

US Army Corps
of Engineers
Seattle District



WASHINGTON STATE
DEPARTMENT OF
E C O L O G Y

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers

Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone (206) 764-3482
Attn: Karen Urelius, Project Manager

WA Department of Ecology

SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone (360) 407-6068
Attn: SEA Program, Federal Permit
Coordinator

Public Notice Date: July 9, 2012

Expiration Date: August 8, 2012

Reference No.: NWS-2012-192

Name: Grant County PUD No. 2

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 United States as described below and shown on the enclosed drawings.

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: Public Utility District No. 2 of Grant County
15655 Wanapum Village Lane, SW
Beverly, Washington 99321

Attention: Brandon Little
Telephone: (509) 754-5088

AGENT: Grant County Public Utility District
P.O. Box 878
Ephrata, Washington 98823

Attention: Darrell Pock, Project Specialist III
Telephone: (509) 754-5098

LOCATIONS: The proposed work and mitigation sites are on the Columbia River:

- Boat Launch Site on Priest Rapids Reservoir: 46.8646, -119.9684
- Fishing Pier Site on Wanapum Reservoir: 46.8688; -119.9786
- Mitigation Site adjacent to Priest Rapids Reservoir: 46.8634; -119.9691
- Mitigation Site adjacent to Wanapum Reservoir: 46.9204; -119.9534

WORK:

Boat Launch – The Public Utility District No. 2 of Grant County (Grant PUD) is proposing to install a 180-foot long boat launch ramp and launch float at the Huntzinger Road Recreation Area. The following work would occur waterward of the ordinary high water mark. Construction of the boat launch ramp would involve grading and placing 80 cubic yards (CY) of material under the proposed ramp slab to create a level base for the installation of an aggregate base. 57 CY of crushed rock would be placed for the ramp base and 40 CY of 8-12 inch quarry spalls would be along the sides of the ramp for erosion protection. Steel rails would be set in the aggregate. On top of the aggregate base and steel rails, multiple 28-foot wide precast concrete ramp planks would be placed to create the ramp surface. The landward end of the ramp would consist of cast in place concrete.

The launch float would be installed over the concrete planks. The new launch float would be 8 feet wide by 144 feet long and would be comprised of six individual float sections. Float materials contacting the water would be white in color and permanently encapsulated. The surface of each float section would be grated with a minimum of 50% open area, and functional grating would cover a minimum of 50% of the float. To secure the new launch float, six 12-inch diameter piles would be installed along the northeast side of the ramp using vibratory hammer construction methods. All resulting turbidity and drilling spoils would be contained within the isolated work area by a floating turbidity barrier.

Other work associated with the boat launch and float landward of the ordinary high water mark includes installation of a concrete abutment ramp at the front of the launch float for Americans with Disabilities Act accessibility, construction of a gravel parking lot and access paths, native landscaping in the parking island areas, construction of stormwater facilities and a sidewalk, and installation of interpretive panels and a vault toilet. Approximately 58 CY of fill would be placed in the wetland buffer southwest of the boat launch.

Fishing Pier – The Grant PUD proposes to install a steel fishing pier. The pier would be approximately 8 feet wide by 70 feet long, and would be supported by two in-water, steel pile bents and one concrete shoreline abutment. The proposed pile bents would be supported on two or three 12-inch diameter steel piles which would be installed using vibratory hammer or drilled shaft construction method. All in-water drilling activity would be contained within a 24-inch diameter steel casing which would be installed using a vibratory hammer. Installation of the pile bents would result in the removal of approximately 12 CY of sediment, and back filled with approximately 9 CY of permanent fill.

Following installation of the pile bents, a grated steel superstructure would be set onto the pile caps using a crane operating from the shoreline. Steel/fiberglass decking would then be applied to the superstructure to form the surface of the fishing pier. The surface of the pier would be grated with a minimum of 50 percent open area, and functional grating would cover a minimum of 50 percent of the float. 29 CY of new riprap would be placed along 14 linear feet of shoreline to reduce the threat of erosion to the fishing pier abutment.

Other work associated with the fishing pier landward of the Ordinary High Water Mark (OHWM) includes new parking stalls, construction of a concrete access ramp, and construction of a sidewalk from the parking stalls to the fishing pier, and installation of interpretive panels and a vault toilet.

PURPOSE: The purpose of the projects is to provide safe access to recreational amenities in compliance with Grant PUD's Federal Energy Relicensing Commission license dated April 17, 2008.

SOURCE OF FILL MATERIAL: The source of the fill material would be a local rock quarry.

MITIGATION:

Mitigation Area on Priest Rapids Reservoir

The proposed mitigation site would be used to mitigate for the overwater impacts at the Huntzinger Road Recreation Area. This would involve planting native vegetation, primarily willows and black cottonwood in the cobbly riparian area. An excavator mounted stinger would be used to create the required pilot holes for the plantings as the base of the plants will need to reach the seasonally low water table for survival success. Upon completion of planting, any disturbed upland areas would be re-seeded with native grasses. The existing lake fringe Wetland area (Wetland #2) south of the formalized recreation area would be planted with mitigation plantings. This wetland would be enhanced via the planting of native vegetation in the sparsely vegetated areas. Mechanical equipment would be used to assist with the installation of native plantings. The exact size of the mitigation area has not yet been determined. A final mitigation plan will be required by the Corps prior to the permit decision.

Mitigation Area on the Wanapum Reservoir

The South Sand Hollow Site would provide a portion of the mitigation required for the Wanapum Dam Upper Boat Launch improvements as well as mitigation required for the Huntzinger Public Access Fishing Pier. This will involve removing non-native and invasive species from an existing wetland. Native vegetation will then be planted by hand. After planting, the mitigation area will be fenced to protect it from human intrusion. The mitigation area is located within the OHWM of the Columbia River. The exact size of the mitigation area has not yet been determined. A final mitigation plan will be required by the Corps prior to the permit decision.

In addition to the riparian plantings, Grant PUD proposes to remove six existing concrete bulkheads (totaling approximately 400 square feet) that are currently present at the fishing pier site at the OHWM.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and 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. The Corps has determined that listed species and critical habitat may be affected by the proposed action; consultation under Section 7 of the ESA is required.

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 National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area; the Corps will initiate EFH consultation. 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: A cultural resources survey was conducted within the permit area. No sites determined eligible for or listed on the National Register of Historic Places were found to exist within the permit area. The District Engineer will review the survey report, the latest published version of the National Register of Historic Places, lists of properties determined eligible, and other sources of information. The District Engineer invites responses to this public notice from Native American Nations or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns with historic properties in the area. This public notice initiates consultation under Section 106 of the National Historic Preservation Act with any Tribe that has information or concerns with historic properties in the proposed permit area.

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 pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

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

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 it would be in the public interest to authorize this proposal. 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 commentator'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.

COMMENTS TO CORPS: All e-mail comments should be sent to: karen.m.urelius@usace.army.mil. Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Karen Urelius, P.O. Box 3755, Seattle, Washington 98124-3755.

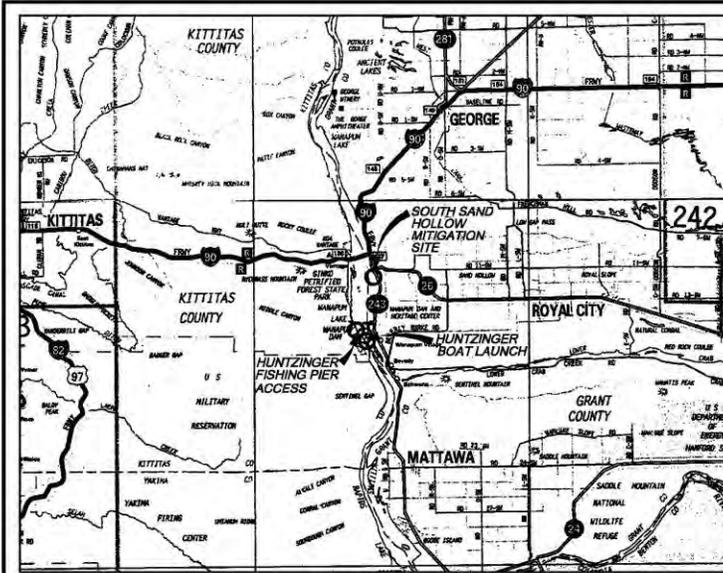
COMMENTS TO ECOLOGY: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: SEA program – Federal Permit 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: Grant County PUD No. 2; NWS-2012-192

NWS-2012-192

ADDITIONAL INFORMATION: 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 District's web page at: <http://www.nws.usace.army.mil/> and scroll down the alphabetical listing of District elements, and click on "Regulatory" and then "Regulatory – Permits" for the Seattle District's Regulatory homepage. Select the prominently displayed "Public Notices" heading and a list of recently-issued public notices will appear, in chronological order of the date of issuance. Select and view the listing for this project.

Encl: Figures 1-28



KEY MAP
NOT TO SCALE

SECTION 20, T16N, R23E - HUNTZINGER BOAT LAUNCH
SECTION 20, T16N, R23E - HUNTZINGER FISHING ACCESS PIER
SECTION 33, T17N, R23E - SOUTH SAND HOLLOW MITIGATION SITE

SHEET INDEX

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2	PARCEL MAP
3	EXISTING CONDITIONS
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5	HUNTZINGER FISHING ACCESS SITE SITE PLAN
6	HUNTZINGER BOAT LAUNCH GRADING PLAN
7	HUNTZINGER FISHING ACCESS SITE GRADING PLAN
8	GRADING SECTIONS
9	HUNTZINGER BOAT LAUNCH AND FLOAT SITE PLAN
10	HUNTZINGER BOAT LAUNCH AND FLOAT PROFILE & SECTION
11	HUNTZINGER BOAT LAUNCH AND FLOAT DETAILS
12	HUNTZINGER FISHING ACCESS PIER SITE PLAN
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24	HUNTZINGER FISHING ACCESS SITE MITIGATION NARRATIVE
25	HUNTZINGER FISHING ACCESS SITE MITIGATION PLAN
26	PLANTING DETAILS
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LOCATION MAP

0 2000 4000
SCALE IN FEET

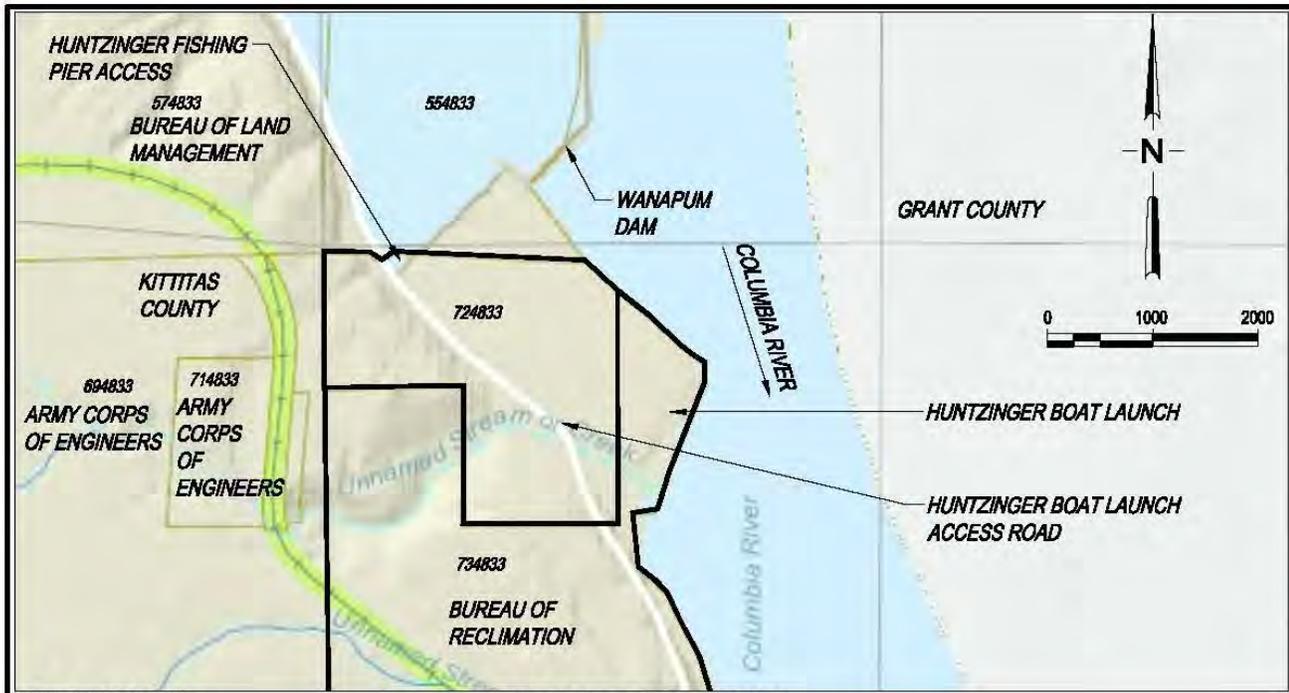
WATER ELEVATIONS - WANAPUM RESERVOIR	ELEV. FT
MAXIMUM HIGH WATER ELEVATION	505.85'
ORDINARY HIGH WATER ELEVATION	495.0'
MINIMUM WATER ELEVATION	487.6'
WATER ELEVATIONS - PRIEST RAPIDS RESERVOIR	ELEV. FT
MAXIMUM HIGH WATER ELEVATION	578.74'
ORDINARY HIGH WATER ELEVATION	575.04'
MINIMUM WATER ELEVATION	561.30'

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USAOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE VICINITY MAP

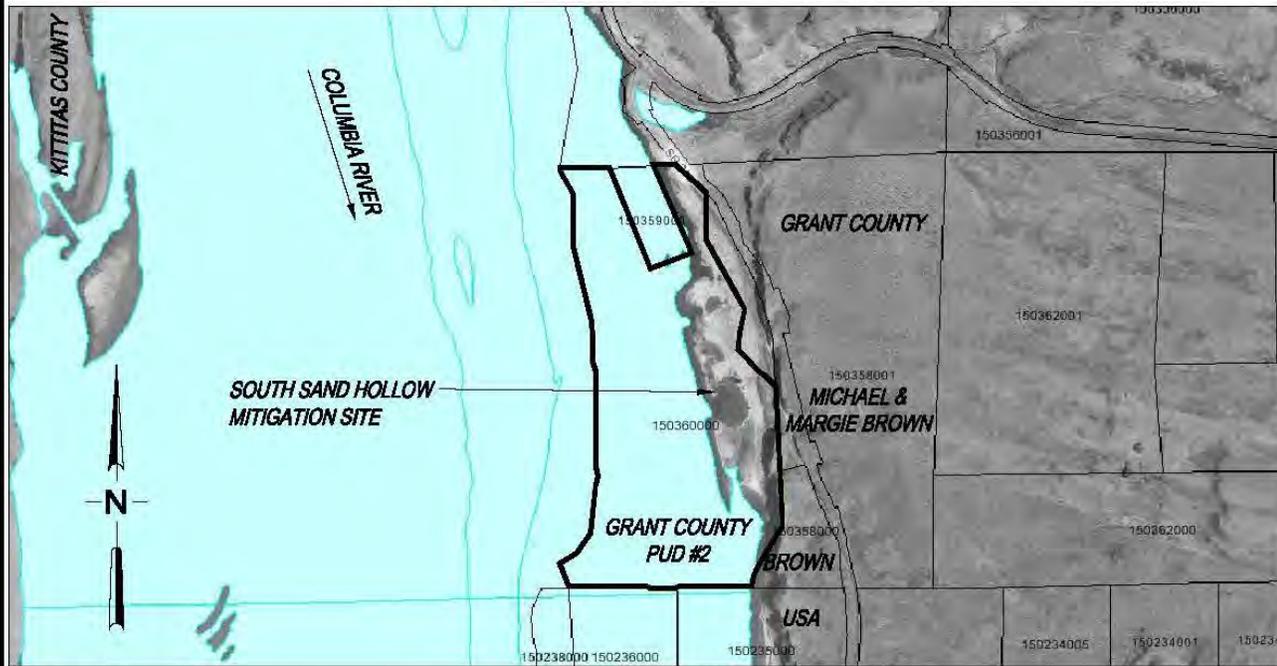
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #: _____
SITE ADDRESS: WA

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 1 OF 28 **DATE:** 12/07/11



SOURCE: GRANT COUNTY GIS

**PARCELS 724833 & 734833
HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS**



SOURCE: GRANT COUNTY GIS

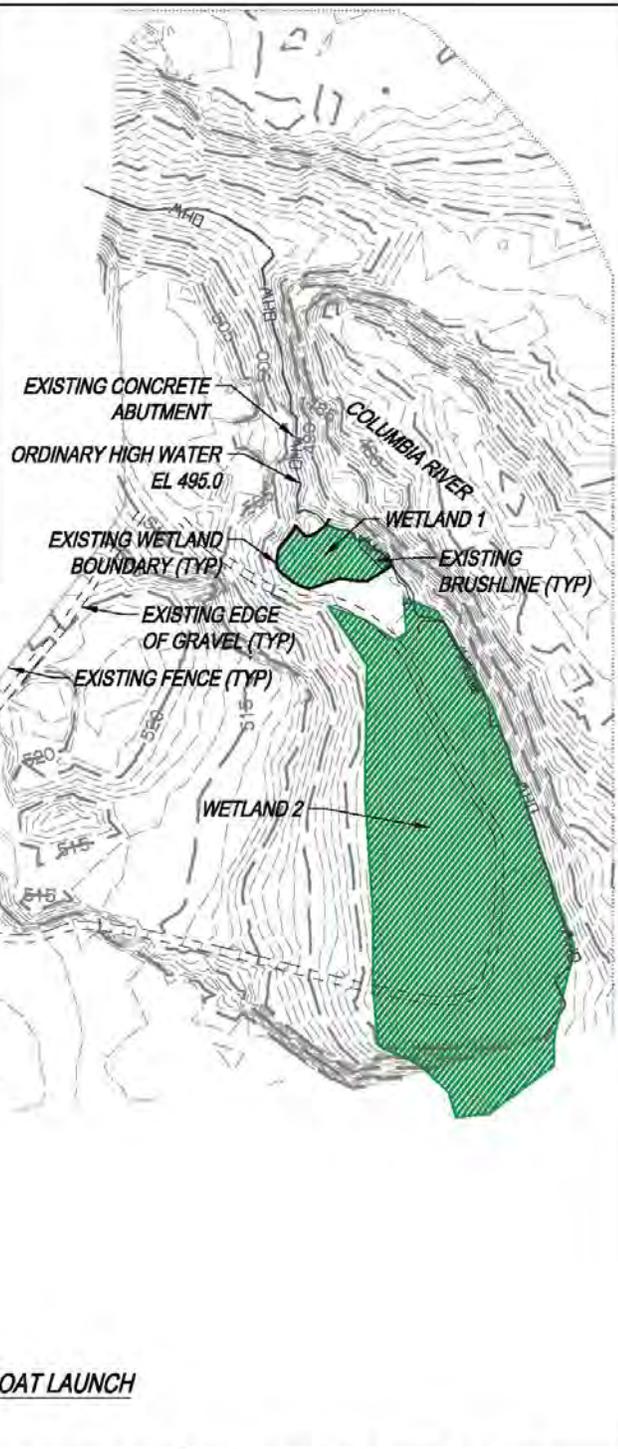
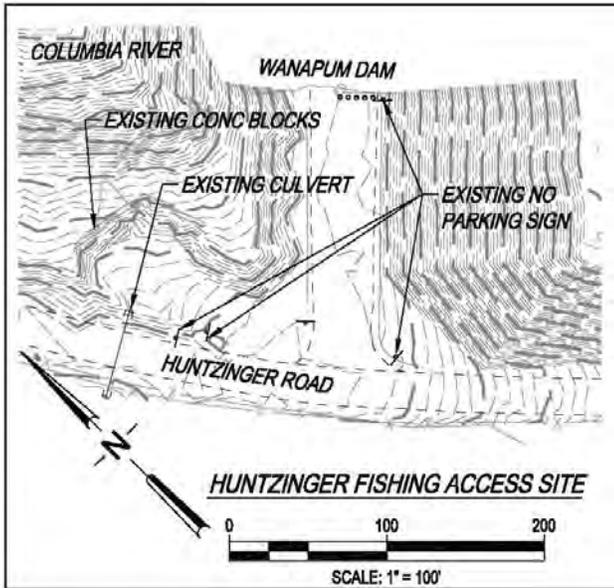
**PARCEL 150360000
SOUTH SAND HOLLOW MITIGATION SITE**

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE
PARCEL MAP**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: N/A

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 2 OF 28 **DATE:** 12/09/11



PURPOSE: CONSTRUCT A NEW PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: NAD 83 HORZ, NAVD 88 VERT

ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

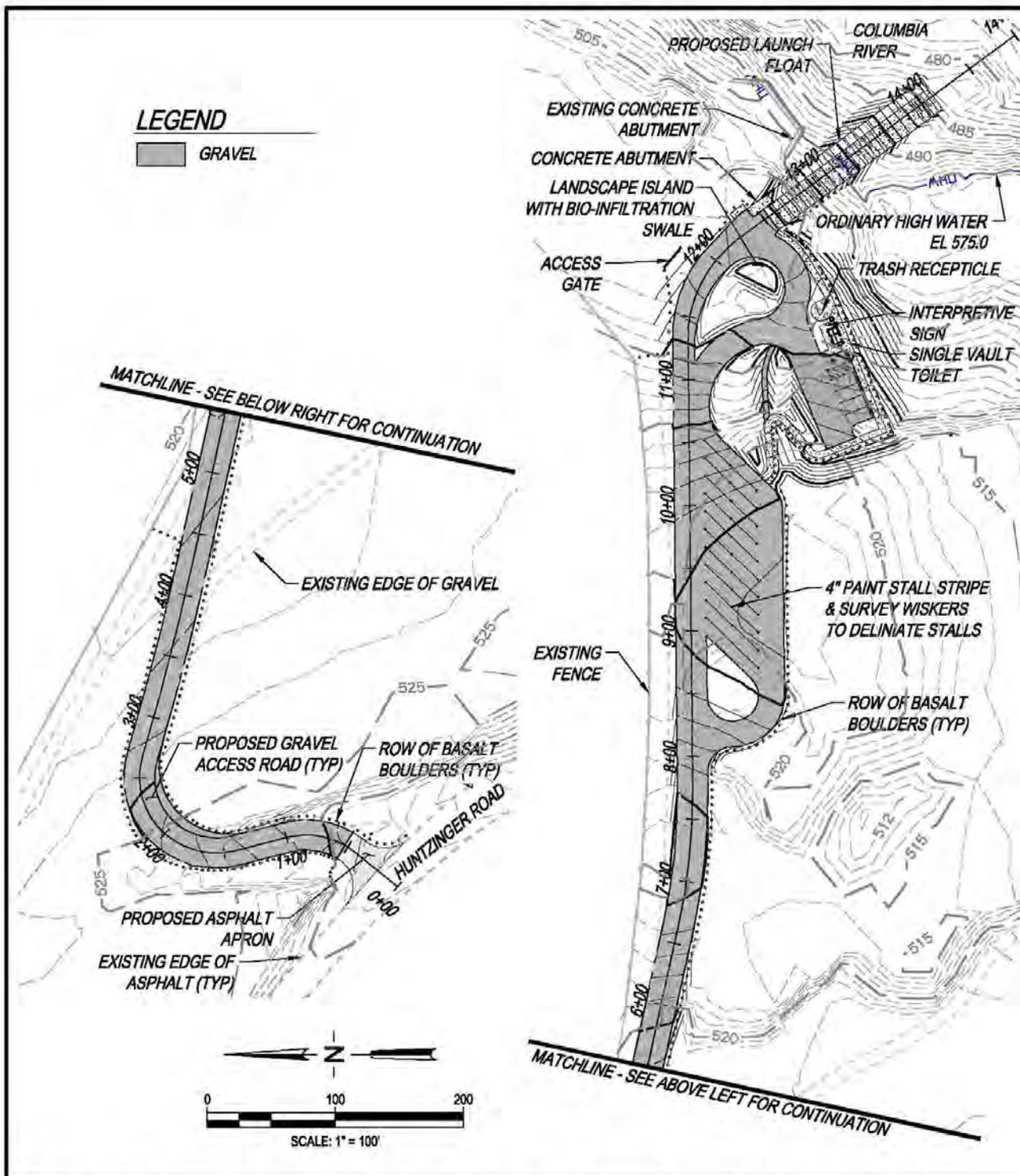
HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE
EXISTING CONDITION

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: N/A

PROPOSED: GRADING, NEW FLOAT, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.

IN: COLUMBIA RIVER (WANAPUM RESERVOIR)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA

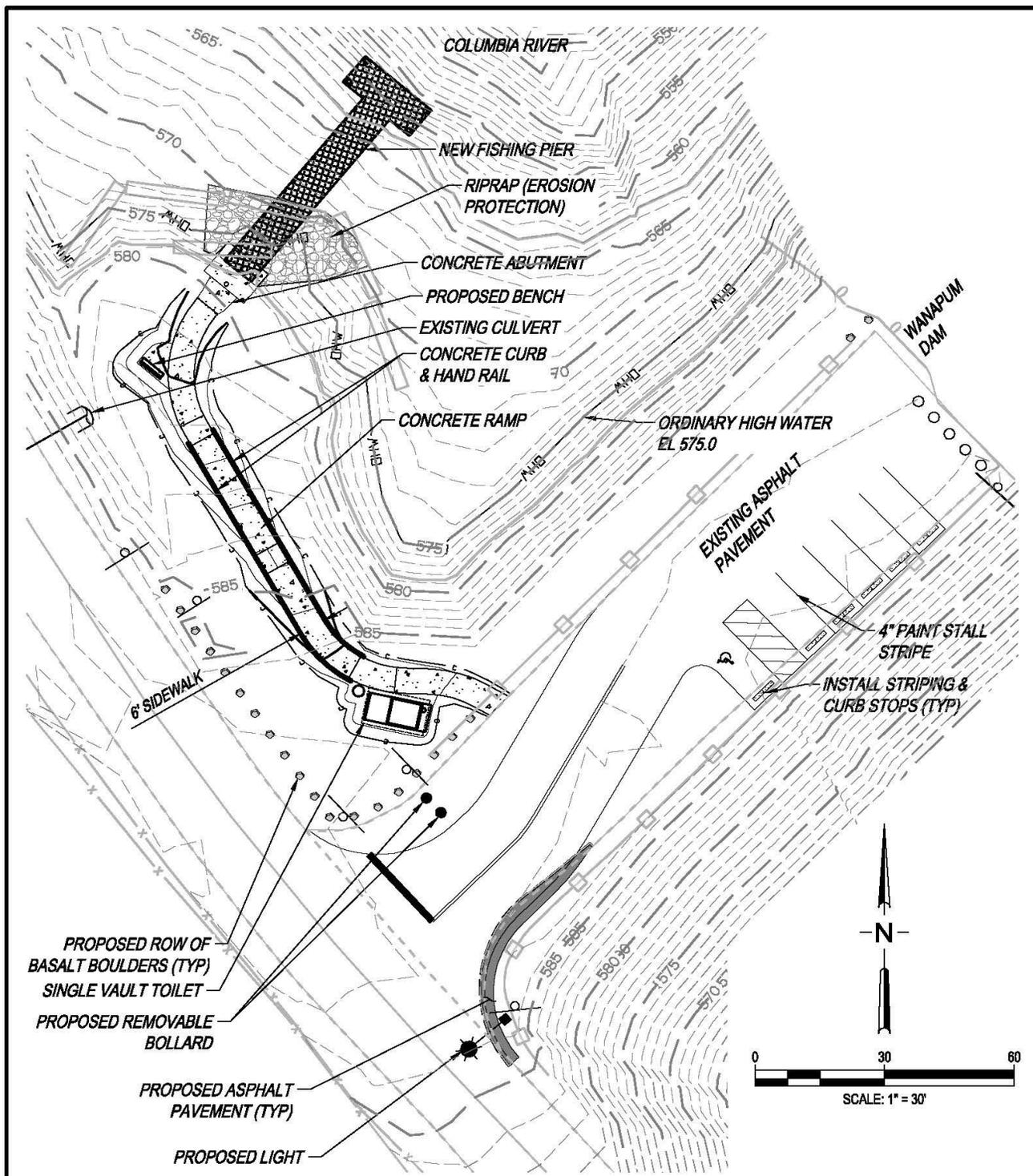
SHEET 3 OF 28 **DATE:** 2/22/12



PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH BOAT LAUNCH SITE PLAN
 APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS:

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 4 OF 28 **DATE:** 12/07/11



PURPOSE: CONSTRUCT A NEW PUBLIC FISHING FACILITY (HUNTZINGER FISHING ACCESS SITE) AND MITIGATE FOR FISHING PIER OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: NAD 83 HORZ, NAVD 88 VERT

ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER FISHING
ACCESS SITE
SITE PLAN**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: N/A

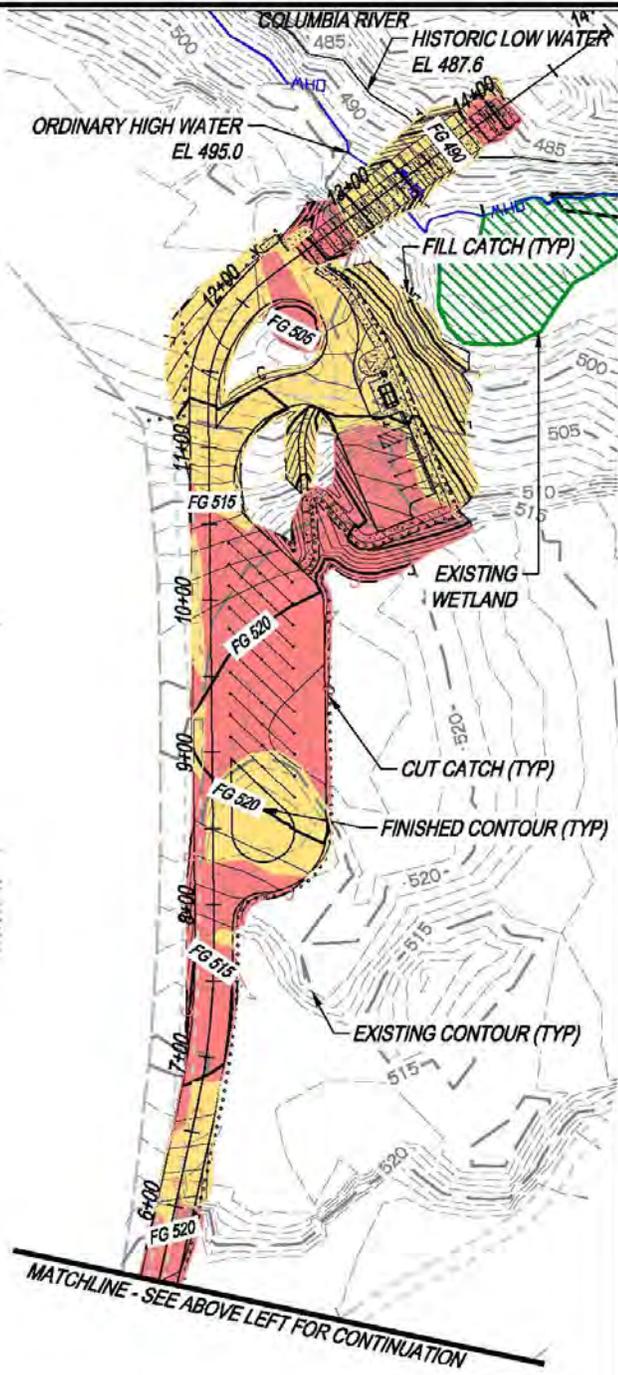
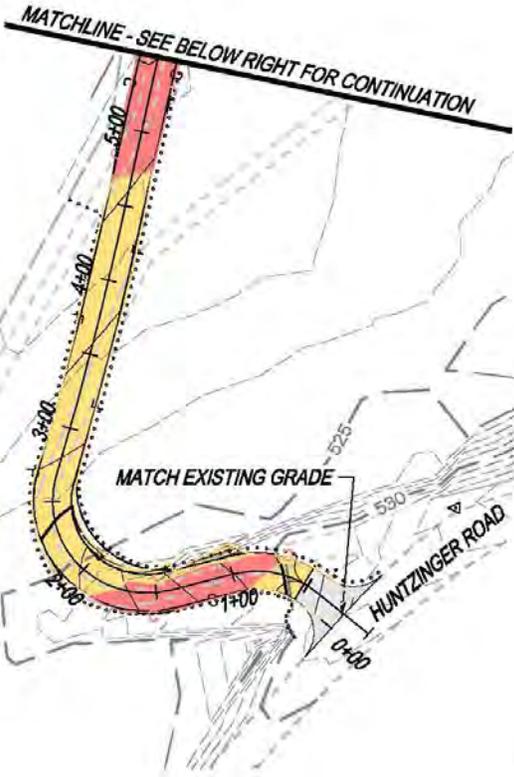
PROPOSED: GRADING, NEW FISHING PIER, PARKING LOT STRIPING, AND MITIGATION PLANTING.

IN: COLUMBIA RIVER (WANAPUM RESERVOIR)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA

SHEET 5 OF 28 **DATE:** 12/07/11

GRADING VOLUMES
 CUT 1,718 CY
 FILL 2,164 CY

 CUT SHADE
 FILL SHADE

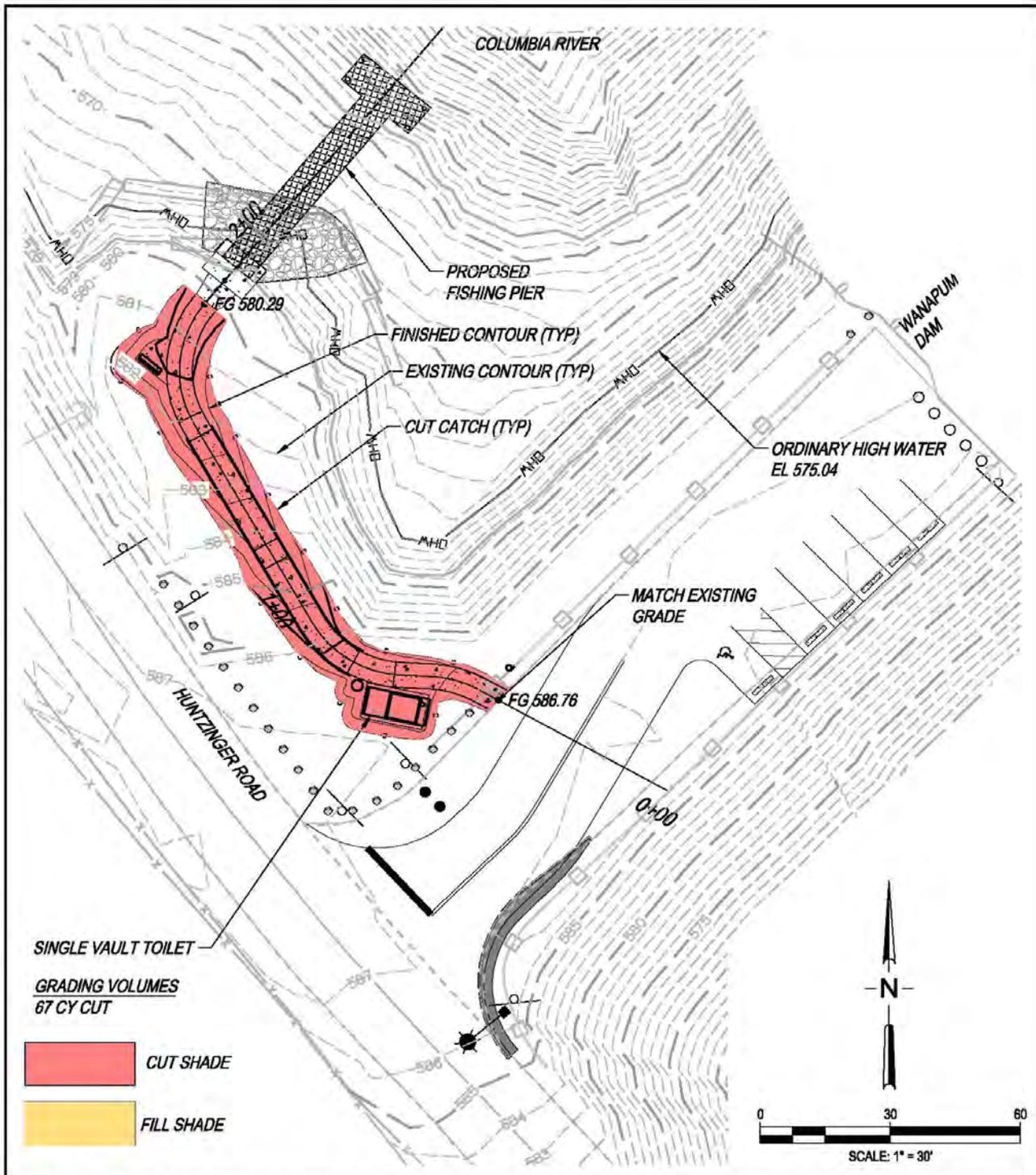


PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER
 BOAT LAUNCH
 GRADING PLAN**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: WA

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 6 OF 28 **DATE:** 12/07/11



SINGLE VAULT TOILET

GRADING VOLUMES
67 CY CUT

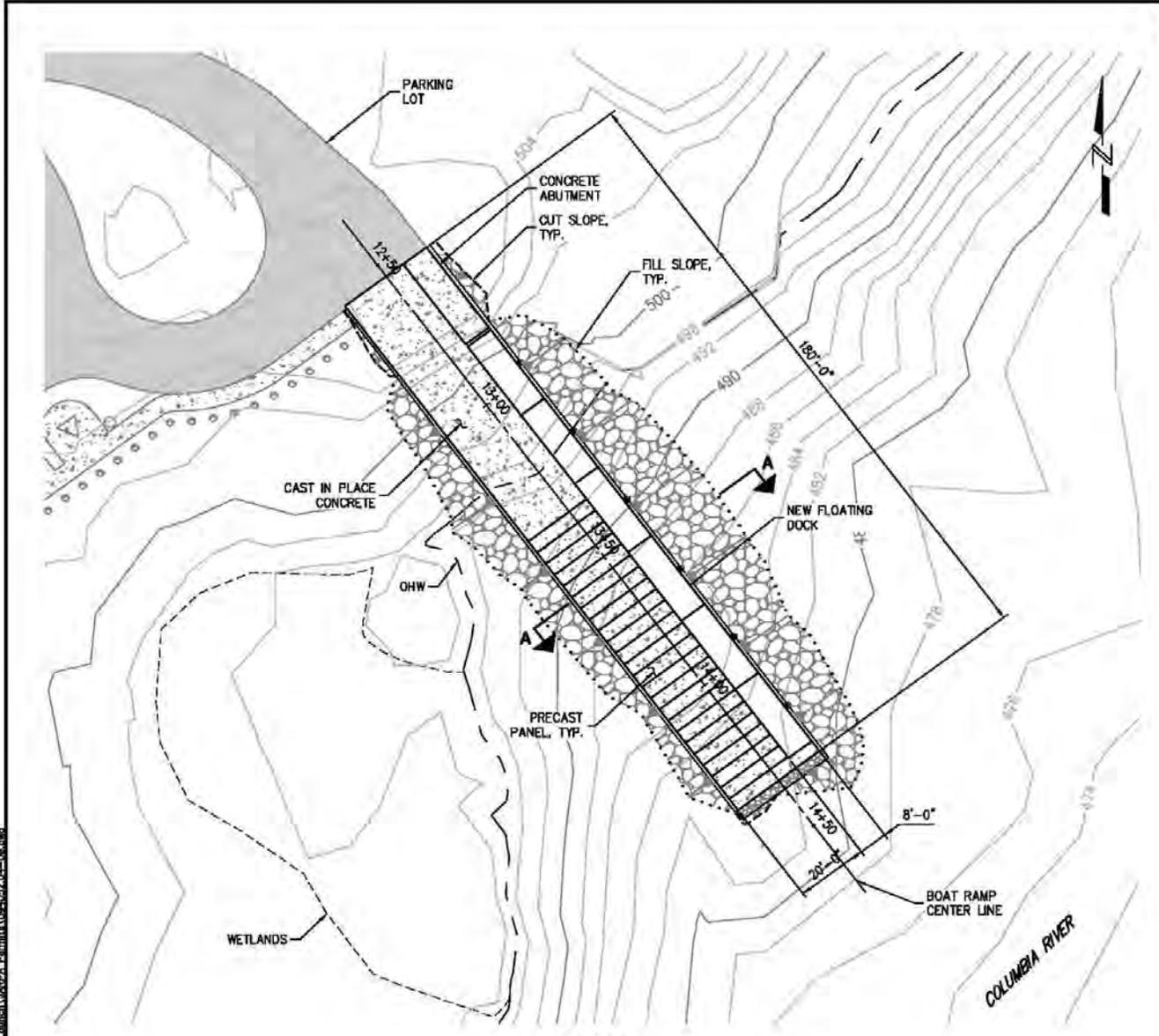
- CUT SHADE
- FILL SHADE

PURPOSE: CONSTRUCT A NEW PUBLIC FISHING FACILITY (HUNTZINGER FISHING ACCESS SITE) AND MITIGATE FOR FISHING PIER OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER FISHING ACCESS SITE GRADING PLAN

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: NA

PROPOSED: GRADING, NEW FISHING PIER, PARKING LOT STRIPING, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM RESERVOIR)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 7 OF 28 **DATE:** 12/06/11



PLAN

WATER ELEVATION	ELEVATION
MAXIMUM HIGH WATER	505.65'
ORDINARY HIGH WATER	495.00'
MINIMUM WATER ELEVATION	487.60'

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: NAD 83 HORZ, NAVD 88 VERT

ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACE, USBR, USBLM

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE

SITE PLAN

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON

REFERENCE #:
 SITE ADDRESS: NA

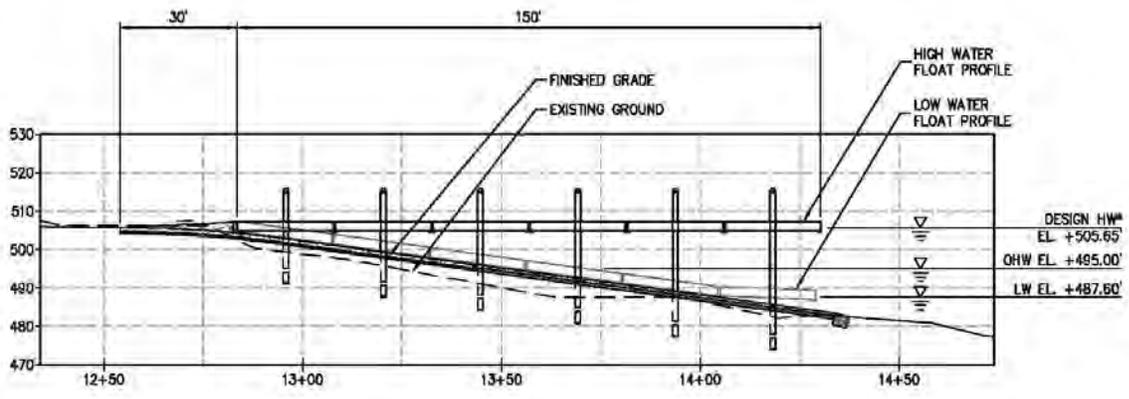
PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.

IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)

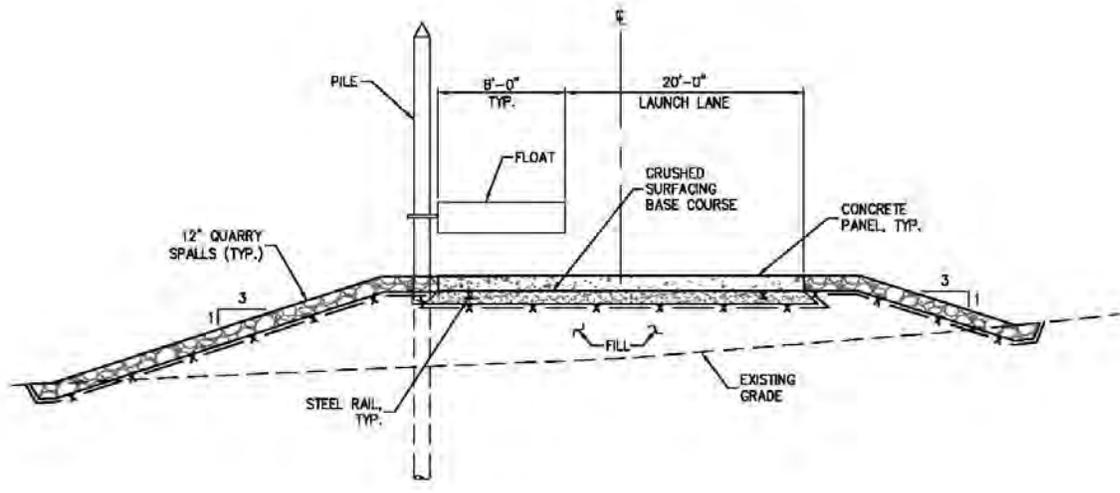
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)

COUNTY: GRANT **STATE:** WA

SHEET 9 OF 28 **DATE:** 12/09/11



PROPOSED PROFILE



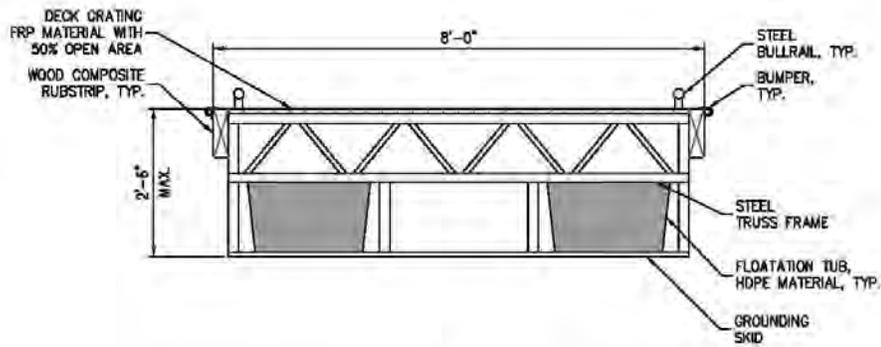
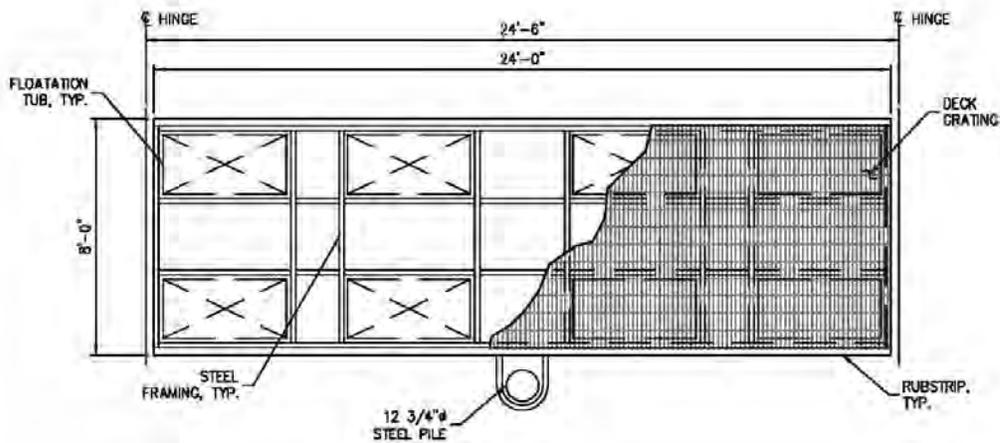
SECTION A-A

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACE, USBR, USBLM

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE PROFILE & SECTION
 APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: WA

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 10 OF 28 **DATE:** 12/09/11

C:\Users\jv0009\OneDrive\Documents\Beverly\Beverly Boat Launch\ARBA_Permit\09-052-04-10.dwg



FLOAT

NOTE:
ANCHORING SYSTEM FOR FLOATING DOCK WILL BE DRIVEN STEEL PILES.

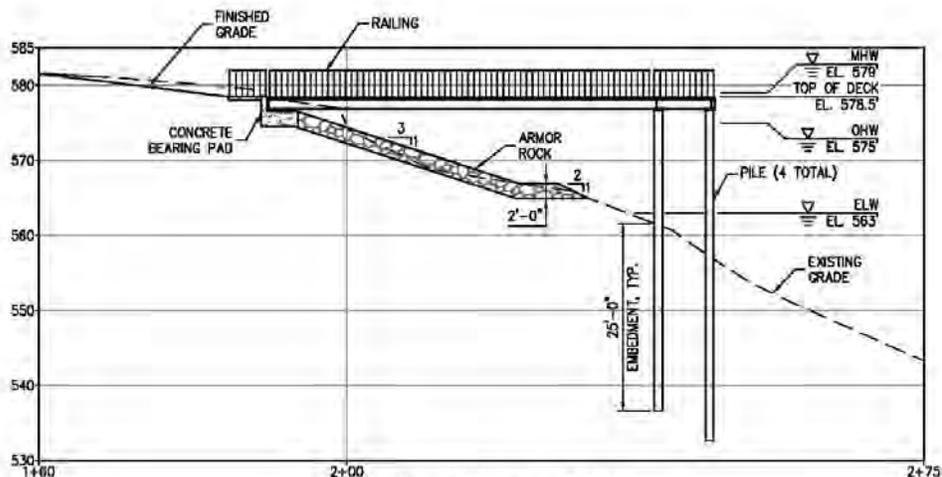
C:\Users\j2003\Documents\2009\06\052.04 - Grant County Recreation Facility-Huntzinger Boat Launch\AREA_Permit\064\052.04-11.dwg

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PLUD #2 OF GRANT COUNTY, USACE, USBR, USBLM

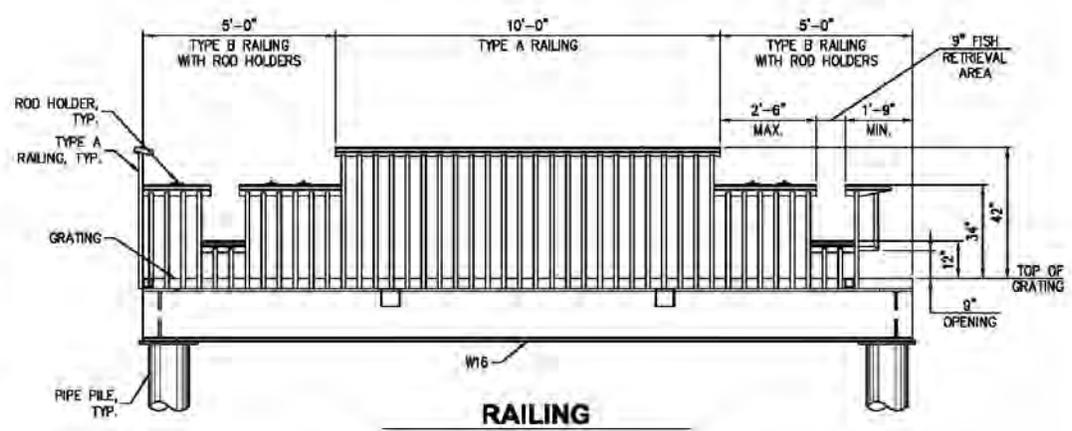
HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE
FLOAT DETAILS

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #: _____
 SITE ADDRESS: WA

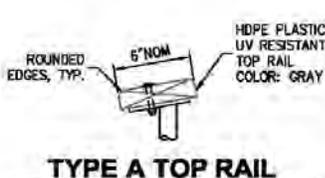
PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 11 OF 28 **DATE:** 12/09/11



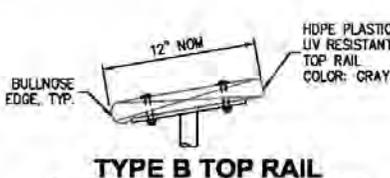
PROPOSED PROFILE



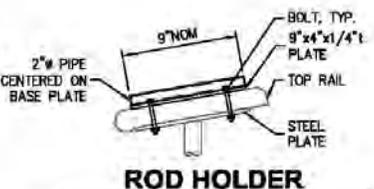
RAILING



TYPE A TOP RAIL



TYPE B TOP RAIL

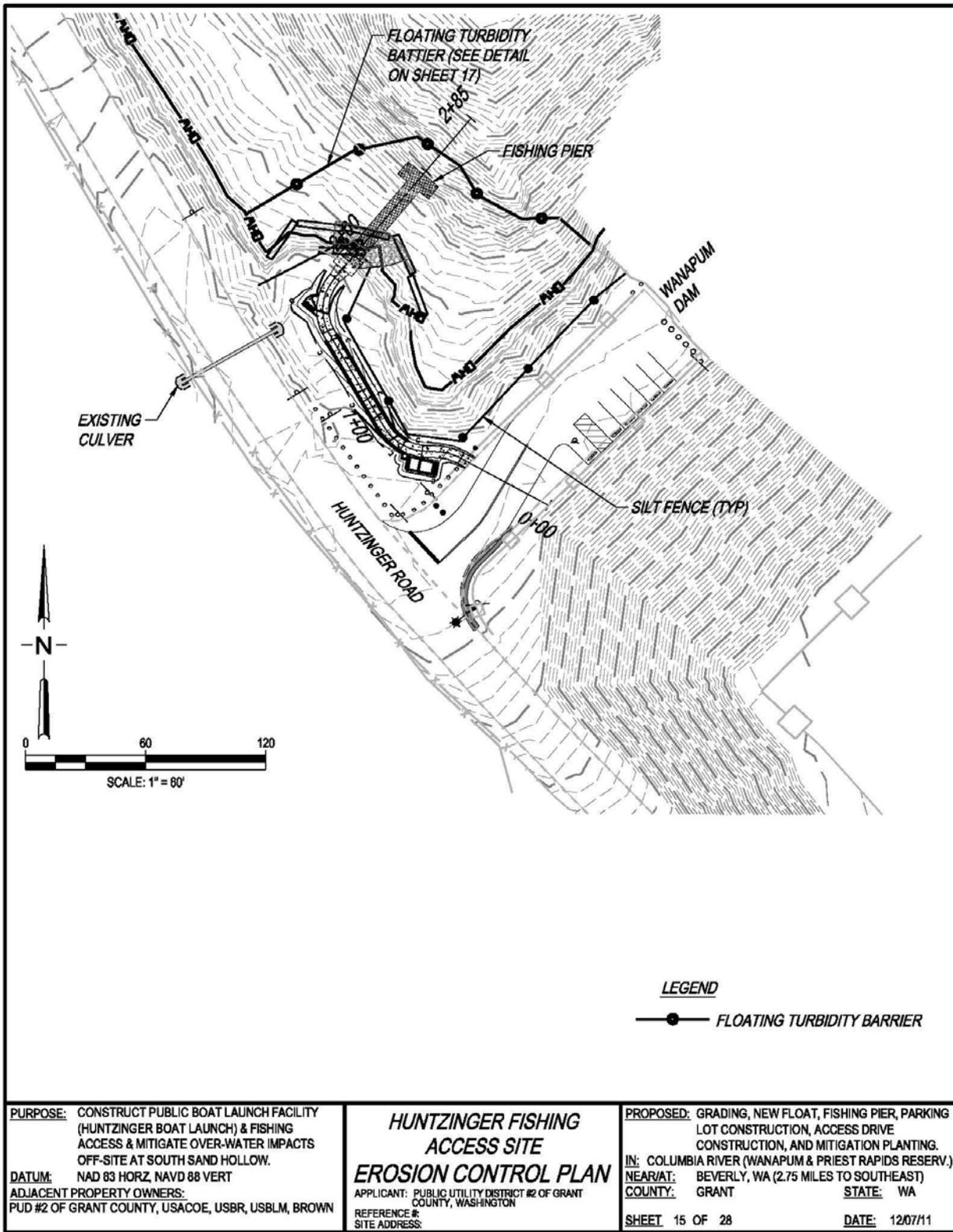


ROD HOLDER

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACE, USBR, USBLM

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE ELEVATION & DETAILS
 APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: WA

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET: 13 OF 28 **DATE:** 12/09/11



NOTES:

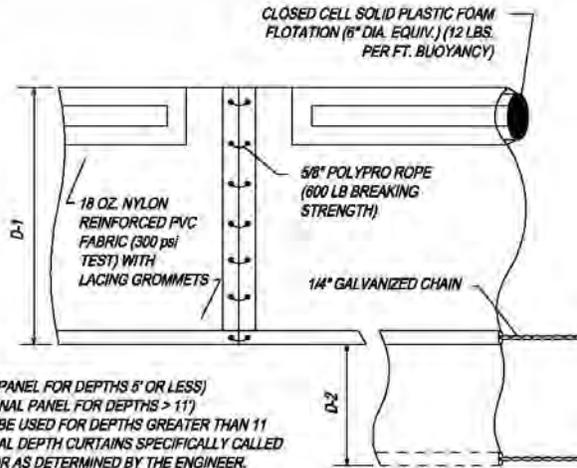
1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING. THE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SITED, DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANUAL FOR EASTERN WASHINGTON, AND WSDOT SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL MEASURES THROUGHOUT CONSTRUCTION ACTIVITY UNTIL FINAL SITE STABILIZATION.
3. THE CONTRACTOR SHALL MAINTAIN ON SITE A WRITTEN DAILY LOG OF EROSION CONTROL BMP MAINTENANCE.
4. IF THE OWNER OR ENGINEER(S) HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, A STOP WORK ORDER SHALL BE ISSUED AT THE CONTRACTOR'S EXPENSE UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED.
5. INSTALL SEDIMENT FENCE IN ACCORDANCE WITH WSDOT STANDARD DETAIL I-30.15-00.
6. SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF. THE INSPECTION FREQUENCY FOR STABILIZED, INACTIVE SITES SHALL BE ONCE EVERY TWO WEEKS OR MORE FREQUENTLY AS DETERMINED BY THE LOCAL PERMITTING AUTHORITY BASED ON THE LEVEL OF SOIL STABILITY AND POTENTIAL FOR ADVERSE ENVIRONMENTAL IMPACTS.
7. IN AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST ONE OR MORE OF THE FOLLOWING PREVENTATIVE MEASURES SHALL BE TAKEN FOR DUST CONTROL:
 - MINIMIZE THE PERIOD OF SOIL EXPOSURE THROUGH THE USE OF TEMPORARY GROUND COVER AND OTHER TEMPORARY STABILIZATION PRACTICES.
 - SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS WET.
 - SPRAY EXPOSED SOIL AREAS WITH A DUST PALLIATIVE. NOTE: USE OF PETROLEUM PRODUCTS OR POTENTIALLY HAZARDOUS MATERIALS ARE PROHIBITED
8. CLEARING LIMITS SHALL BE CLEARLY MARKED PRIOR TO ANY SOIL DISTURBANCE.
9. CONSTRUCTION ACCESS BMP SHALL BE INSTALLED AND MAINTAINED TO KEEP SOIL FROM BEING TRACKED ONTO ROADWAYS.
10. HIGHLY TURBID OR CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION SHALL BE HANDLED SEPARATELY FROM STORMWATER. UTILIZE CONTAINMENT BERMS AND FLOATING TURBIDITY BARRIER AS SPECIFIED HEREIN. CONTROL OF DEWATERING MAY INCLUDE FILTRATION WITH BERMS, GROUND INFILTRATION, ON SITE TANK TREATMENT, OR OTHER SIMILAR SYSTEMS PRIOR TO DISCHARGE BACK INTO SURFACE WATERS.
11. FLOATING TURBIDITY BARRIER SHALL BE DEPLOYED AROUND ALL IN-WATER WORK AREAS. (BMP C233).

PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE EROSION CONTROL NOTES

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS:

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEAR/AT: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET: 16 OF 28 **DATE:** 12/07/11



D-1-5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS)
 D-2-5' STD. (ADDITIONAL PANEL FOR DEPTHS > 11')
 TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 11 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

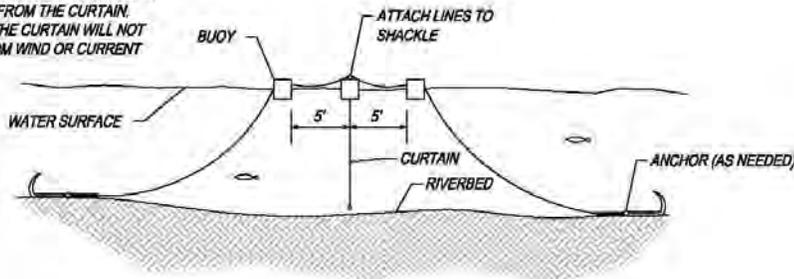
NOTES:

1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. MAX GAP BETWEEN BOTTOM OF BARRIER AND RIVER BED SHALL BE 6 INCHES.

FLOATING TURBIDITY BARRIER

NO SCALE

NOTE: ANCHORING WITH BUOYS, AS SHOWN, REMOVES ALL VERTICAL FORCES FROM THE CURTAIN. HENCE, THE CURTAIN WILL NOT SINK FROM WIND OR CURRENT LOADS.



ANCHOR DETAIL

NO SCALE

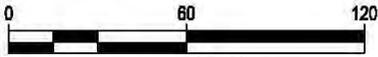
PURPOSE: CONSTRUCT PUBLIC BOAT LAUNCH FACILITY (HUNTZINGER BOAT LAUNCH) & FISHING ACCESS & MITIGATE OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: NAD 83 HORZ, NAVD 88 VERT
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE
 EROSION CONTROL DETAILS**

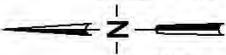
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #: SITE ADDRESS:

PROPOSED: GRADING, NEW FLOAT, FISHING PIER, PARKING LOT CONSTRUCTION, ACCESS DRIVE CONSTRUCTION, AND MITIGATION PLANTING.
IN: COLUMBIA RIVER (WANAPUM & PRIEST RAPIDS RESERV.)
NEARBY: BEVERLY, WA (2.75 MILES TO SOUTHEAST)
COUNTY: GRANT **STATE:** WA
SHEET 17 OF 28 **DATE:** 12/07/11

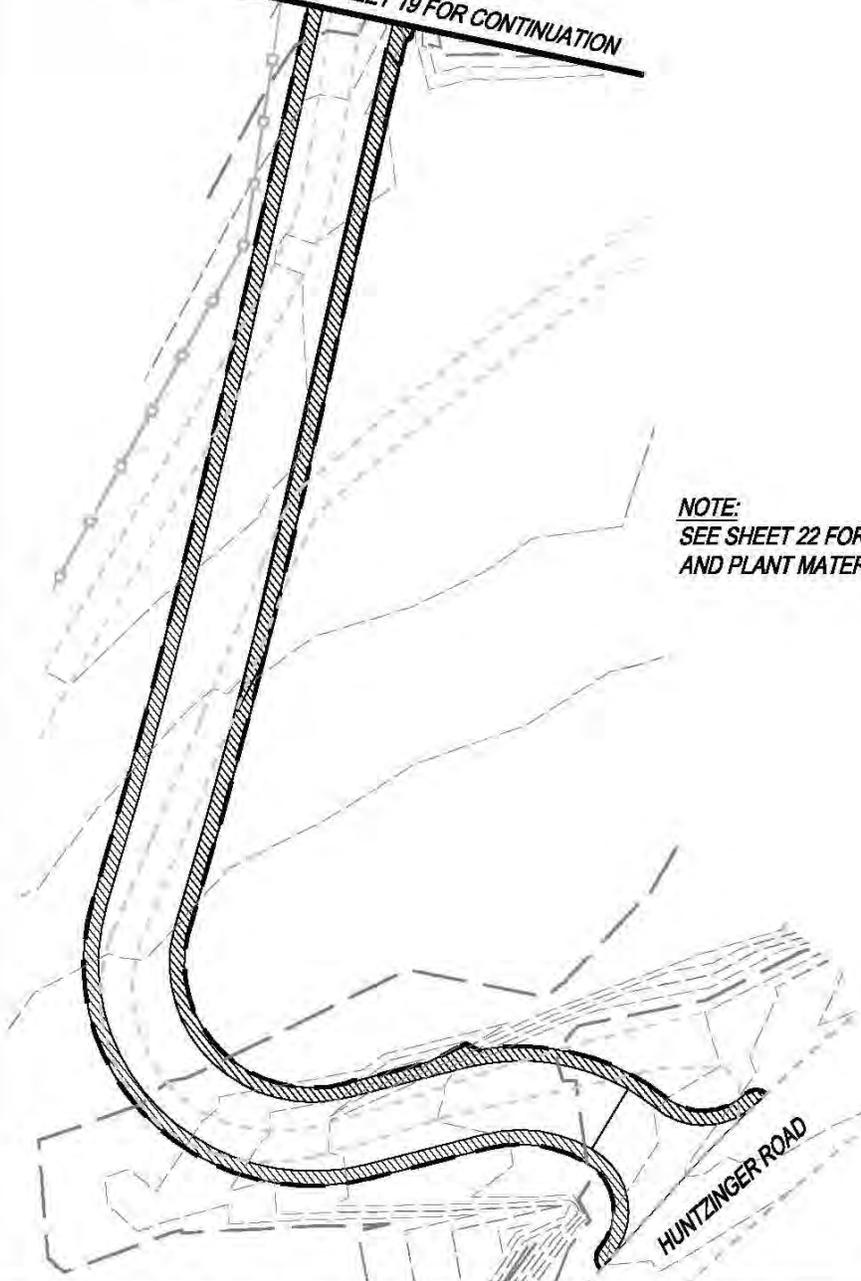
HUNTZINGER BOAT LAUNCH SITE RESTORATION / MITIGATION MAP



SCALE: 1" = 120'



MATCHLINE - SEE SHEET 19 FOR CONTINUATION



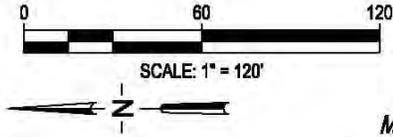
NOTE:
SEE SHEET 22 FOR SUMMARY OF PROPOSED MITIGATION AND PLANT MATERIALS LEGEND.

PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

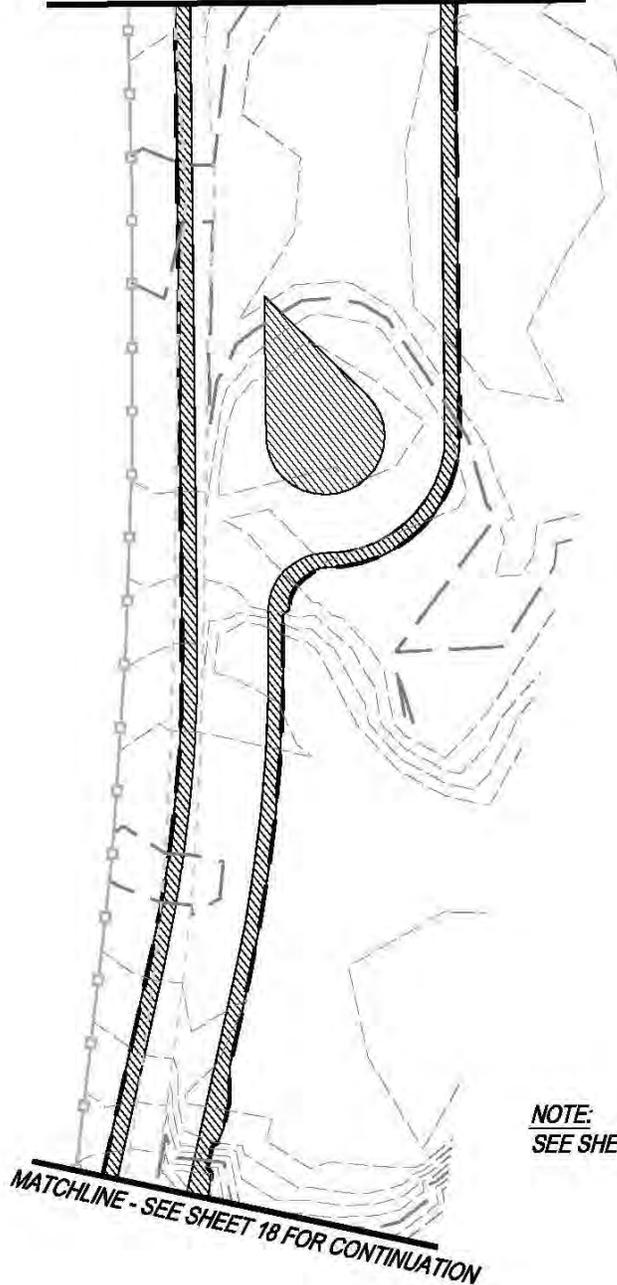
**HUNTZINGER
 BOAT LAUNCH
 MITIGATION SITE MAP**
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA
SHEET 18 OF 28 **DATE:** 2/22/12

HUNTZINGER BOAT LAUNCH SITE RESTORATION / MITIGATION MAP



MATCHLINE - SEE SHEET 20 FOR CONTINUATION



NOTE:
SEE SHEET 22 FOR PLANT MATERIALS LEGEND.

MATCHLINE - SEE SHEET 18 FOR CONTINUATION

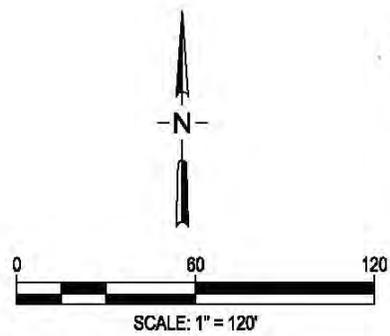
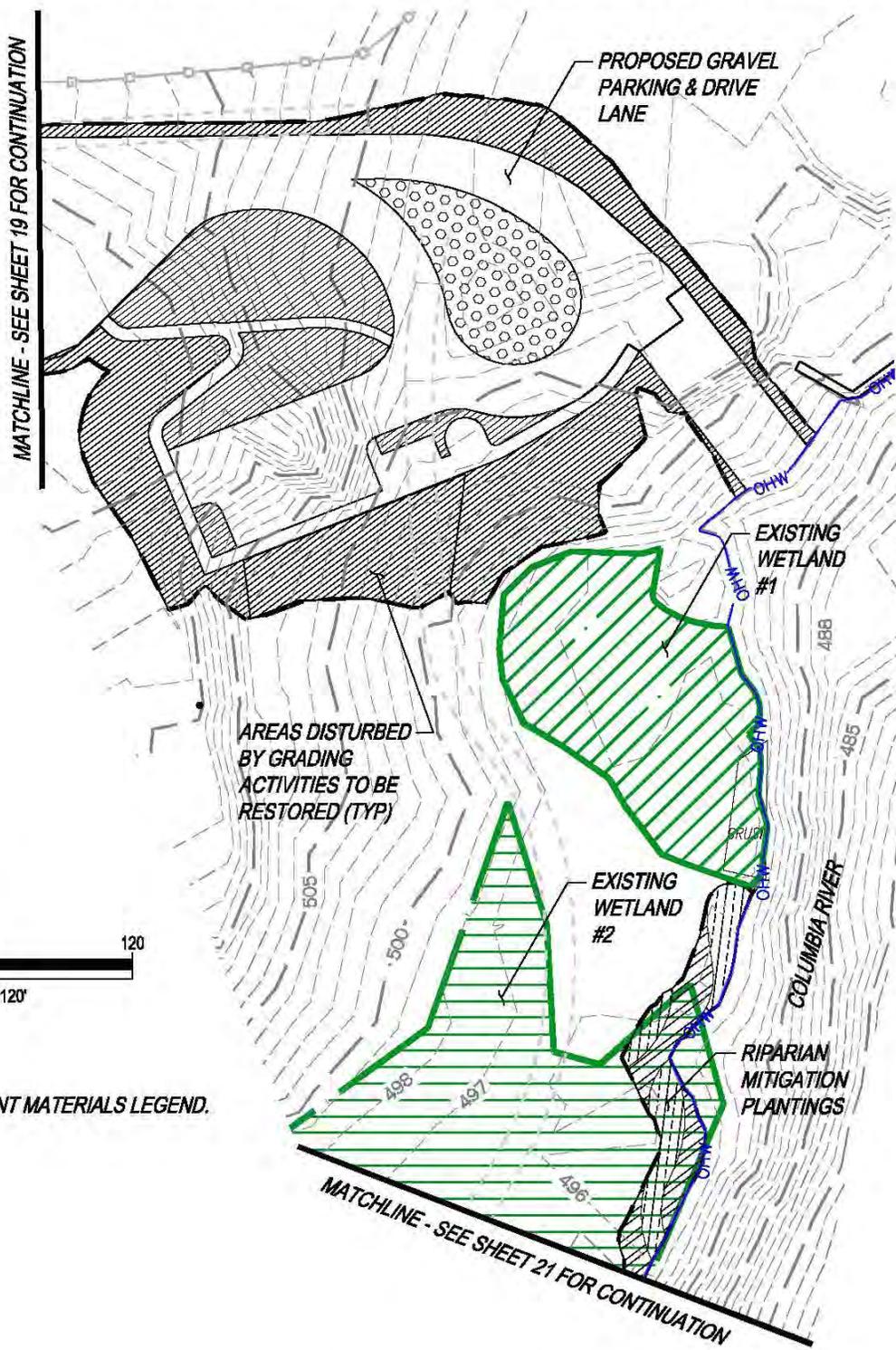
PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER
 BOAT LAUNCH
 MITIGATION SITE MAP**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA
SHEET 19 OF 28 **DATE:** 12/07/11

HUNTZINGER BOAT LAUNCH SITE RESTORATION / MITIGATION MAP



NOTE:
SEE SHEET 22 FOR PLANT MATERIALS LEGEND.

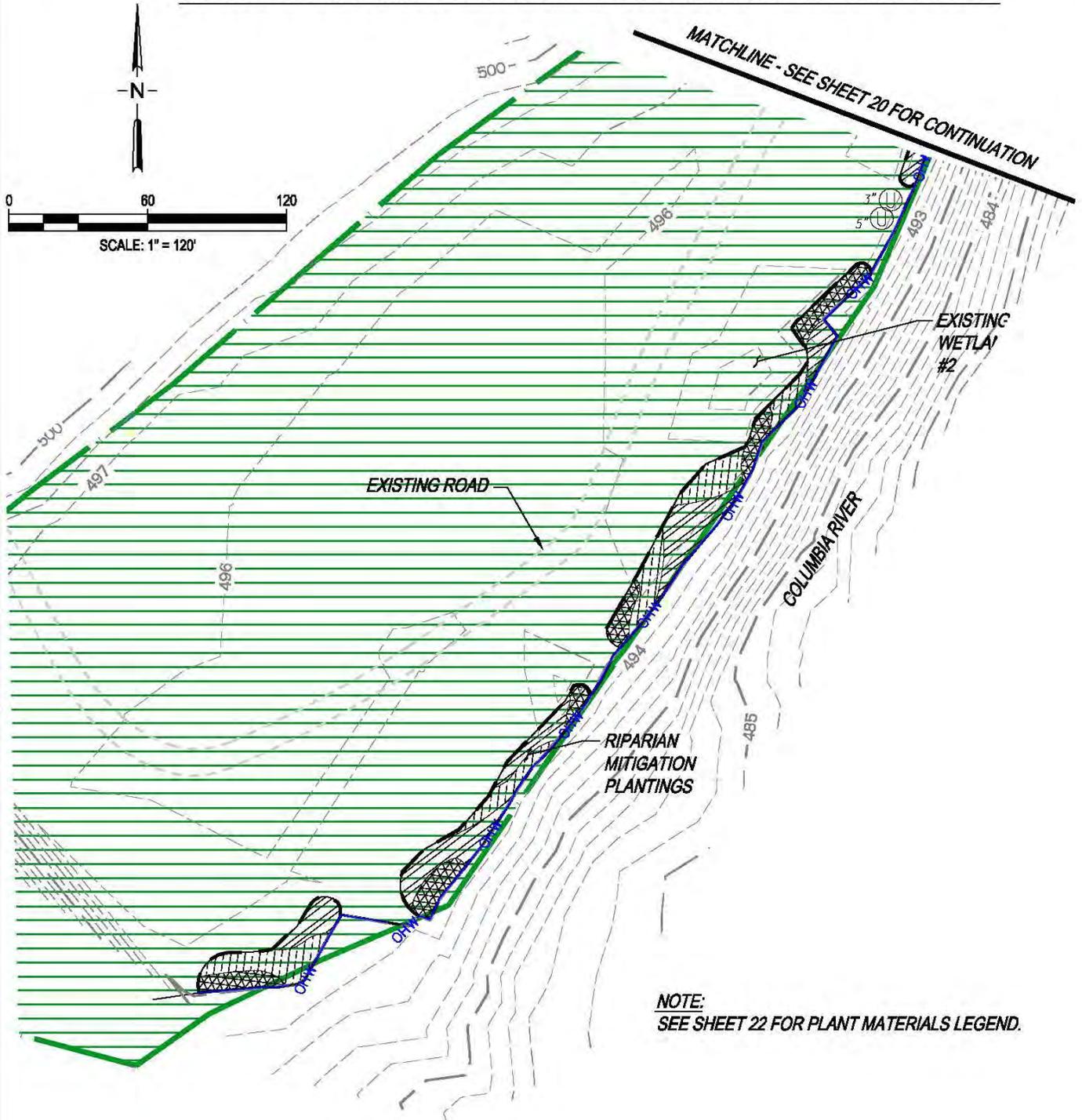
PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER
BOAT LAUNCH
MITIGATION SITE MAP**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
 SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA
SHEET 20 OF 28 **DATE:** 12/07/11

HUNTZINGER BOAT LAUNCH SITE RESTORATION / MITIGATION MAP



NOTE:
SEE SHEET 22 FOR PLANT MATERIALS LEGEND.

PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER
 BOAT LAUNCH
 MITIGATION SITE MAP**
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: NA

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: BEVERLY, WA (3.25 MILES TO SOUTH)
NEAR/AT: GRANT
COUNTY: STATE: WA
SHEET 21 OF 28 **DATE:** 12/07/11

DISTURBED AREA

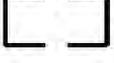
DISTURBANCE TO BE MITIGATED	IMPACT AREA
OVER WATER STRUCTURE AREA	718 SQFT
FACILITIES BELOW ORDINARY HIGH	1,858 SQFT
TOTAL	2,576 SQFT

PROPOSED MITIGATION AREA

MITIGATION AREA	PROPOSED
RIPARIAN MITIGATION AREA ^a	7,850 SQFT

^aRIPARIAN MITIGATION AREA INCLUDES PLANTING TO MITIGATION FOR BOTH OVER WATER STRUCTURE AREA & FACILITIES BELOW ORDINARY HIGH

PLANT MATERIALS LEGEND

symbol	description
	EXISTING TREES
	LIMIT OF SEEDING
	<p>WATER QUALITY SWALE SEED MIX: APPLICATION RATE: 1 LB PER 1,000 S.F. MULCH: BONDED FIBER MULCH APPLIED AT 1,500 LBS. PER ACRE.</p>

"WATER QUALITY SWALE SEED MIX"

COMMON NAME	BOTANICAL NAME	%
MACINTIRE SANDBURG BLUE GRASS	POA SECUNDA 'MCINTYRE'	30
SODAR STREAMBANK WHEATGRASS	AGROPYRON RIPARIUM	70



AMENDED RESTORATION PLANTING SEED MIX: "MID-COLUMBIA SANDY SITES SEED MIX"

AMEND THIS MIX TO INCLUDE ERIOGONUM NIVEUM (SNOW BUCKWHEAT) AT 1/10 LB PER 1,000 S.F. AND ERICAMERIA NAUSEAOSA (GRAY RABBIT BRUSH) AT 1/10 LB PER 1,000 S.F. OR APPROVED EQUAL. AVAILABLE FROM BFI NATIVE SEEDS, LLC MOSES LAKE, WA, (509)765-6348.

APPLICATION RATE: 1/10 LB PER 1,000 S.F.

MULCH: BONDED FIBER MULCH APPLIED AT 1,500 LBS. PER ACRE.

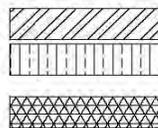
"MID-COLUMBIA SANDY SITES SEED MIX"

COMMON NAME	BOTANICAL NAME	%
BLUEBUNCH WHEATGRASS	AGROPYRON SPICATUM	36
INDIAN RICEGRASS	ACHNATHERUM HYMENOIDES	16
NEEDLE & THREAD GRASS	HESPEROSTIPA COMATA	8
SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	6
SANDBERG BLUEGRASS	POA SECUNDA	12
THICKSPIKE WHEATGRASS	ELYMUS LANCEOLATUS	22

WETLAND ENHANCEMENT PLANTINGS

COMMON NAME	BOTANICAL NAME	SIZE	SPACING	%	QUANTITY
RIPARIAN ZONE					
COYOTE WILLOW	SALIX EXIGUA	LIVE POLES	4' O.C.		726*
PACIFIC WILLOW	SALIX LASIANDRA	LIVE POLES	4' O.C.		670*
WATER BIRCH	BETULA OCCIDENTALIS	D40 TUBES	4' O.C.	10	11
BLACK COTTONWOOD	POPULUS TRICHOCARPA	D40 TUBES	4' O.C.	90	90

* LIVE POLES TO BE PLANTED IN CLUSTERS OF 3, WITH 3 LIVE CUTTINGS PLACED IN EACH HOLE TO INCREASE SUCCESS RATES. SEE PLANTING DETAIL 1, SHEET 26.



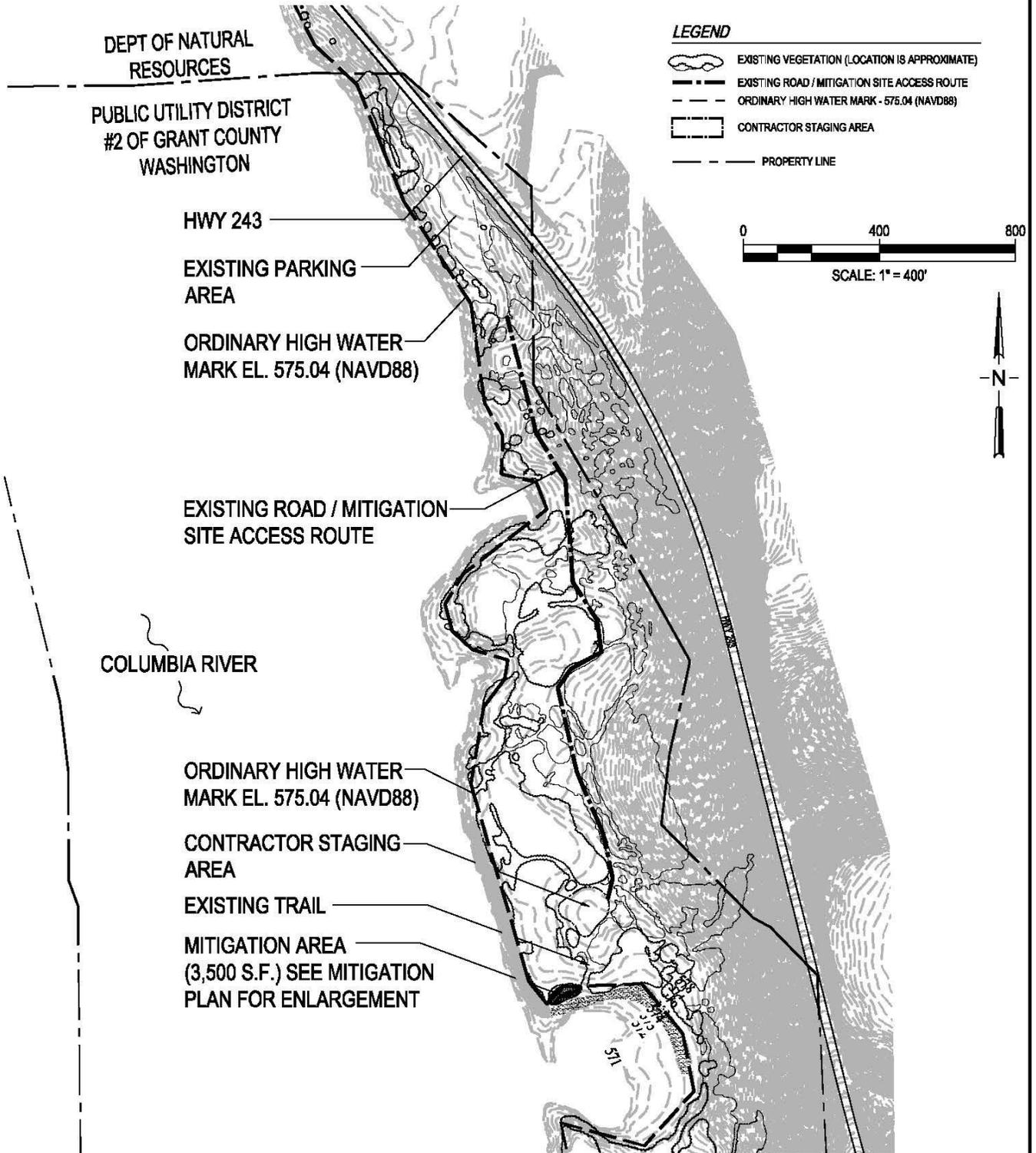
PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH PLANTING LEGEND

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #: _____
SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: _____
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA
SHEET: 22 OF 28 **DATE:** 12/07/11

SAND HOLLOW SITE ENLARGEMENT MAP



PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83

ADJACENT PROPERTY OWNERS:
PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER FISHING ACCESS SITE MITIGATION SITE MAP

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #: _____
SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR) BEVERLY, WA (3.25 MILES TO SOUTH)

IN: _____
NEAR/AT: _____
COUNTY: GRANT **STATE:** WA

SHEET 23 OF 28 **DATE:** 12/08/11

MITIGATION APPROACH NARRATIVE

THE MITIGATION MEASURES BEING PROVIDED AT THE SAND HOLLOW MITIGATION SITE ARE IN RESPONSE TO OVER-WATER IMPACTS AT THE UPPER WANAPUM DAM BOAT LAUNCH & HUNTZINGER FISHING ACCESS SITE, AS SHOWN ON THE "BOAT LAUNCH SITE PLAN" SHEET AND "HUNTZINGER FISHING ACCESS SITE SITE PLAN" SHEET. ONSITE MITIGATION WAS FOUND TO BE UNFEASIBLE DUE TO A LACK OF SUITABLE SOIL CONDITIONS FOR RIPARIAN PLANTING. THE SAND HOLLOW SITE IS APPROXIMATELY FOUR MILES UPRIVER FROM THE UPPER WANAPUM DAM BOAT LAUNCH. AT THE BOAT LAUNCH SITE, THE PROPOSED FLOAT LAUNCH WILL OCCUPY AN AREA OF APPROXIMATELY 683 SQUARE FEET AND THE HUNTZINGER FISHING ACCESS SITE PIER WITH OCCUPY AND AREA OF APPROXIMATELY 500 SQUARE FEET. PER THE GRANT COUNTY PUBLIC UTILITY DISTRICT'S WILDLIFE HABITAT MANAGEMENT PLAN MITIGATION REQUIREMENTS RATIO OF 3:1, THE TOTAL MITIGATION REQUIRED IS 3,489 SQUARE FEET. THE SAND HOLLOW MITIGATION SITE PROVIDES 3,500 SQUARE FEET OF MITIGATION, AS SHOWN ON THE "MITIGATION PLAN" SHEET. IT IS ANTICIPATED THAT THE PROPOSED MITIGATION MEASURES WILL RESULT IN A LONG-TERM BENEFICIAL EFFECT TO THE RIPARIAN HABITAT CONDITIONS ALONG THE MID-COLUMBIA RIVER AND WILL NOT ADVERSELY AFFECT FISH OR CRITICAL HABITAT. AS STATED IN SECTION 7A OF THE JARPA, THE FOLLOWING MEASURES ARE INTENDED TO AVOID AND MINIMIZE ADVERSE IMPACTS TO THE SAND HOLLOW WETLAND: LIMITING VEGETATION REMOVAL TO MOWING AND WEED EATING SO AS TO MINIMIZE SOIL DISTURBANCE AND EROSION, UTILIZING UNVEGETATED (E.G., SAND BEACHES OR GRAVEL BARS) OR PREVIOUSLY DISTURBED AREAS TO TEMPORARILY STOCKPILE PLANTING MATERIALS AND EQUIPMENT AND USING PLANT SPECIES NATIVE TO THE AREA TO REVEGETATE THE WETLAND.

WETLAND DELINEATION IMPACTS:

THE WETLAND, WHICH IS LOCATED MOSTLY BELOW THE ORDINARY HIGH WATER MARK OF THE COLUMBIA RIVER, IS VEGETATED WITH A MONOCULTURE OF REED CANARYGRASS. GIVEN THE LIMITED DISTURBANCE WITHIN THIS WETLAND, A FORMAL WETLAND DELINEATION WAS NOT CONDUCTED. HOWEVER THE APPROXIMATE BOUNDARY OF THE WETLAND WAS IDENTIFIED BY A QUALIFIED BIOLOGIST AND USED TO INFORM THE MITIGATION PLANTING PLAN. WETLAND IMPACTS WILL BE LIMITED TO REMOVAL OF REED CANARYGRASS, AN INVASIVE SPECIES, AND INSTALLATION OF NATIVE WILLOW AND ALDER STAKES WITHIN A PALUSTRINE, EMERGENT WETLAND LOCATED AT THE SOUTH SAND HOLLOW MITIGATION SITE. THE REED CANARYGRASS WILL BE REMOVED MANUALLY (I.E., MOWING OR WEED EATING); NO GRADING OR SCALPING OF TOPSOIL WILL OCCUR, NOR WILL HERBICIDES BE USED. ADDITIONALLY, INSTALLATION OF THE WILLOW AND ALDER STAKES WILL NOT REQUIRE EXCAVATION OF PLANTING HOLES AS THE STAKES WILL BE DRIVEN INTO THE SOIL.

CLEARING / WEED CONTROL:

THE MITIGATION AT SAND HOLLOW INCLUDES REMOVING NOXIOUS WEEDS. THE DOMINANT INVASIVE SPECIES IS REED CANARY GRASS (PHALARIS ARUNDINACEA). DUE TO THE MITIGATION SITE'S PROXIMITY TO THE RESERVOIR, CHEMICALS WILL NOT BE USED. PRIOR TO PLANTING, CREWS WILL CUT THE GRASS TO THE GROUND WITH A STRING TRIMMER. AFTER THE PLANT MATERIALS ARE INSTALLED, THEY WILL BE SURROUNDED BY TREE PROTECTION FENCING. THE CONTRACTOR WILL CONTINUE TO CUT DOWN THE REED CANARY GRASS THROUGHOUT THE GROWING SEASON. AS THE PLANTS MATURE, THEY WILL SHADE OUT THE CANARY REED GRASS.

ADDITIONALLY, THERE ARE SMALL AMOUNTS OF PURPLE LOOSESTRIPE (LYTHRUM SALICARIA) AND HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS) GROWING AT THE MITIGATION SITE. THE PURPLE LOOSESTRIPE WILL BE HAND-PULLED, REMOVING AS MUCH OF THE ROOT SYSTEM AS POSSIBLE. IF THE PLANT HAS GONE TO SEED AT THE TIME OF REMOVAL, THE FLOWER SPIKE WILL BE REMOVED AND PLACED INTO A BAG. THE FLOWER SPIKE WILL BE PROPERLY DISPOSED OF IN ORDER TO PREVENT FURTHER GERMINATION AND SPREADING OF THE PLANT.

BECAUSE THE MITIGATION SITE IS AT THE ORDINARY HIGH WATER MARK, GROWTH OF THE BLACKBERRY IN THE IMMEDIATE PROXIMITY IS LIMITED BY HYDROLOGY. ANY BLACKBERRY GROWING WITHIN TEN FEET OF THE MITIGATION SITE WILL BE MOWED OR CUT IN THE EARLY PART OF THE GROWING SEASON. FOLLOWING THE INITIAL CUTTING, ANY NEW CANES WILL BE CUT TO THE GROUND THROUGHOUT THE GROWING SEASON.

ANY OTHER NOXIOUS SPECIES FOUND ON THE WASHINGTON STATE NOXIOUS WEED LIST WILL ALSO BE REMOVED FROM THE MITIGATION SITE. THESE SPECIES WOULD BE CUT WITH A STRING TRIMMER OR BY HAND. ALL NOXIOUS WEEDS WILL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED LOCATIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR WEED CONTROL FOR A TWO YEAR PERIOD FOLLOWING SUBSTANTIAL COMPLETION. FOLLOWING THIS, THE GRANT COUNTY PUD WILL BE RESPONSIBLE FOR WEED CONTROL FOR AN ADDITIONAL THREE YEAR PERIOD.

PLANTING:

AT THE SAND HOLLOW MITIGATION SITE, PLANTING METHODS INCLUDE USING LIVE STAKES, PLUGS AND D-40 TUBES OF NATIVE PLANT SPECIES TO RE-ESTABLISH NATIVE HABITAT. THE NATIVE RIPARIAN PLANTING SPECIES INCLUDE LAKESHORE SEDGE (CAREX LENTICULARIS), CREEPING SPIKERUSH (ELEOCHARIS PALUSTRIS) AND HARDSTEM BULRUSH (SCHOENOPLECTUS ACUTUS). THE TRANSITION SPECIES INCLUDE RIVER ALDER (ALNUS TENUIFOLIA), WATER BIRCH (BETULA OCCIDENTALIS), BLACK COTTONWOOD (POPULUS TRICOCARPA), COYOTE WILLOW (SALIX EXIGUA) AND THE PACIFIC WILLOW (SALIX LASIANDRA). LIVE STAKES WILL BE COLLECTED FROM LOCAL STANDS OF DORMANT PLANTS GROWING IN SIMILAR ENVIRONMENTAL AND CLIMATOLOGICAL CONDITIONS. AVAILABILITY OF THE CONTAINERIZED PLANT MATERIALS HAVE BEEN CHECKED. 10" PLUGS OF SEDGES AND RUSHES WILL BE INSTALLED AT 1' O.C. BELOW OHWM AS SHOWN ON THE MITIGATION PLAN. LIVE STAKES AND D-40 TUBES WILL BE GROUPED ACCORDING TO SPECIES, WITH SHRUBS PLANTED IN GROUPS OF 4-5' PLANTED AT 5' O.C. AND TREES SPACED AS SHOWN ON THE PLANS. THE DISTRIBUTION AND SPACING OF THE PLANT MATERIALS HAS BEEN DESIGNED TO RECREATE A NATURALIZED APPEARANCE. THE PLANT MATERIALS WILL BE INSTALLED WITH A PLANTING BAR, WHICH WILL NOT REQUIRE SOIL TO BE EXCAVATED. THE PLANTING INSTALLATION WILL TAKE PLACE FROM OCTOBER 15 - MARCH 15. PLANTING WILL NOT TAKE PLACE ON DAYS COLDER THAN 32 DEGREES OR WARMER THAN 80 DEGREES.

WATERING:

BECAUSE THERE IS NO WATER SOURCE AT THE MITIGATION SITE, THE CONTRACTOR WILL BE RESPONSIBLE FOR WATERING THE PLANT MATERIALS BY HAND. THIS WILL BE ACCOMPLISHED BY WAY OF A BACKPACK WATERING SYSTEM.

MONITORING AND MAINTENANCE:

THE MITIGATION SITE WILL BE MONITORED AND MAINTAINED BY GRANT COUNTY PUD FOR A THREE YEAR PERIOD. MITIGATION SITES WILL BE MAINTAINED TO ENSURE THAT THE MITIGATION AND MANAGEMENT PLAN OBJECTIVES ARE SUCCESSFUL. MONITORING AND MAINTENANCE INCLUDES ROUTINE CUTTING AND HAND PULLING OF THE REMAINING REED CANARY GRASS AS WELL AS THE RIGOROUS, AS-NEEDED ELIMINATION OF OTHER UNDESIRABLE PLANTS. IT ALSO INVOLVES PROMOTING THE GROWTH OF THE MITIGATION PLANTINGS AND PROTECTING THEM FROM THE COMPETITION OF OTHER GRASSES AND HERBACEOUS PLANTS. CORRECTIVE ACTIONS WILL BE TAKEN TO RECTIFY PROBLEMS. AS REQUIRED, BROWSING DAMAGE WILL BE REPAIRED AND ANY DEAD PLANTS WILL BE REPLACED. MONITORING REPORTS WILL BE COMPLETED 1 AND 3 YEARS AFTER THE MITIGATION INSTALLATION.

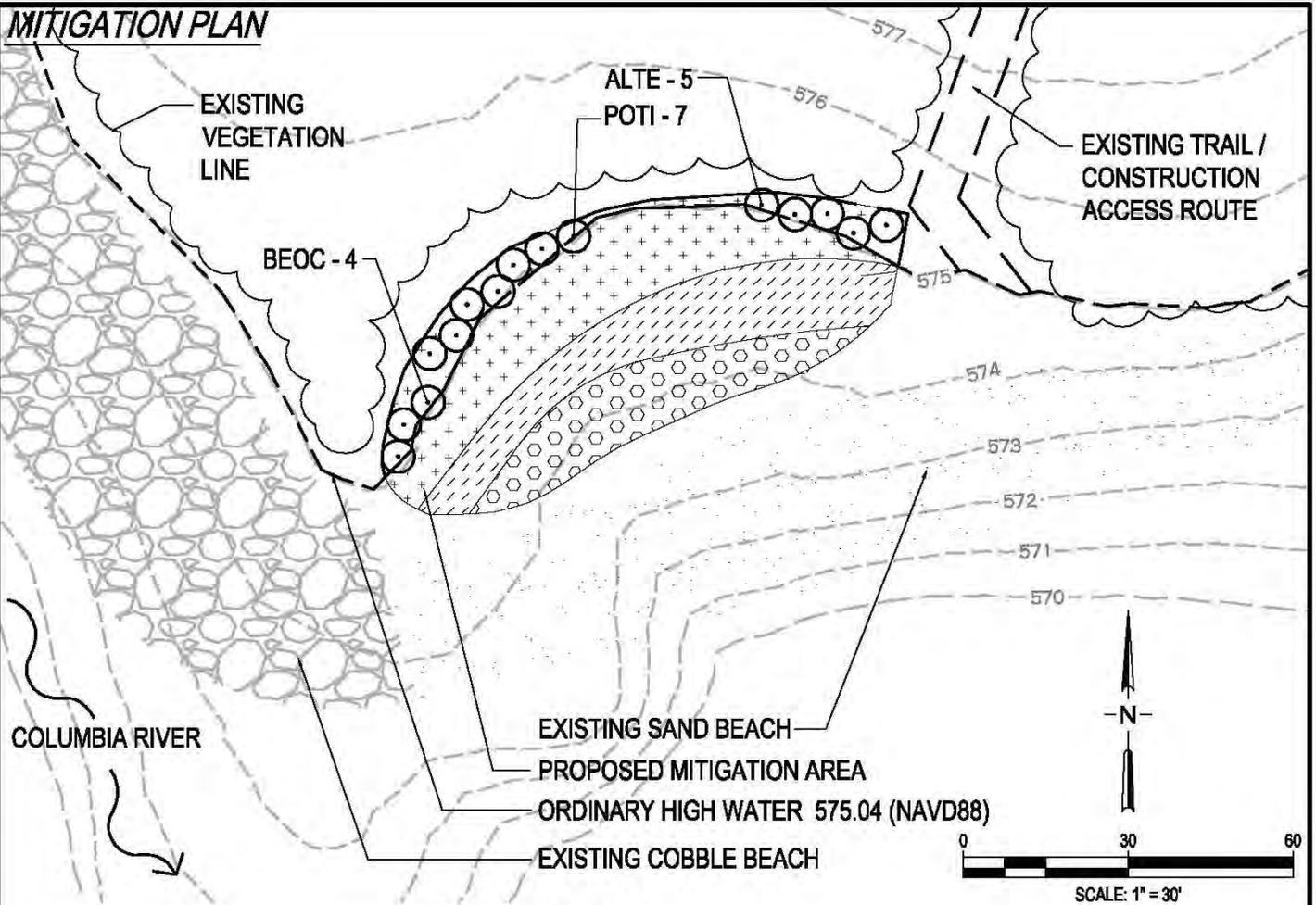
PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS:
 PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

**HUNTZINGER FISHING
ACCESS SITE
MITIGATION NARRATIVE**

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
 REFERENCE #:
 SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: COLUMBIA RIVER (WANAPUM RESERVOIR)
NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA
SHEET: 24 OF 28 **DATE:** 2/22/12

MITIGATION PLAN



LEGEND

-  EXISTING VEGETATION (LOCATION IS APPROXIMATE)
-  EXISTING TRAIL / CONTRACTOR ACCESS ROUTE
-  ORDINARY HIGH WATER MARK - 575.04 (NAVD88)

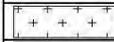
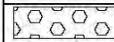
MITIGATION AREA

MITIGATION AREA PROPOSED WANAPUM DAM UPPER BOAT LAUNCH	1,989 SF
MITIGATION AREA PROPOSED HUNTZINGER PUBLIC ACCESS FISHING PIER	1,500 SF
PROPOSED MITIGATION AREA	3,500 SF

WATER LINE

ORDINARY HIGH WATER	575.04
MAX HIGH WATER	578.74
LOW WATER	563.14
*NAVD88	

NATIVE PLANT SCHEDULE

	BOTANICAL NAME	COMMON NAME	SIZE AT PLANTING	SPACING	GROUPING	# OF PLANTS	DETAIL
NATIVE TREES							
	ALTE	ALNUS TENUIFOLIA	RIVER ALDER	D40 TUBE	AS SHOWN	5	3 L1.3
	BEOC	BETULA OCCIDENTALIS	WATER BIRCH	D40 TUBE	AS SHOWN	3	3 L1.3
	POTI	POPULUS TRICOCARPA	BLACK COTTONWOOD	D40 TUBE	AS SHOWN	7	3 L1.3
NATIVE SHRUBS							
	SALIX EXIGUA	COYOTE WILLOW	LIVE STAKE	GROUPS AT 8' O.C.	5	407	1,5,6 L1.3
	SALIX LASIANDRA	PACIFIC WILLOW	LIVE STAKE	GROUPS AT 8' O.C.	5	145	1,5,6 L1.3
NATIVE SEDGES & RUSHES							
	CAREX LENTICULARIS	LAKESHORE SEDGE	10" PLUG	1' O.C.	7-11"	286	2,4 L1.3
	ELEOCHARIS PALUSTRIS	CREEPING SPIKERUSH	10" PLUG	1' O.C.	7-11"	286	2,4 L1.3
	SCHOENOPLECTUS ACUTUS	HARDSTEM BULRUSH	10" PLUG	1' O.C.	7-11"	286	2,4 L1.3

* PLANT GROUPS OF LIKE SPECIES TO REFLECT A NATURALIZED PLANTING COMMUNITY

PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83

ADJACENT PROPERTY OWNERS:
PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER FISHING ACCESS SITE MITIGATION PLAN

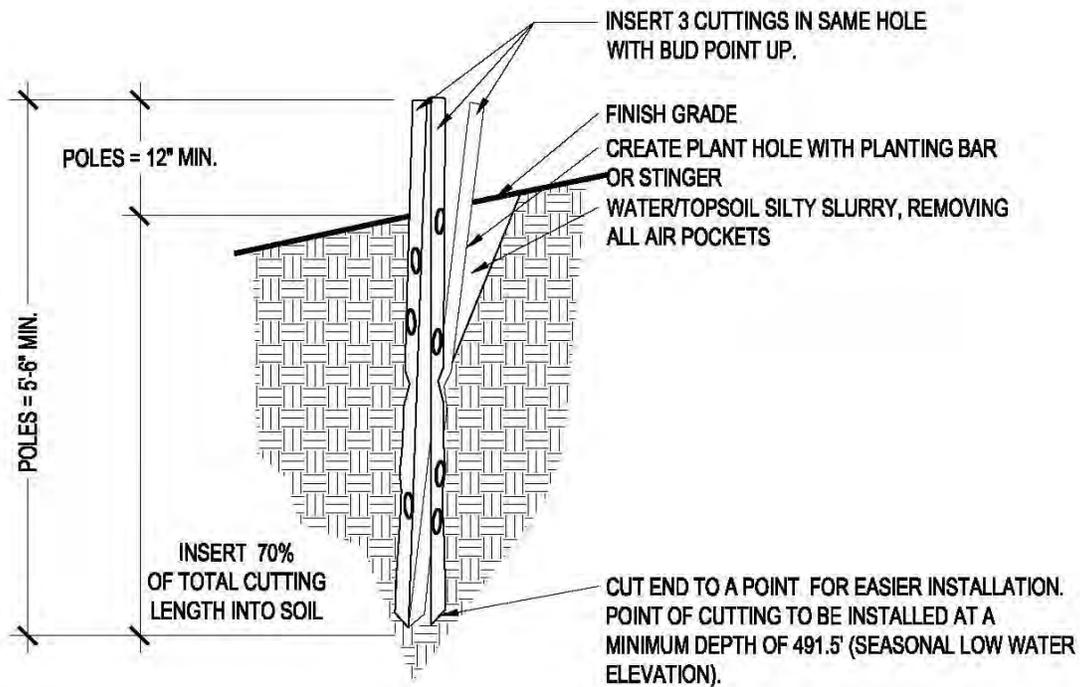
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: N/A

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)

IN: NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)
COUNTY: GRANT **STATE:** WA

SHEET 25 OF 28

DATE: 2/22/12



1 **LIVE CUTTING PLANTING**
SCALE: 3/4" = 1'-0"

PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.

DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83

ADJACENT PROPERTY OWNERS:
PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE

PLANTING DETAILS

APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON

REFERENCE #:
SITE ADDRESS: NA

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING

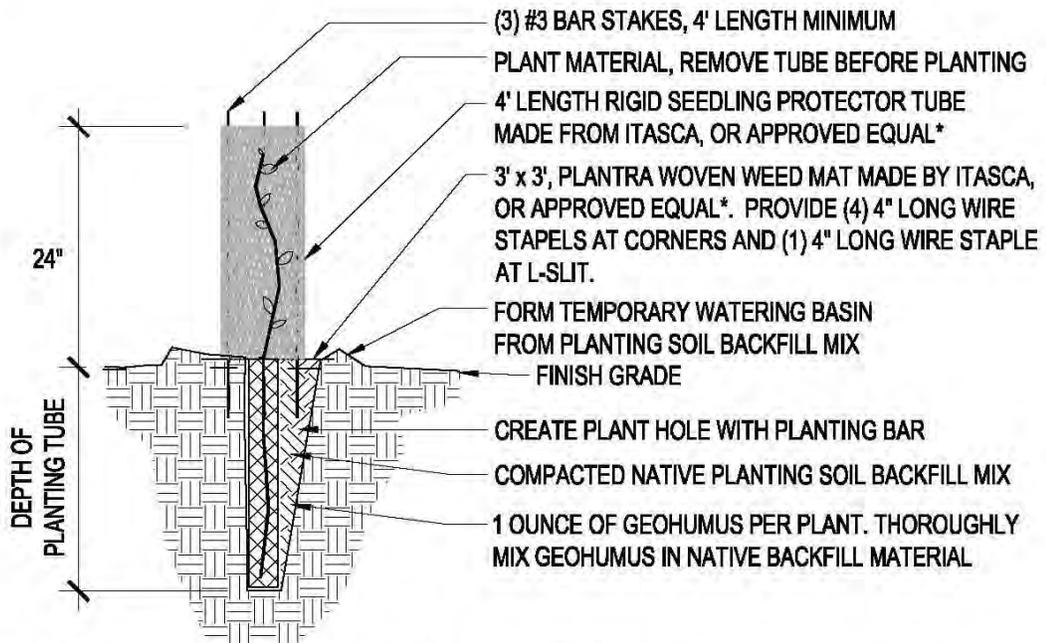
IN: COLUMBIA RIVER (WANAPUM RESERVOIR)

NEAR/AT: BEVERLY, WA (3.25 MILES TO SOUTH)

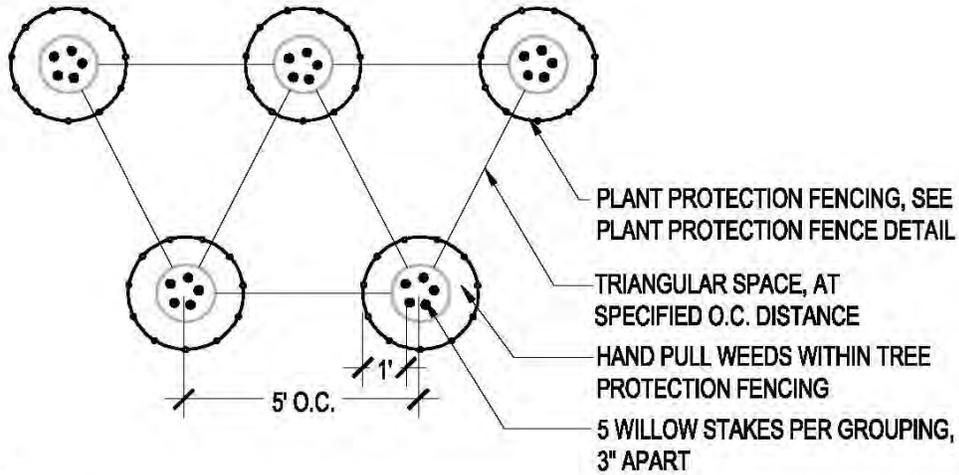
COUNTY: GRANT **STATE:** WA

SHEET 26 OF 28 **DATE:** 12/08/11

* BROWSING PROTECTOR TUBES AND PLANTRA WOVEN WEED MATS CAN BE PURCHASED FROM ITASCA GREENHOUSE, INC. COHASSET, MN 55721 (800)-538-TREE



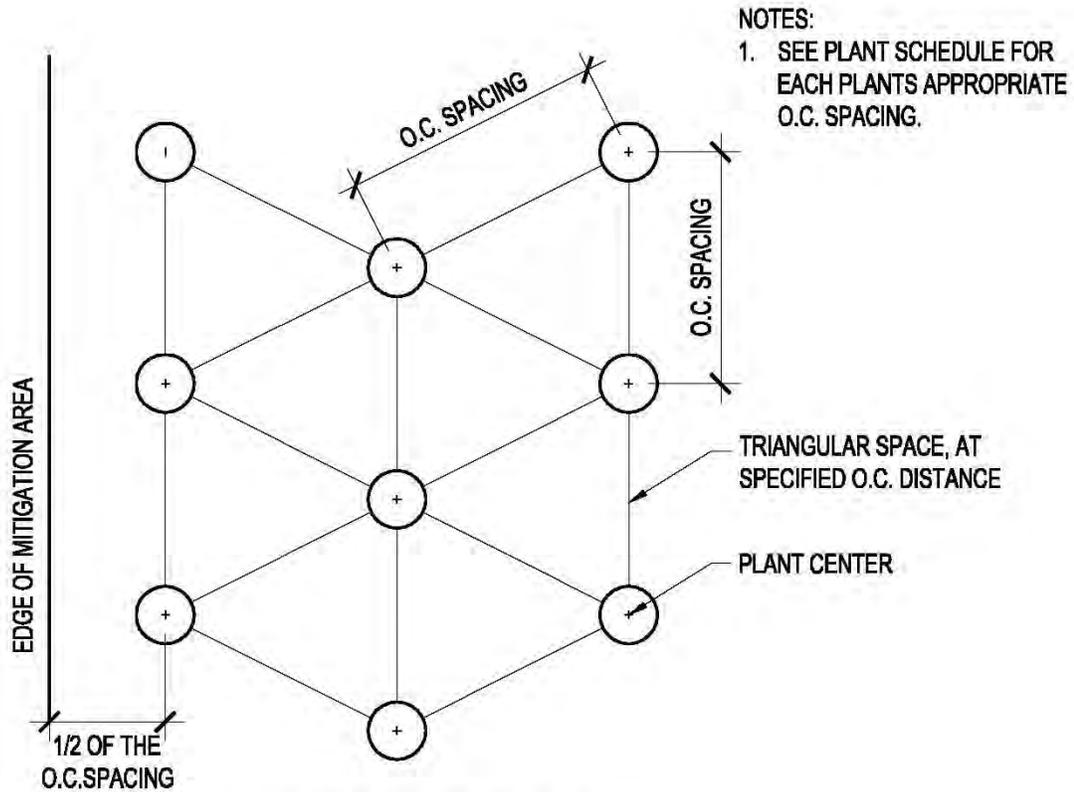
1 BROWSING PROTECTION & INSTALLATION
SCALE: 3/4" = 1' - 0"



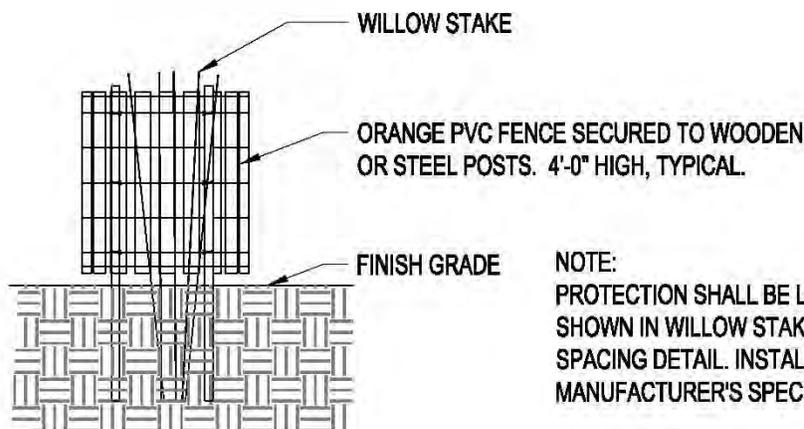
- NOTES:
1. SEE PLANT SCHEDULE FOR EACH PLANTS APPROPRIATE O.C. SPACING.

2 WILLOW STAKE PLANT LAYOUT AND SPACING
NOT TO SCALE

<p>PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.</p> <p>DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83</p> <p>ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN</p>	<p align="center">HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE PLANTING DETAILS</p> <p>APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON</p> <p>REFERENCE #: _____</p> <p>SITE ADDRESS: WA</p>	<p>PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)</p> <p>IN: BEVERLY, WA (3.25 MILES TO SOUTH)</p> <p>COUNTY: GRANT STATE: WA</p> <p>SHEET 27 OF 28 DATE: 12/08/11</p>
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1 **SEDGE AND RUSH PLANT SPACING**
NOT TO SCALE



2 **PLANT PROTECTION FENCE**
NOT TO SCALE

PURPOSE: UPGRADE EXISTING PUBLIC BOAT LAUNCH FACILITY (UPPER BOAT LAUNCH) AND MITIGATE FOR BOAT LAUNCH OVER-WATER IMPACTS OFF-SITE AT SOUTH SAND HOLLOW.
DATUM: VERTICAL: NAVD 88 HORIZONTAL: NAD 83
ADJACENT PROPERTY OWNERS: PUD #2 OF GRANT COUNTY, USACOE, USBR, USBLM, BROWN

HUNTZINGER BOAT LAUNCH & FISHING PIER ACCESS SITE
PLANTING DETAILS
APPLICANT: PUBLIC UTILITY DISTRICT #2 OF GRANT COUNTY, WASHINGTON
REFERENCE #:
SITE ADDRESS: NA

PROPOSED: DREDGE, FILL, NEW FLOAT, PARKING LOT EXPANSION & PAVING, ACCESS DRIVE PAVING/REPAIR, AND MITIGATION PLANTING COLUMBIA RIVER (WANAPUM RESERVOIR)
IN: BEVERLY, WA (3.25 MILES TO SOUTH)
NEAR/AT: GRANT
COUNTY: STATE: WA
SHEET 28 OF 28
DATE: 12/08/11