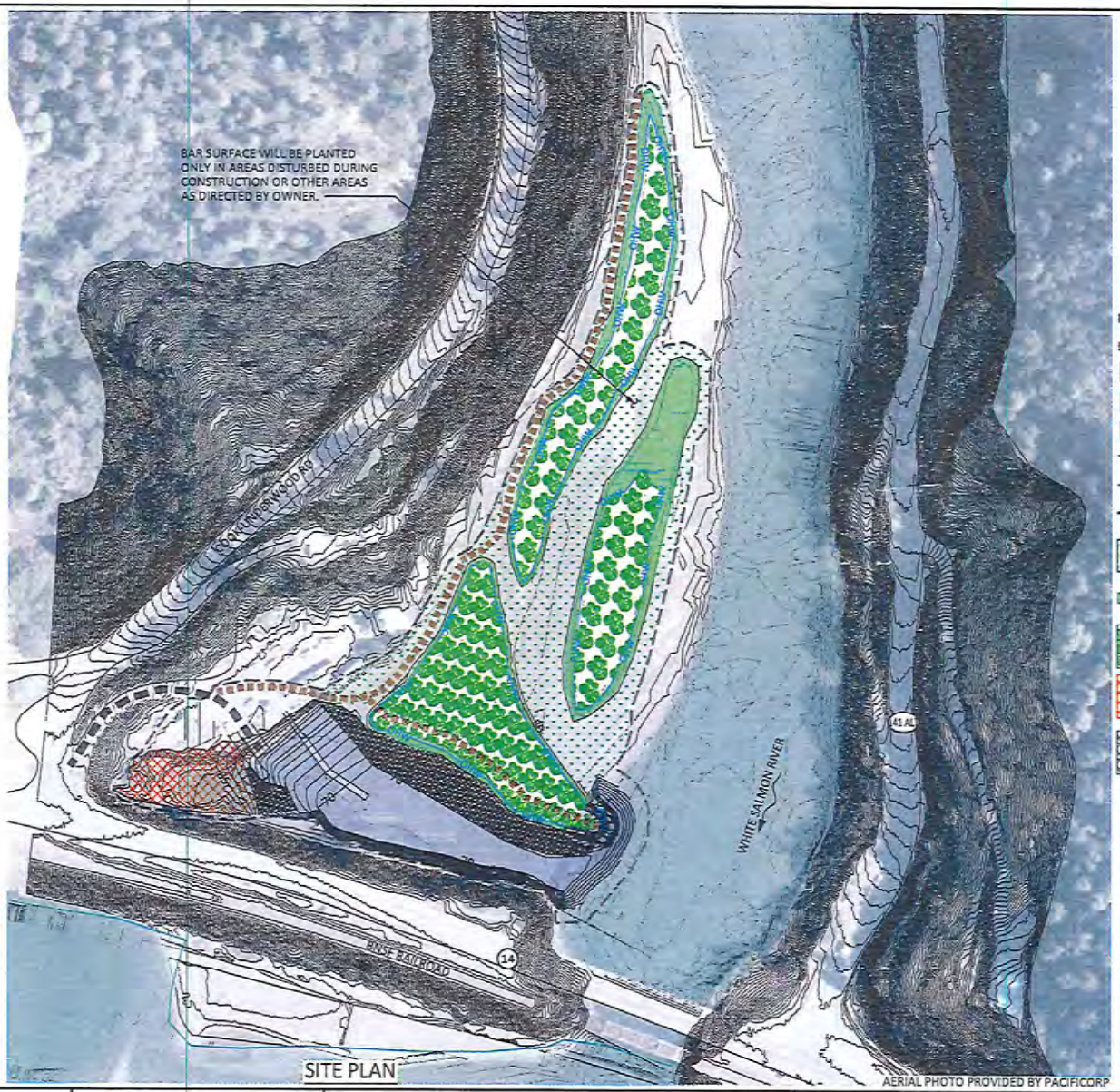
NAVIGATION CHANNEL SECTIONS

SHEET 10 OF 12



SITE PLAN

AERIAL PHOTO PROVIDED BY PACIFICORP

0 100 200

SCALE IN FEET

LEGEND

- EXISTING ACCESS ROAD
- TEMPORARY ACCESS ROAD
- STAGING/STOCKPILE AREA
- EXISTING RIVER CHANNEL
- PROPOSED BOAT ACCESS CHANNEL
- EXISTING CONTOURS (1' INTERVAL)
- PROPOSED CONTOURS (1' INTERVAL)
- LIMITS OF DISTURBANCE
- PLANTING ZONE 1 SHRUBS AND WETLAND VEGETATION
- PLANTING ZONE 2 SHRUBS AND SMALL TREES
- PLANTING ZONE 3 TREES AND SHRUBS
- PLANTING ZONE 4 PROPOSED FILL OF MOSQUITO POND SEED MIX
- RIVER ROCK BANK

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PLANTING PLAN

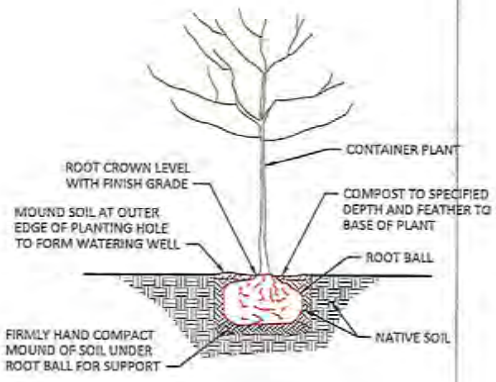
SHEET 11 OF 12

Seed Mix - Zone 1 (1.73 ac)	
Botanical Name	Common Name
Carex interrupta	greenfruit sedge
Carex nudata	torrent sedge
Carex microptera	Small-winged sedge
Carex nebracensis	Nebraska sedge
Juncus balticus	Baltic rush
Beckmannia syzygachne	American sloughgrass
Glyceria elata	tall mannagrass
Scirpus microcarpus	small-fruit bulrush
Eleocharis palustris	common spikerush

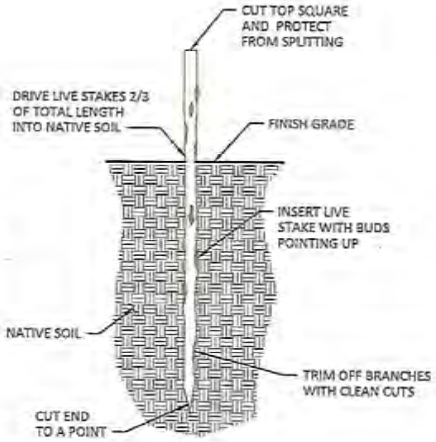
Vegetation Plantings - Zone 2 (0.77 ac)		
Form	Botanical Name	Common Name
Shrub	*Cornus alba*	dogwood
	Spiraea douglasii	Douglas spirea
	Salix scouleriana	Scouler's willow
	Salix exigua	Coyote willow
Trees	*Populus balsamifera*	cottonwood
	Alnus rubra	alder

Seed Mix - Zones 2 and 3 (2.69 ac)	
Botanical Name	Common Name
Carex nudata	torrent sedge
Juncus effusus	soft rush
Hordeum brachyantherum	meadow barley
Glyceria elata	tall mannagrass

Vegetation Plantings - Zone 3 (1.92 ac)		
Form	Botanical Name	Common Name
Shrub	*Rubus spectabilis*	salmonberry
	Sambucus racemosa	red elderberry
	Physocarpos capitatus	Pacific ninebark
	Cornus alba	dogwood
	Spiraea douglasii	Douglas spirea
	Salix scouleriana	Scouler's willow
	Salix exigua	Coyote willow
Trees	*Alnus rubra*	alder
	Populus balsamifera	cottonwood
	Crataegus douglasii	hawthorn



1/12 CONTAINER PLANT DETAIL
NOT TO SCALE



2/12 LIVE CUTTING DETAIL
NOT TO SCALE

Seed Mix - Zone 4 (0.28 ac)	
Botanical Name	Common Name
Elymus trachycaulus	Slender Wheatgrass
Festuca idahoensis	Idaho Fescue
Elymus glaucus	Blue Wildrye
Poa secunda	Sandberg Bluegrass
Bromus marginatus	Mountain Brome
Carex microptera	Small-winged sedge
Carex nebracensis	Nebraska sedge
Deschampsia cespitosa	Tufted Hairgrass
Hordeum brachyantherum	Meadow Barley

Preliminary
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PLANTING DETAILS

SHEET 12 OF 12